DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 107, 171, 172, 173, 174, 176, 177, 178, 179, and 180

[Docket No. PHMSA–2018–0080 (HM–265)]

RIN 2137–AF41

Hazardous Materials: Advancing Safety of Highway, Rail, and Vessel Transportation

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

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: PHMSA proposes to revise the Hazardous Materials Regulations to adopt several modal-specific amendments that would enhance the safe transportation of hazardous materials in commerce. PHMSA, in consultation with the Federal Motor Carrier Safety Administration, the Federal Railroad Administration, and the United States Coast Guard, proposes amendments identified during Departmental review and from industry petitions for rulemaking.

DATES: Comments must be received by January 27, 2025. To the extent possible, PHMSA will consider late-filed comments as a final rule is developed.

ADDRESSES: You may submit comments identified by the Docket Number PHMSA–2018–0080 (HM–265) by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 1–202–493–2251.
- *Mail:* Docket Management System; 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:* Docket Management System; Room W12–140 on the ground floor of the West Building, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except federal holidays.

Instructions: All submissions must include the agency name and Docket Number (PHMSA–2018–0080) or Regulation Identifier Number (RIN) (2137–AF41) for this rulemaking at the beginning of the comment. To avoid duplication, please use only one of these four methods. All comments received will be posted without change to the Federal Docket Management System (FDMS) and will include any personal information you provide.

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**).

Confidential Business Information: Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' Submissions containing CBI should be sent to Eamonn Patrick, Office of Hazardous Materials Safety, Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Ave. SE, Washington, DC 20590–0001. Any commentary that PHMSA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *http://www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *http://www.dot.gov/privacy.*

FOR FURTHER INFORMATION CONTACT: Eamonn Patrick, Standards and Rulemaking Division, 202–366–8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

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I. Executive Summary

The Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to amend the requirements for the transportation of hazardous materials set out in the Hazardous Materials Regulations (HMR) (49 Code of Federal Regulations (CFR) parts 171 to 180) and 49 CFR part 107. This rulemaking aims to amend provisions specific to the highway, rail, and vessel transportation of hazardous materials.

In this notice of proposed rulemaking (NPRM), PHMSA proposes to reform modal specific requirements in the HMR. PHMSA expects that the adoption of these proposals will maintain or enhance the safe transportation of hazardous materials while increasing the clarity of the HMR, and therefore decreasing compliance burdens. The proposed amendments also reflect changing conditions and trends that affect the safe transportation of hazardous materials while still maintaining or enhancing safety. The following are some of the more noteworthy subjects covered by proposed revisions:

- Rail tank car use requirements as recommended by the Rail Safety Advisory Committee (RSAC);

- Rail tank car and service equipment design approval requirements;
- Highway cargo tank specifications and requalification requirements; and
- Marking requirements for cargo tanks that contain multiple petroleum distillate fuels.

In this rulemaking, PHMSA solicits comment from the public and regulated community on these proposed amendments, specifically pertaining to the need for, benefits, and costs of the proposed amendments; impact on safety; public interest; and any other relevant concerns. In its preliminary regulatory impact analysis (PRIA), PHMSA concluded that the aggregate benefits of the proposed amendments justify their aggregate costs. PHMSA estimates annualized net benefits at a two percent discount rate of approximately $97.3 million per year. Details on the estimated cost savings and benefits of this rulemakings can be found in the PRIA, which is available in the public docket for this rulemaking.

II. Background

The Federal Hazardous Materials Transportation Act (HMTA; 49 U.S.C. 5101 *et seq.*) at 49 U.S.C. 5103 gives the Secretary general authority to issue regulations for the safe transportation of hazardous materials in commerce. The Secretary delegates the above statutory authorities to PHMSA at 49 CFR 1.97.

A. Railroad Safety Advisory Committee

RSAC is a Federal Advisory Committee established by the U.S. Secretary of Transportation in accordance with the Federal Advisory Committee Act (5 U.S.C. App. 2) to provide information, advice, and recommendations to the Federal Railroad Administration (FRA) Administrator on matters relating to railroad safety. In 1996, FRA established RSAC to develop new regulatory standards, through a collaborative process, with all segments of the rail community working together to fashion mutually satisfactory solutions on safety regulatory issues. PHMSA participates in RSAC when issues related to hazardous material transportation are discussed, and participated in the development of the proposed recommendations in this rulemaking. On November 5, 2015, the RSAC accepted Task No. 15–04: ''Hazardous Materials Issues,'' which assigned the Hazardous Materials Issues Working Group (HMIWG) to consider several revisions to the HMR to enhance the safety of hazardous materials transported by rail.[1] Consensus-approved regulatory change proposals were developed by the HMIWG and forwarded to the RSAC for consideration. On May 25, 2017, the RSAC voted and approved HMIWG's consensus recommendations of changes to the HMR (hereafter referred to as the consensus recommendations) and submitted the suggested revisions to FRA. FRA subsequently recommended that PHMSA initiate a rulemaking to propose and adopt the consensus recommendations. In this rulemaking, PHMSA proposes to adopt the RSAC consensus recommendations with some modifications. Note that not all of the consensus recommendations are proposed as received. Rather, this rulemaking includes some revisions to the recommendations to better fit the construction of the HMR; to provide more appropriate amendatory instruction to the Office of the Federal Register; and to address some technical issues discovered during detailed review of the proposed regulatory text that was provided in the recommendation.

The consensus recommendations propose to make amendments to update, clarify, or remove existing requirements that are outdated or unnecessary. They propose the following changes, among others: (1) require tank car facilities to apply for and receive a DOT registration letter from PHMSA assigning a registration number prior to qualifying tank cars for service; (2) incorporate by reference updated versions of certain industry standards, including the Association of American Railroads (AAR) Manual of Standards and Recommended Practices Section C–III Specifications for Tank Cars (M–1002); and (3) revise the requirements for One-Time Movement Approvals (OTMAs). These changes are discussed in greater detail later in ''Section IV. Section-by-Section Review.''

On August 27 and 28, 2013, FRA held a public meeting[2] to invite stakeholders and the public to participate in a comprehensive review of part 174 of the HMR, to improve the safety of railroad transportation of hazardous materials. Specifically, FRA sought comment on identifying provisions of part 174—Carriage by Rail—that are outdated, unclear, no longer necessary, present an undue economic burden on the regulated community, are inconsistent with other North American standards and regulations (such as those issued by the AAR and Transport Canada), do not sufficiently address modern safety concerns, or do not sufficiently address technological advancements and procedural changes in the railroad operating environment. FRA included specific requests for comment on the public meeting agenda for a review of definitions and abbreviations (§ 171.8); notice to train crews (§ 174.24); nonconforming or leaking packages (§ 174.50); packagings, cargo tanks, and multi-unit tank car tanks in Tank-on-Flatcar (TOFC) and Container-on-Flatcar (COFC) service (§§ 174.61 and 174.63), tank car unloading (§ 174.67); switching placarded railcars, transport vehicles, freight containers and bulk packagings (§ 174.83); position of railcars (§ 174.85); as well as an open discussion on part 174. In its consensus recommendations, the RSAC addressed many of the issues identified and discussed during this public meeting. See ''Section IV. Section-by-Section Review'' for discussion of specific proposed changes because of the public meeting comments and RSAC deliberations.

B. AAR Authority To Approve the Design of Tank Cars and Quality Assurance Programs

1. Introduction

The design, construction, maintenance, and qualification of tank cars used to transport hazardous materials are complex regulatory topics. Tank cars are the largest type of hazardous materials packaging in use in surface transportation, and the consequence of failure during transportation can be—and has been—catastrophic. The HMR currently delegate tank car and service equipment design approval and tank car facility Quality Assurance Program (QAP) approval to the AAR Tank Car Committee (TCC). The AAR TCC is a body of representatives drawn from the railroads, tank car shippers, and the tank car manufacturing, maintenance, and repair industry. The AAR TCC approves tank car designs and manages QAP approval, as well as develops its own standards for the design and operation of tank cars. PHMSA and FRA provide regulatory oversight to the AAR TCC approval process to ensure the committee is operating within the HMR's purview. The process by which the AAR TCC approves tank car and service equipment designs, materials, and construction, and conversion or alteration, is not specified in § 179.3; however, typically the committee votes on the proposed designs, materials, and

[1] More information about the RSAC, including HMIWG meeting minutes and other supporting documents can be found at: *https://rsac.fra.dot.gov/*.

[2] Comments from various associations and members of the public can be found at: *https://www.regulations.gov/docket?D=FRA-2013-0067*.

construction, and conversion or alteration based on AAR TCC staff review of design drawings and/or service trial results. The approval of QAPs is handled similarly via a vote of the AAR TCC after the facility has been audited by AAR Bureau of Explosives auditors. Audit scheduling, procedure, and recommendation for approval or denial is conducted wholly at the discretion of the AAR.

The HMR require each tank car facility to maintain a QAP that meets the requirements of § 179.7, with the intent that a properly implemented QAP will:

- Ensure the qualified tank car conforms to the requirements of the applicable specification and regulations;
- Identify any defects in the tank car manufacturing, repair, inspection, testing, and qualification or maintenance program; and
- Prevent any non-conformity from recurring.

Specifically, tank car facility QAPs must—at a minimum—address the elements in § 179.7(b)–(e), including verification of construction materials, monitoring and control of processes, and qualification of personnel.

PHMSA and FRA initiated a review of the current regulations in part 179—Specifications for Tank Cars—that require both tank car design and tank car facility QAPs to be approved by the AAR TCC. Additionally, PHMSA and FRA recognize that the scope of the definition of *tank car facility* has created confusion among tank car shippers and in the tank car manufacturing and maintenance industry. In this rulemaking, PHMSA proposes to revise the definition of *tank car facility* to reduce confusion and uncertainty in the regulated community. In conjunction with the other rail-specific changes proposed in this rule, this change will improve safety of rail transportation through increased awareness of who qualifies as a tank car facility and who specifically must comply with the HMR requirements for that facility (*see* ''Section II.B.4 Tank Car Facility Definition'' for further discussion on this issue).

PHMSA and FRA have determined that the current system requiring AAR approval for tank car facility QAPs and tank car designs creates a regulatory bottleneck without commensurate safety benefits for the regulated industry. As such, PHMSA proposes revisions to the current system to relieve confusion and increase the efficiency of the approval process (*see* ''Section II.B.2 Tank Car Design Approval'' and ''Section II.B.3 Tank Car Facility Quality Assurance Program'' for further discussion of these issues). The proposed revisions are intended to increase the efficiency of the tank car design and QAP approval process, without compromising safety, by increasing governmental oversight of regulated entities through a registration program. The following is a brief summary of proposed changes to the approval processes and the definition of *tank car facility* which PHMSA discusses in greater detail later in this section:

A. Remove the requirement for tank car and service equipment designs to be approved solely by the AAR TCC and replace it with a requirement for tank car designs to be approved by a tank car Design Certifying Engineer (DCE) registered with PHMSA. This proposed requirement closely mirrors the process for highway cargo tank design review and approval.

B. Remove the requirement for tank car facilities to have a QAP approved by the AAR and replace it with a requirement for tank car facilities to register with PHMSA, maintain a QAP, and certify that it meets the § 179.7 quality assurance program requirements.

C. Revise the definition of *tank car facility* to clarify that the definition applies to facilities that qualify a tank car for service, and to clarify what activities require qualification of a tank car.

D. Add a registration program for tank car DCEs and tank car facilities.

E. Revise the incorporation by reference (IBR) of specific chapters and appendices of the 2014 edition of the AAR *Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002* (*i.e., AAR Specifications for Tank Cars*) to correspond to the above proposals (*i.e.,* removing the requirement to comply with the specific sections of M–1002 that require AAR approval).

F. Revise the requirements for coating and lining inspection of tank cars to clarify what is expected.

G. Revise § 180.513—Repairs, alterations, conversions, and modifications—to clarify that tank car facilities must include the tank car owner's qualification and maintenance program into their QAP to correct an incorrect reference to including the tank car owner's QAP. Generally, a tank car owner is not subject to QAP requirements.

2. Tank Car Design Approval

Federal hazardous material transportation regulations have delegated the authority to approve tank car and service equipment designs to the AAR—and various predecessor organizations—since at least 1927. As provided in § 179.3, the AAR TCC has authority to approve tank car designs, materials and construction, conversion, or alteration of tank car tanks under the specifications of part 179. By way of example, § 179.100–12(a) requires that manway nozzles must be of approved design of forged or rolled steel for steel tanks. In this context, pursuant to the definition in § 179.2, ''approved'' refers to approval by the AAR TCC.

Although PHMSA has delegated the authority to approve tank car designs, the current state of the AAR's autonomous approval process presents inefficiencies when insufficient resources are available to process approval applications, resulting in unnecessary delays and increased costs for the tank car design and manufacturing community. As such, PHMSA and FRA propose to remove the requirement that tank car and service equipment designs receive approval solely through the AAR TCC before they are used in hazardous materials (hazmat) service. PHMSA and FRA propose to replace AAR TCC design approval with alternative approval by a tank car DCE, similar to the design approval structure for highway cargo tanks. The proposed tank car DCE requirement will include registration with PHMSA, and registrations will be subject to termination for cause, with the intent to create a more transparent, accountable tank car design approval system without any impact on the safety of such approved tank cars. ''Design certifying engineer'' is a defined term in the HMR in § 171.8, and currently only applies to engineers who can determine that a cargo tank design meets applicable DOT specification standards. PHMSA and FRA propose to revise the definition of DCE to include persons able to determine that a tank car meets applicable DOT specification standards. PHMSA and FRA propose that a tank car DCE must:

- Have an engineering degree and at least one year of work experience in tank car structural or mechanical design; or
- Be registered currently as a professional engineer by an appropriate authority of a state of the United States or a province of Canada.

As proposed, a tank car DCE may not use their experience in cargo tank structural or mechanical design to meet the experience requirement for tank car design, and vice versa for a cargo tank DCE. Based on our knowledge of the cargo tank and tank car industries, PHMSA believes it is unlikely that a company would attempt to register a

single engineer as both a tank car and cargo tank DCE. In the event this does occur, PHMSA would allow a single engineer to be registered as both a tank car and cargo tank DCE; however, they will need to acquire separate registrations: a cargo tank DCE registration as specified in subpart F of part 107, and a tank car DCE registration as specified in the proposed new subpart J of part 107. PHMSA has determined that maintaining separate registrations in the event that a single person holds both will simplify recordkeeping and enforcement by preventing unintended administrative hang-ups if one registration is allowed to lapse or termination proceedings are initiated. PHMSA requests comments on this proposed registration process.

Currently, the tank car design approval process is managed by the AAR TCC (see § 179.3). PHMSA and FRA attend AAR TCC meetings and participate in AAR TCC working groups on specific issues; however, the agencies do not manage the day-to-day operations of the AAR TCC. PHMSA and FRA have no voting power in the committee and little involvement in the day-to-day process by which the AAR TCC reviews and approves tank car designs. PHMSA and FRA retain full authority to set tank car safety standards through the adoption of tank car design specification requirements in part 179, and tank car use requirements in part 173. To provide additional context, there are approximately 130 instances in part 179 where the HMR requires that a tank car design feature (*e.g.,* the manner in which a tank car tank is attached to the car structure) [3] or item of service equipment (*e.g.,* a valve) [4] be ''approved.'' This approval is issued by the AAR TCC when the Committee determines that tank car tank or equipment is in compliance with the requirements of the HMR.[5] The AAR TCC is the only entity granted the authority to issue such approvals for tank car tanks and service equipment in the HMR.

PHMSA and FRA have determined that—based on experience participating in the current AAR TCC process—the process for tank car design approval is conducted in such a way that increases costs and delays to the regulated community, without a commensurate increase in safety that would justify these delays. The HMR create a single-source, prescriptive system, because only AAR TCC has the authority to approve an application for a tank car design, material of construction, conversion, or alteration under part 179 specifications. The HMR requirements for the review of a tank car design are well understood and include compliance with part 179 and other considerations that a tank car design must take into account (*e.g.,* lading properties, material compatibility, operating temperatures, etc.). There is little doubt that there are many engineers in the United States with tank car structural or mechanical design experience who could review and certify that a tank car's design meets the HMR requirements. Replacing AAR TCC approval with DCE approval as proposed will create a system that increases efficiency in the tank car design approval market by expanding the pool of authorized tank car design approval sources without impacting the safety of tank cars used to transport hazardous materials. The proposed system also includes documentation requirements for DCEs that will facilitate improved government oversight of the design approval process via periodic audits, and it would allow DCE registrations to be terminated for cause as further discussed below.

PHMSA and FRA expect that an individual with an engineering degree and tank car design experience or a registered professional engineer—thus meeting the § 171.8 definition of a tank car DCE—will be able to review the design of a tank car or service equipment and determine whether the design complies with the tank car specification requirements. This proposal will improve government oversight of the tank car approval process. Currently, PHMSA and FRA have limited ability to take enforcement action against the TCC for failures to comply with the requirements of the HMR. The current TCC design review procedures have allowed non-compliant tank cars to enter transportation, posing risks to lives and the environment. When non-compliant cars are discovered in transportation, FRA takes immediate action to protect rail workers and the public. This can include issuing a railworthiness directive to address the non-compliance. Audits of the TCC tank car design review process conducted by the Department have revealed systemic operational and processing issues within the TCC—specifically—that the TCC utilizes, approves, and certifies Independent Third Party (ITP) individuals for reviewing and verifying that the application meets all AAR and DOT design requirements. These audit findings still have not been addressed to date. Additionally, in the recent past, the TCC elected not to review and approve new designs for DOT–106 and DOT–110 multi-unit tank car tanks (commonly known as ''ton tanks''). The TCC's decision not to review and approve DOT–106 and DOT–110 designs created significant disruption for a packaging manufacturer and their customers. As a result, PHMSA expended resources to develop and issue a Special Permit [6] to allow the construction and use of these packagings to avoid disruption to commercial activities caused by the TCC's decision not to complete the role assigned to them in § 179.3. PHMSA and FRA are also concerned that the current system allows TCC to regulate entry to the market by controlling the approval process. Major tank car and service equipment (*e.g.,* valve) manufacturers are represented on the TCC. This creates a potential conflict of interest for the TCC when considering approval applications from firms that compete with companies its members represent. PHMSA and FRA have determined that due to unaddressed issues in the AAR TCC approval process, a recent history of a decision not to perform the role assigned in the HMR, and the potential for incumbent tank car industrial concerns to impact entry of competitors into the marketplace, we can no longer justify delegating authority for tank car design approval to the AAR TCC.

PHMSA and FRA expect that costs for reviewing and approving tank car designs will decrease by removing the single-source approval and the barriers of entry to the business of tank car design approval. The implementation of the proposed tank car DCE program will maintain at least an equivalent level of safety of tank car design by ensuring tank car DCEs maintain and adhere to a detailed written procedure to evaluate the compliance of a tank car design with the HMR's tank car specification and usage requirements. PHMSA and FRA will be able to exert substantially greater oversight over tank car DCEs than the AAR TCC, both through the modification, suspension, and termination procedures proposed in this NPRM, as well as through the civil and criminal penalty procedures applicable to all persons who perform activities subject to the HMR through 49 CFR parts 107, 109, and 49 U.S.C. 5123–5124.

PHMSA, in conjunction with our highway modal partner FMCSA, has experience overseeing a DCE program for the design approval of bulk

[3] See § 179.10.

[4] See § 179.200–16(b).

[5] See § 179.3.

[6] *https://www.phmsa.dot.gov/hazmat/documents/offer/SP14437.pdf/offerserver/SP14437.*

hazardous materials packages intended for highway transportation through the existing cargo tank DCE program. This experience makes us confident that private sector engineers, operating under governmental oversight through a registration program, can safely and effectively review a package (*i.e.,* a tank) design and ensure it complies in all respects with the relevant design requirements of the HMR. PHMSA and FRA intend to maintain direct oversight on the tank car design process through regular audits of tank car DCEs and reserve the right to terminate a tank car DCE registration for cause. Causes for registration termination include: (1) because of a change in circumstances the registration is no longer needed or would no longer be granted if applied for; (2) the application contained inaccurate or incomplete information and it would not have been granted had accurate and complete information been provided; (3) the application contained deliberately inaccurate or incomplete information; or (4) the registration holder knowingly violated the terms of the registration or an applicable requirement of 49 CFR Chapter I in a manner demonstrating lack of fitness to conduct the activity for which the registration is required. PHMSA emphasizes that criteria (4) can be used to bring enforcement action and potential modification, suspension, or termination proceedings against a tank car DCE who fails to maintain and follow an adequate written procedure that is used to verify conformance with the requirements of the HMR. *See* ''Section IV. Section 107.911'' for additional information on the termination of a tank car DCE registration.

By clearly describing the processes and procedures that the DCE must follow to approve a tank car design, PHMSA and FRA expect a high level of safety for tank car designs will be maintained. PHMSA proposes to require the DCE to review the same information and drawings currently required in the AAR Form 4–2. This commonality with existing design records is intended to minimize disruption during the transitional period and maximize tank car and service equipment manufacturer and DCE familiarity with the required documentation. The requirements proposed in §§ 179.3 and 179.5 are intended to create an accountable, auditable, criteria-based tank car design approval system that is more transparent to government oversight than the current system. The proposed requirements in §§ 179.3 and 179.5 are primarily based on the requirement for a tank car DCE to develop, maintain, and adhere to a written procedure describing the process used to verify a tank car or service equipment's design with the requirements of the HMR. This detailed procedure must include acceptance and rejection criteria for each tank car or service equipment design element approved by the DCE, which demonstrate the tank car or service equipment will meet the requirements of part 179 and retain the hazardous contents of the packaging in all normal conditions of transportation for the designed life of the packaging. PHMSA and FRA investigators and engineers will evaluate the detailed procedures during periodic audits to ensure the procedures adequately maintain compliance with part 179, and that the DCE is following the procedures. These general procedural requirements proposed in §§ 179.3 and 179.5 will allow tank car DCEs to determine the most efficient workflow for their business needs, while providing a clear basis for evaluation of a tank car DCE's procedures. These standards also provide a clear framework for PHMSA and FRA to conduct audits and determine whether lapses in a tank car DCE's performance warrant the issuance of a Notice of Probable Violation, or, in serious cases, initiation of modification, suspension, or termination proceedings.

The DCE registration program also may facilitate greater technological advancements in tank car and service equipment designs by facilitating greater access to tank car and service equipment design certification services. The proposed rule would enable other entities to approve tank car designs, potentially leading to more processing of innovative designs that meet the existing performance standards and their subsequent use in the transportation arena. In addition, opening these services up to other entities—rather than maintain the design approval process solely with AAR TCC—may increase competition within the industry as additional DCEs are registered and begin to provide tank car design approvals. This competition is expected to result in potential cost reductions for the regulated community.

To adequately oversee tank car DCEs, PHMSA and FRA propose to require that each DCE register with PHMSA and provide information on the types of design reviews the DCE will conduct. This will allow PHMSA and FRA to audit DCEs to ensure they are properly reviewing each tank car or service equipment design and only issuing approvals to those designs that meet the requirements of part 179. Each DCE must develop procedures, including acceptance and rejection criteria for the approval process, which demonstrate that the tank car or service equipment will meet the requirements of part 179 and the design level of reliability and safety for the hazardous materials service for which the tank car is intended. The registration requirement is necessary to assist PHMSA and FRA in performance of their oversight responsibilities to ensure all tank car DCEs are performing their design reviews with appropriate rigor, and thus that tank car designs are suitable for hazmat transportation. See discussion in section ''Section II.B.5 Tank Car Facility and Design Certifying Engineer Registration'' for additional details on the proposed registration program.

Therefore, PHMSA proposes to remove reference to AAR approval for tank car designs wherever it appears in the subchapter. A DCE registered with PHMSA would fill the tank car design approval role currently delegated to the AAR. Authorizing qualified individuals, registered with PHMSA, to review and certify tank car designs under PHMSA and FRA oversight will increase the level of safety provided by the HMR while increasing design review efficiency for the tank car design and manufacturing community. Finally, PHMSA notes this would not exclude the AAR staff or TCC members from registering as DCEs to continue to perform these approvals; however, it removes exclusive delegation and opens the market to all those who are qualified. AAR TCC may continue to provide approval services commercially, provided they register with PHMSA and follow the same requirements proposed in this NPRM that other tank car DCEs must follow.

3. Tank Car Facility Quality Assurance Program

Tank car facilities, as defined in § 179.2, are required to have a QAP that—among other items—has the means to detect non-conformities in the tank car manufacturing, repair, inspection, testing, and qualification or maintenance processes. Currently, each tank car facility's QAP must meet the requirements of § 179.7, which requires that the QAP be approved by the AAR. In this rulemaking, PHMSA proposes to remove the requirement that AAR approve a tank car facility's QAP. As a substitute, we propose to replace this requirement with a requirement that tank car facilities must register with PHMSA, certify that they maintain a QAP that meets the requirements of § 179.7, and include an executive summary of their QAP with their

registration statement. As proposed, the registration program will improve safety through increased PHMSA and FRA situational awareness of tank car facility activities and provide mechanisms to address non-compliance. PHMSA proposes to allow modification, suspension, or termination of a tank car facility registration for the following causes: (1) because of a change in circumstances, that the registration is no longer needed or would no longer be granted if applied for; (2) the application contained inaccurate or incomplete information and it would not have been granted had accurate and complete information been provided; (3) the application contained deliberately inaccurate or incomplete information; or (4) the registration holder knowingly violated the terms of the registration or an applicable requirement of 49 CFR Chapter I in a manner demonstrating lack of fitness to conduct the activity for which the registration is required. PHMSA emphasizes that criteria (4) above can be used to bring enforcement action and initiate modification, suspension, and termination proceedings against a tank car facility that fails to adhere to their QAP. A tank car facility's failure to adhere to a QAP could create unacceptable risks in the rail system and may cause unsafe tank cars to enter transportation.

The creation of the QAP requirement for tank car facilities was initiated based on a National Transportation Safety Board (NTSB) safety recommendation (R–88–63) [7] issued in response to a September 8, 1987, incident involving the release of butadiene from a tank car in New Orleans, Louisiana. In 1993, the Research and Special Programs Administration (RSPA)—PHMSA's predecessor agency—proposed the creation of the QAP requirement and definition of *tank car facility* in an NPRM (HM–201).[8] The primary intent of this requirement—as discussed in the preamble of HM–201—is to ensure each tank car manufacturing or repair facility has procedures in place to detect any nonconformity in the tank car manufacturing, maintenance, or repair process and has the means to prevent its recurrence.

In 1995, RSPA created the definition for the term ''tank car facility'' and a requirement for each tank car facility to maintain a QAP meeting the requirements of § 179.7 in final rule HM–175A and HM–201,[9] and made minor revisions to the requirements in a 1996 HM–175A and HM–201 corrections final rule.[10] The requirements of § 179.7 have not been modified substantively since.

PHMSA and FRA have found that the requirement for only AAR to review and approve each tank car facility's QAP creates an undue cost burden on the facility and creates delays in approving facility operation that hinder commerce. Additionally, PHMSA and FRA's experience auditing tank car facilities with QAPs approved by AAR TCC have revealed significant compliance issues with the current QAP approval process. For example, PHMSA and FRA have knowledge that on at least one occasion—over the course of many months—AAR did not take action on a facility that failed AAR Bureau of Explosives QAP audits. These negative findings demonstrated the facility's failure to maintain an effective QAP and, therefore, the company's inability to safely perform their tank car qualification functions as required by the HMR. Specifically, AAR did not take action to remove the certification of a tank car facility in Shoshone, Wyoming, (Wasatch Railroad Contractors) that had failed multiple QAP audits. This inaction allowed the facility to continue to operate without an effective QAP. FRA and PHMSA raised concerns that AAR has not adopted procedural changes to prevent this type of failure (*e.g.,* by immediately addressing findings) from recurring. Subsequently, on April 22, 2021, two employees were killed in an explosion while working inside a tank car.[11] FRA and PHMSA believe corrective action by AAR and the facility may have prevented such an incident by not allowing continued work on tank cars. In 2022, the owner of Wasatch Railroad Contractors was found guilty of five counts of wire fraud and one count of knowing endangerment for knowingly exposing employees to asbestos and placing them in imminent danger of death or serious bodily injury.[12]

Additionally, as part of AAR TCC's current QAP approval process, AAR requires that tank car facilities bear the expense on an initial certification audit and annual recertification audits thereafter. The initial certification process often takes several months, and the tank car facility has no recourse under the current HMR requirements but to accept AAR's timeline and fees. Additionally, the audit process does not increase the level of safety commensurate with the costs and delays it imposes. FRA inspectors regularly find violations of the HMR at facilities that AAR authorizes to operate through the current QAP approval process. FRA issues findings, tickets, and notices of probable violation to tank car facilities when it discovers non-compliance. When violations are systemic or significant, FRA uses its railworthiness authority to address similarly situated cars or fleets of cars.

Therefore, PHMSA and FRA propose to remove the requirement that tank car facilities submit their QAPs for approval to AAR and replace it with a requirement that each tank car facility register with PHMSA and certify that it has created and is maintaining a QAP that meets the requirements of § 179.7. As part of the registration requirement, PHMSA and FRA propose that the registrant must submit an executive summary of its QAP, demonstrating compliance with the elements required in § 179.7(b). Facilities may submit certifications from outside organizations, such as an external auditor, to serve as the executive summary or submit their own executive summary documents. PHMSA will administer the registration program for facilities, and FRA—in conjunction with PHMSA—will oversee tank car facility QAPs through regular facility compliance audits. PHMSA and FRA have limited oversight and control over the current AAR approval process for tank car facility QAPs. However, the observations that have been conducted, coupled with our enforcement oversight of the tank car fleet, provide PHMSA and FRA with significant concerns that the current system of AAR audits provides limited safety benefits compared to the burdens imposed. PHMSA and FRA expect the registration program combined with regular compliance audits by government personnel will maintain an equivalent or greater level of safety to the current requirements while reducing administrative delays caused by the AAR process. PHMSA and FRA emphasize that adhering to a rigorous QAP is critical for a tank car facility to ensure that the tank cars qualified for service at the facility meet the requirements of the tank car's specification and regulations. See ''Section II.B.5. Tank Car Facility and Design Certifying Engineer Registration'' for additional details on the proposed registration program.

[7] See NTSB Safety Recommendation R–88–063: *https://www.ntsb.gov/investigations/AccidentReports/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=R-88-063.*

[8] 58 FR 48485 (Sep. 16, 1993).

[9] 60 FR 49048 (Sep. 21, 1995).

[10] 61 FR 33250 (Jun. 26, 1996).

[11] *https://apnews.com/article/explosions-business-1aa330c562c393a74421e4a90b9394db.*

[12] *https://www.justice.gov/usao-wy/pr/wasatch-railroad-contractors-and-its-chief-executive-officer-sentenced-wire-fraud-and.*

PHMSA recognizes that this topic is the subject of an open petition P–1770 [13] submitted by AAR on October 21, 2022. This petition requests the removal of the AAR approval requirement for QAPs in accordance with § 179.7. The AAR petition requests that PHMSA replace AAR approval of QAPs with a requirement for tank car facilities to comply with an industry standard known as ''AAR M–1003—Specification for Quality Assurance.'' As described above, PHMSA believes that a performance-based approach to QAPs—along with registration with the Department and self-certification—is the best option. Our proposal allows for the use of accepted industry standards for quality assurance programs to meet the proposed safety requirements, but does not mandate one standard over another. This allows tank car facilities to implement the performance elements in the most appropriate manner for their operations. Therefore, in this NPRM, PHMSA is not proposing to incorporate by reference AAR M–1003 into § 179.7. PHMSA will consider any comments on this topic with respect to this NPRM as it evaluates petition P–1770.

4. Tank Car Facility Definition

PHMSA and FRA are aware that there is uncertainty in the tank car community related to the scope of the definition of ''tank car facility.'' This uncertainty impacts both tank car shippers and tank car manufacturers (including service equipment manufacturers). On October 8, 2019, PHMSA, in conjunction with FRA, issued Letter of Interpretation Reference No. 19–0117 [14] addressing the definition of ''tank car facility.'' PHMSA proposes to revise the definition of ''tank car facility'' consistent with Letter of Interpretation Reference No. 19–0117 so that the definition applies only to the facility that qualifies the tank car for service. That is, for example, an equipment manufacturer of a pressure valve used in the construction of a tank car is not a tank car facility solely on the basis of manufacturing a component part of a specification tank car. The determining factor on the applicability of the ''tank car facility'' definition is whether the facility qualifies a tank car for service. The tank car facility that qualifies the tank car for service is responsible for ensuring the conformity of the entire tank car, including service equipment, with the approved specification. Additionally, PHMSA proposes to revise the definition of ''service equipment'' in § 180.503 to clarify what constitutes ''service equipment'' consistent with our expectations in revising the definition of a tank car facility. Service equipment is pressure or lading retaining equipment. Examples include pressure relief devices, valves, manway covers, devices used for loading and unloading, interior heating coils, and vents.

To address the community of tank car shippers: PHMSA's and FRA's position, as reflected in the proposed definition, is that the removal of service equipment from the tank car and replacement or re-installation of the service equipment is a qualification event and triggers the need for a leakage pressure test (*see* § 180.509(j)) to verify the tank car is leak tight at the connection. These functions must be conducted by a tank car facility, as defined in part 179, because the service equipment requires a leakage pressure test to ensure the connection to the tank car is qualified for its intended service. A leakage pressure test is a qualification event and must be performed by a tank car facility. Any action that triggers a qualification event requires a tank car facility to perform the qualification prior to placing the tank car into transportation. However, to be clear, a facility that only operates service equipment for loading and unloading purposes is not a tank car facility.

To address the community of tank car component manufacturers, repair facilities and manufacturers: PHMSA's and FRA's position, as reflected in the proposed definition, is that a facility that only manufactures, maintains, or repairs service equipment is not a tank car facility. The facility that qualifies the completed tank car for service after installation of the service equipment is the tank car facility. The facility that qualifies the tank car for service is responsible for ensuring the compliance of the packaging with the requirements of part 179, even those functions that they did not directly perform (*e.g.,* manufacturing a valve). The tank car facility's QAP must encompass all work done on the tank car and its components prior to qualification of the tank car.

Tank car facilities that meet the proposed revised definition of tank car facility in § 179.2 must have the knowledge and skill to ensure appropriate conformance with the requirements of parts 179 and 180. As qualification is the final step in the tank car manufacturing or maintenance process, only requiring the facilities that qualify tank cars (*i.e.,* facilities that have the ''last touch'') to have a QAP reduces this requirement to a small subset of the total number of facilities that perform work related to tank cars, while still maintaining the high level of safety under the HMR. PHMSA and FRA emphasize the scope of the definition of ''qualification'' remains unchanged. Therefore, as proposed, tank car shippers and component suppliers are not subject to the administrative burdens associated with the creation and maintenance of QAPs, unless they perform qualification activities (*e.g.,* removal and replacement of a valve or other service equipment on a tank car). PHMSA and FRA emphasize that all facilities that perform a function subject to the HMR are responsible for performing it correctly and in conformance with all applicable requirements, regardless of whether they meet the definition of a ''tank car facility.''

Tank car facilities are responsible for ensuring all material installed onto the tank car meets the requirements of the specification and the regulations at the time the tank car is qualified for service. PHMSA and FRA understand that long-standing policy in the tank car industry had required tank car component manufacturers to maintain AAR-approved QAPs. This policy was confirmed in previously issued (and since revoked) PHMSA Letters of Interpretation Reference Nos. 15–0124 and 18–0029. While these letters are no longer valid, and have not been valid since 2019, at the time they were written they aligned with generally accepted industry practice and addressed a safety issue created by production of valves and other tank car service equipment by unapproved sub-contractors without adequate oversight. As proposed in this NPRM, the facility that qualifies the tank car for service is responsible for ensuring the tank car and all equipment necessary for the tank car's operation meets the applicable requirements of the HMR and any other applicable standards.

5. Tank Car Facility and Design Certifying Engineer Registration

As previously discussed, PHMSA and FRA propose to require that tank car facilities and tank car DCEs register with PHMSA prior to conducting regulated activities. PHMSA and FRA expect that a registration program for both tank car facilities and tank car DCEs is a more efficient alternative for the tank car industry while providing at least an equivalent level of safety. Direct monitoring of registered tank car facilities and tank car DCEs through site visits and audits will maintain the

[13] *https://www.regulations.gov/document/PHMSA-2022-0130-0001.*

[14] See Letter of Interpretation Reference No. 19–0117: *https://www.phmsa.dot.gov/regulations/title49/interp/19-0117.*

existing safety standards established in the HMR.

Therefore, PHMSA, in conjunction with FRA, proposes to create subpart J in part 107 for tank car facility and tank car DCE registration. The creation of a tank car facility registration program was agreed to in the RSAC process; however, PHMSA proposes to implement the tank car facility registration program in a format different than what appears in the RSAC consensus recommendations. In the RSAC proposal, the tank car facility registration was added to the existing cargo tank facility registration subpart (*i.e.,* part 107, subpart F). After reviewing the RSAC proposal, PHMSA and FRA have determined that it would be confusing to both the cargo tank and tank car communities to attempt to insert tank car-specific facility and DCE registration language into part 107, subpart F. PHMSA proposes to place the tank car facility and tank car DCE registration requirements in a new subpart to reduce confusion and highlight the tank car-specific nature of these programs. However, some of the proposed language is similar to the part 107, subpart F requirements for cargo tanks and cargo tank motor vehicles.

For tank car facilities, PHMSA proposes to require that each facility, *i.e.* each separate physical location with a unique street address, submit a separate registration. This will allow PHMSA and FRA to oversee each facility that qualifies tank cars more effectively by establishing the physical addresses and activities of each facility. Each registration statement must be signed by a principal, officer, partner, or employee of the facility responsible for compliance with the applicable requirements of the HMR, certifying knowledge of those requirements. In their registration statement, each tank car facility must list the qualification functions the tank car facility will perform and identify the types of DOT specification or special permit tank cars they intend to qualify.

For DCEs, PHMSA proposes to require each person, as defined in § 171.8, who conducts review of a tank car or service equipment design must register with PHMSA. Each engineer employed to conduct the design reviews must be individually named in the registration and will receive a unique, separate identifier associated with the company's DCE registration. If an engineer is employed as a DCE to conduct design reviews of tank cars or service equipment and begins operating as a DCE for another company, or as self-employed, then the engineer must inform PHMSA and will then receive a new registration number.

PHMSA also proposes the ability to modify, suspend, or terminate both tank car facility and tank car DCE registrations for cause in new § 107.911. Further, procedures for a tank car facility or DCE to follow to request reconsideration and appeal a decision to modify, suspend, or terminate a registration are proposed in new §§ 107.913 and 107.915, respectively. Modification, suspension, and termination determinations for tank car facility and DCE registrations will be made by the Associate Administrator for Safety, FRA. Similarly, requests for reconsideration must also be submitted to the Associate Administrator for Safety, FRA, and appeal of the reconsideration decision to the FRA Administrator.

6. AAR Specifications for Tank Cars Incorporation by Reference

The AAR has developed a comprehensive industry standard for the construction and maintenance of tank cars, the AAR *Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification,* M–1002 (AAR Specifications for Tank Cars). Currently, § 171.7 incorporates by reference the December 2000 edition of the AAR Specifications for Tank Cars throughout parts 173 (Shippers-General Requirements for Shipments and Packagings), 179 (Specifications for Tank Cars), and 180 (Continuing Qualification and Maintenance of Packagings). In many sections, especially in part 179, the HMR only references a specific section, such as an appendix, of the document. To clarify the IBR structure of M–1002, the RSAC agreed to separately list the individual chapters and appendices of the of AAR Specifications for Tank Cars in the HMR's consolidated IBR section (§ 171.7). This will clearly denote to the reader the relevant chapter or appendix of the document that applies in a particular section of the HMR. This change will also provide PHMSA and FRA greater flexibility when incorporating by reference future editions of the standard. For example, if PHMSA and FRA do not concur on the content of a particular chapter or appendix, it would not prevent other chapters or appendices from being incorporated by reference.

The RSAC also agreed to update the standard from the December 2000 edition to the November 2014 edition. The 2014 edition of the AAR Specifications for Tank Cars also addresses NTSB Safety Recommendation R–12–007,[15] issued on March 2, 2012. R–12–007 recommends that PHMSA adopt AAR's revised design standards for center sill and draft sill attachments. AAR redesigned center and draft sill attachments in response to NTSB Safety Recommendation R–12–009.[16] Chapter 6 of the 2014 edition of the AAR Specifications for Tank Cars, which is proposed for adoption into § 179.10, includes the new sill attachment standards for newly built tank cars. Therefore, the proposed IBR update helps PHMSA address NTSB Safety Recommendation R–12–007.

This NPRM proposes to update the IBR of the AAR Specifications for Tank Cars to the 2014 edition and to incorporate by reference separately each relevant chapter and appendix, as agreed to in the RSAC process. Due to the proposed removal of AAR's sole process for review and approval of tank car designs, certain appendices and sections are no longer necessary to IBR. Several appendices and sections that require designs and QAPs to be sent to AAR for approval would no longer be relevant (*see* ''Section II.B.2. Tank Car Design Approval). Therefore, PHMSA does not propose to IBR Appendix B, Appendix L, and Appendix U of the AAR Specifications for Tank Cars into the HMR.

Additionally, PHMSA proposes to update the edition of the AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication and Construction of Freight Cars, Chapter 5 to the 2011 edition from the 1988 edition, as agreed in RSAC.

[15] See NTSB Safety Recommendation R–12–007: *https://www.ntsb.gov/safety/safety-recs/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=R-12-007*.

[16] See NTSB Safety Recommendation R–12–009: *https://www.ntsb.gov/safety/safety-recs/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=R-12-009*.

PHMSA proposes to IBR the 2014 edition of the AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars) Chapter 2, section 2.2.1.2 into § 179.102–3. This proposed amendment creates an HMR requirement for shell and head material Charpy impact testing at time of manufacture for pressure tank cars that transport poisonous-by-inhalation material. Because this requirement has been in place through AAR interchange standards since 2005, PHMSA expects there will be no additional burden placed on tank car manufacturers. This proposed IBR also addresses NTSB Safety Recommendation R–19–001, which requests that PHMSA promulgate a final standard for pressure tank cars used to transport poison inhalation hazard/toxic inhalation hazard materials that includes enhanced fracture toughness requirements for tank heads and shells.

PHMSA proposes to incorporate by reference the 2014 edition of the AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars) Chapter 3, into §§ 173.241, 173.242, and 173.247. Chapter 3 contains the requirements for manufacturing AAR specification tank cars. Sections 173.241, 173.242, and 173.247 are the packaging sections that authorize the use of AAR specification tank cars. Currently, these sections reference specific AAR specification tank cars, but provide no information as to how these cars are constructed, or what version of the AAR Specifications for Tank Cars they must meet. Incorporating by reference only Chapter 3 into these sections ensures that AAR specification tank cars are manufactured to a standard that PHMSA and FRA have reviewed and determined is acceptable for hazardous materials transportation. If the specifications of the AAR tank cars referenced in §§ 173.241, 173.242, and 173.247 are ever changed in a future edition of the AAR Specifications for Tank Cars, PHMSA and FRA will need to review the revised specifications before authorizing the tank cars for hazardous material service. Incorporation by reference of a specific edition of the AAR Specifications for Tank Cars in §§ 173.241, 173.242, and 173.247 ensures PHMSA will be able to review any future changes to the construction specification prior to authorizing the new specification for hazardous materials transportation.

Finally, PHMSA proposes to correct an error in the HMR and RSAC's proposed IBR text. Currently, the HMR incorporates by reference the AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Chapter 6, November 2014 in § 179.400–6. This citation is incorrect; the correct IBR document for design loads of outer jackets is AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication and Construction of Freight Cars, Chapter 6. Therefore, PHMSA proposes to IBR Section C—II, Chapter 6 into § 179.400–6.

7. Tank Car Linings and Coatings

The HMR prescribes requirements for the inspection of tank car linings in § 180.509(i). On May 22, 2019, the Railway Supply Institute (RSI) requested a Letter of Interpretation on the applicability of the inspection requirements of § 180.509(i). Specifically, RSI asked whether linings and coatings solely used to protect product purity (*i.e.,* the lining or coating plays no role in protecting the tank from corrosion or reactivity) are subject to the inspection requirements of § 180.509(i).

In Letter of Interpretation Reference No. 19–0117,[17] PHMSA and FRA provided clarification on inspection requirements for linings and coatings. Specifically, the requirements of § 180.509(i) apply only to internal tank car linings and coatings that are applied to protect the tank from a material that is corrosive or reactive to the tank. As noted in the preamble of the final rule HM–216B, [18] PHMSA and FRA are aware of incidents where a material was loaded into a tank car with a defective or incompatible lining which caused a reaction with the tank car. In these instances, the tank lining owners expected the lining was there to protect product purity when in fact it served to protect the tank. It is the responsibility of the tank lining owner to determine whether the internal lining or coating is solely for product purity purposes.

To address confusion on the applicability of tank car lining and coating inspections, PHMSA proposes an editorial revision of the requirements of § 180.509(i)(1), adding the phrase ''used to transport hazardous materials corrosive or reactive to the tank'' to the second sentence of (i)(1). The proposed revision clearly indicates that tank car linings and coatings are only subject to the inspection requirements of part 180 if they are used to protect the tank from material corrosive or reactive to the tank. PHMSA expects that this clarification will improve compliance with this inspection requirement and therefore improve safety. PHMSA requests comment on this proposal.

8. Editorial Revisions to §§ 180.501 and 180.513

Section 180.501 contains the general requirements for the qualification and maintenance of tank cars. In this NPRM, PHMSA proposes to replace the phrase ''owner's qualification program'' with ''owner's qualification and maintenance program'' to maintain alignment with the scope of part 180, subpart F, and the existing references to ''qualification and maintenance program'' in §§ 179.7 and 180.513.

Section 180.513 provides the requirements to repair, alter, convert, and modify tank cars. PHMSA, in conjunction with FRA, adopted this section into the HMR in HM–216B. Section 180.513(b) outlines responsibilities of a tank car facility. The last sentence in § 180.513(b) contains wording that does not communicate the requirement accurately. Specifically, at the end of paragraph (b), it currently states, ''a tank car facility must incorporate the owner's Quality Assurance Program into their own Quality Assurance Program.'' The sentence contains an incorrect reference to an equipment owner's QAP. Tank car owners are not subject to the part 179 QAP requirements unless they also operate a tank car facility. The last sentence should make a general reference to a tank car owner's qualification and maintenance program and not a QAP that is required of tank car facilities. The requirement should read, ''a tank car facility must incorporate the owner's qualification and maintenance program into their own Quality Assurance Program.'' Therefore, PHMSA proposes to replace the first appearance of the phrase ''Quality Assurance Program'' in the last sentence of § 180.513(b) with the phrase ''qualification and maintenance program.''

C. Cargo Tank Regulatory Amendments

PHMSA, in conjunction with the Federal Motor Carrier Safety Administration (FMCSA), developed proposed amendments specific to enhancing safe highway transportation of hazardous materials. A portion of the proposed items were initially identified during two technical information sessions sponsored by National Tank Truck Carriers, Inc. (NTTC) and Truck Trailer Manufacturer's Association

[17] See Letter of Interpretation Reference No. 19–0117: *https://www.phmsa.dot.gov/regulations/title49/interp/19-0117.*

[18] 77 FR 37962 (Jun. 25, 2012).

(TTMA) in 2005. During these meetings, PHMSA and FMCSA began developing a list of issues, concerns, and requests for clarifications to be considered in a future rulemaking. Moreover, PHMSA and FMCSA have identified numerous advancements in industry practice, as well as potential safety incidents, over the course of the past 17 years. This rulemaking aims to address the safety concerns raised by industry stakeholders.

Additionally, PHMSA and FMCSA continue to review enforcement actions, letters of interpretation, and information received from cargo tank manufacturers and testing facilities, in efforts to identify appropriate revisions to the HMR.

D. Cargo Tank Marking for Petroleum Distillate Fuels

In an advance notice of proposed rulemaking (ANPRM) HM–213E,[19] PHMSA addressed United Nations identification number (UN ID number) marking of cargo tank motor vehicles containing petroleum distillate fuels in response to a *Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2016 (PIPES Act of 2016)* Congressional mandate and two petitions for rulemaking (P–1667 [20] and P–1668 [21]). The PIPES Act of 2016 mandate stated that ''[n]ot later than 90 days after the date of enactment of this Act, the Secretary of Transportation shall issue an [ANPRM] to take public comment on the petition for rulemaking dated October 28, 2015, titled 'Corrections to Title 49 CFR 172.336 Identification numbers; special provisions' (P–1667).''

The central issue addressed in the HM–213E ANPRM was whether a cargo tank motor vehicle transporting different types of petroleum distillate fuels (*e.g.,* gasoline, diesel fuel, kerosene, and fuel oil) over the course of multiple trips should be permitted to display the UN ID number of the fuel with the lowest flash point, even when that fuel is not being transported (*e.g.,* display ''1203''—the UN ID number for gasoline—when the cargo tank contains only diesel fuel).

As detailed in table 1, PHMSA received 14 sets of comments to the HM–213E ANPRM.

TABLE 1—HM–213E COMMENTERS AND ASSOCIATED COMMENT DOCKET NUMBERS

Commenter	Docket ID number
American Trucking Association (ATA)	PHMSA–2016–0079–0012
Anonymous	PHMSA–2016–0079–0003
Commercial Vehicle Safety Alliance (CVSA)	PHMSA–2016–0079–0009
Dangerous Goods Advisory Council (DGAC)	PHMSA–2016–0079–0010
International Association of Fire Chiefs (IAFC)	PHMSA–2016–0079–0008
International Association of Fire Fighters (IAFF)	PHMSA–2016–0079–0011
Josh Torrez	PHMSA–2016–0079–0002
Kansas Highway Patrol	PHMSA–2016–0079–0005
NTTC	PHMSA–2016–0079–0006
Patriot Tank Lines, Inc.	PHMSA–2016–0079–0004
Petroleum Marketers Association of America (PMAA)	PHMSA–2016–0079–0013; PHMSA-2016-0079-0014
Public Utilities Commission of Ohio	PHMSA–2016–0079–0007
Transportation Trades Department, American Federation of Labor and Congress of Industrial Organizations (AFL–CIO).	PHMSA–2016–0079–0015

ATA, CVSA, DGAC, Kansas Highway Patrol, Patriot Tank Lines, Inc., NTTC, and PMAA support allowing cargo tank motor vehicles that deliver multiple types of petroleum distillate fuels to display the UN ID number of the fuel with the lowest flash point, even when that fuel is not being transported. These organizations note that materials with a lower flash point generally have a higher flammability hazard, and therefore, conclude that marking the UN ID number of a lower flash point material would not increase risks in transportation. Additionally, these commenters note that the Emergency Response Guidebook (ERG) emergency response procedures are nearly identical for UN1203 (gasoline) and UN1202/NA1993 (diesel fuel, fuel oil), and marking of a cargo tank with ''1203'' even when it only contains diesel fuel has been a safe industry practice for decades. PHMSA also notes that for other petroleum distillate fuels—such as UN1223 (kerosene)—the ERG also directs the reader to the same response procedures for UN1203 and UN1202/NA1993. Lastly, the commenters note that switching the UN ID number before every trip to reflect the material transported in the cargo tank at the time would increase the time per trip and costs for fuel distributors.

The IAFC, IAFF, Public Utilities Commission of Ohio, and Transportation Trades Department of the AFL–CIO do not support allowing cargo tank motor vehicles that deliver multiple types of petroleum distillate fuels to display the UN ID number of the fuel with the lowest flash point, even when that fuel is not being transported. These commenters state that emergency responders would treat an incident—including clean-up and spill mitigation—involving diesel fuel differently from gasoline, and the use of the gasoline ''1203'' marking in place of the diesel fuel ''1202'' or ''1993'' increases confusion and decreases response effectiveness. Specifically, first responders may use the presence (or lack) of a fire and communicated hazard to determine the potential dangers of the fuel in the immediate aftermath of an accident. Because ''1203'' signifies a material with a lower flashpoint than ''1202'' or ''1993'' is present on the vehicle, the absence of a fire signifies that there may not be a fire hazard. However, when the higher flashpoint material is present, but only the lower flash point material is communicated on the vehicle, the absence of a fire may create a false sense of security for emergency responders, as they would be unaware that the fuel in the tank or spilled on the ground had not yet reached the higher flash temperature for diesel fuel.

PHMSA conducted a thorough review of the regulatory history related to the UN ID number marking requirements for petroleum distillate fuels in cargo tanks

[19] 81 FR 83190 (Nov. 21, 2016).

[20] See petition for rulemaking P–1667: *https://www.regulations.gov/document?D=PHMSA-2015-0219-0001.*

[21] See petition for rulemaking P–1668: *https://www.regulations.gov/document?D=PHMSA-2015-0251-0001.*

and concludes the origin of the confusion on this issue dates to final rule HM–118.[22] In HM–118, RSPA added new hazard marking sections including § 172.332 for requirements on the display of UN ID numbers, § 172.334 for the prohibited display of UN ID numbers, and § 172.336 for special provisions and exceptions of UN ID numbers. In § 172.336, RSPA added two exceptions for the marking of UN ID numbers for a cargo tank transporting liquid distillate fuels, which read as follows:

(c) Identification numbers are not required —

* * * * *

(4) For different liquid distillate fuels, including gasoline, in a compartmented cargo tank or tank car, if the identification number is displayed for the distillate fuel having the lowest flash point.

(5) For each of the different liquid distillate fuels, including gasoline, transported in a cargo tank, if the identification number displayed is for the liquid distillate fuel having the lowest flash point.

* * * * *

In the final rule preamble,[23] RSPA described the intent of the exception in § 172.336(c)(5) as:

Paragraph (c)(5) provides for display of the identification number of the liquid distillate fuel having the lowest flash point of any liquid distillate fuel carried in a cargo tank. This provision will eliminate the need for continuous changes in identification numbers in many operations where gasoline and fuel oil are transported in the same cargo tank on different trips during the same day.

While RSPA stated that the intent of this exception would address moving gasoline and other petroleum distillate fuels in the same cargo tank on different trips on the same day, this was not reflected in the regulatory text. Although the time frame for use of this exception was not explicitly written in the regulatory text, the preamble language makes it is clear that the exception in § 172.336(c)(5) was not limited to multi-compartmented tanks carrying multiple petroleum distillate fuels at the same time. Specifically, if § 172.336(c)(5) only applied to compartmented cargo tanks that transported multiple liquid distillate fuels at the same time, § 172.336(c)(4) would be duplicative. Therefore, PHMSA concludes that RSPA intended § 172.336(c)(5) to authorize a cargo tank to display the UN ID number of the petroleum distillate fuel with the lowest flash point transported in that cargo tank on different trips within the same day, and not based on each individual trip.

Furthermore, RSPA's intent of this regulatory exception was reiterated in 1996 and 2000, with Letter of Interpretation Reference Nos. 96–0079 and 00–0208. In these interpretation letters, RSPA clearly stated that the exception in § 172.336(c)(5) allowed cargo tanks that previously transported gasoline (UN1203) and were subsequently transporting only diesel fuel (NA1993/UN1202) to be marked with ''1203.''

As discussed in the HM–213E ANPRM, § 172.336(c)(5) was updated in 1987 and 2008 to address specific concerns related to increased ethanol content in certain fuels that required different emergency response procedures, but the basic structure of the paragraph was not changed. Further, in 2013, PHMSA published final rule HM–219,[24] which amended the HMR in response to various petitions for rulemaking. In HM–219, PHMSA removed the reference to ''gasohol'' in § 172.336, as the Hazardous Materials Table (HMT) entry for this material was removed in 2008. In addition, PHMSA replaced §§ 172.336(c)(1)–(6) with a table to ''more clearly indicate hazard communication requirements.'' In this new table, PHMSA added paragraphs (c)(1)–(3) and (c)(6) as individual entries but combined the language in paragraphs (c)(4) and (5) into a single entry. The impact of combining the provisions of paragraphs (c)(4) and (5) was that the historical context for the original meaning of paragraph (c)(5) was lost. As this revision in HM–219 was an attempt at clarification, it was not PHMSA's intent to change the exceptions substantively for marking of UN ID numbers on cargo tanks.

On June 26, 2015, PHMSA published an additional Letter of Interpretation Reference No. 14–0178.[25] In the incoming letter, the requester asserted that § 172.336(c) stated clearly that if a cargo tank is transporting multiple liquid petroleum distillate fuels, it may be marked with the UN ID number of the fuel with the lowest flash point. The requester asked if a cargo tank is transporting only diesel fuel (NA1993), is it authorized to continue displaying the UN ID number for gasoline (UN1203) even though gasoline was no longer present. As the regulations no longer clearly indicated that this continued to be an acceptable practice, in the response, PHMSA stated that a cargo tank transporting only diesel fuel could not be marked with the UN ID number for gasoline because the gasoline was no longer present.

As previously discussed, in HM–219, it was not PHMSA's intent to remove the longstanding exception that allowed a cargo tank transporting more than one petroleum distillate fuel in different trips to display the UN ID number for the petroleum distillate fuel with the lowest flash point. Although, PHMSA recognizes that there may be safety concerns associated with this practice, as noted by commenters to the HM–213E ANPRM, PHMSA has not received specific information describing instances in which this marking exception has increased risks in transportation. Therefore, PHMSA proposes to revise the § 172.336(c) table, to authorize display of the UN ID number of the petroleum distillate fuel with the lowest flash point transported in a cargo tank in different trips on the previous or current business day. This proposal aligns with the original intent of § 172.336(c)(5), and addresses the operational concerns identified by commenters to the HM–213E ANPRM. In addition, this proposal generally aligns with the requirements of DOT–SP 21104,[26] which was issued on November 11, 2020, and further modified on February 26, 2021. DOT–SP 21104 currently allows for the transportation of gasoline, diesel fuel, kerosene, and fuel oil in a cargo tank motor vehicle marked with the UN ID number ''1203'' as long as gasoline had been transported in the cargo tank during the previous or current business day. PHMSA is unaware of any safety issues associated with DOT–SP 21104.

Although ''different trips on the same day'' was not defined in HM–118, PHMSA proposes that this provision apply when the petroleum distillate fuel with the lowest flash point is transported on the cargo tank motor vehicle during the previous or current business day. As previously mentioned, this proposal aligns with the time frame currently authorized in accordance with DOT–SP 21104. As proposed, PHMSA considers a ''business day'' to mean a day that the operator of the cargo tank motor vehicle is open and operating in commerce. Therefore, if a cargo tank carrying gasoline is unloaded and subsequently filled with a fuel with a higher flash point, ''1203'' may only continue to be displayed on the cargo tank for that day and the following day that the operator is open and operating.

[22] 45 FR 74640 (Nov. 10, 1980).

[23] 45 FR 74647 (Nov. 10, 1980).

[24] 78 FR 14702 (Mar. 7, 2013).

[25] See Letter of Interpretation Reference No. 14–0178: *https://www.phmsa.dot.gov/regulations/title49/interp/14-0178.*

[26] See DOT–SP 21104: *https://www.phmsa.dot.gov/hazmat/documents/offer/SP21104.pdf/2021014464/SP21104.*

To ensure compliance with this requirement, PHMSA anticipates the use of shipping paper records (*see* § 177.817(f)) to verify which petroleum distillates were transported in the cargo tank during the previous or current business day. PHMSA requests comment on the functionality of this proposed exception for the previous or current business day of petroleum distillate fuels.

In this new entry in the § 172.336(c) table, PHMSA also proposes to include specific requirements when transporting gasoline and alcohol fuel blends consisting of more than 10% ethanol. Specifically, due to different emergency response procedures for liquid petroleum distillate fuels containing more than 10% ethanol and as currently required in the fifth row in the § 172.336(c) table, PHMSA proposes that if the cargo tank contains gasoline and alcohol fuel blends consisting of more than 10% ethanol, the UN ID number ''3475'' or ''1987,'' as appropriate, must be displayed. Additionally, the UN ID numbers ''3475'' or ''1987'' may only be displayed if a gasoline and alcohol fuel blend consisting of more than 10% ethanol is present in the cargo tank during transportation. This means that ''3475'' or ''1987'' may not be displayed even if it is the lowest flash point petroleum distillate fuel and the cargo tank transported the fuel in a different trip on the previous or current business day. Therefore, if the lowest flash point liquid petroleum distillate fuel transported in the cargo tank in different trips on the previous or current business day is a gasoline and alcohol fuel blend consisting of more than 10% ethanol—and this material is not present in the cargo tank for that trip—the carrier must display the UN ID number of either the next lowest flash point liquid petroleum distillate fuel carried in a different trip on the previous or current business day or the liquid petroleum distillate fuel currently being transported in the cargo tank.

Additionally, as an accompanying amendment, PHMSA proposes to revise the fifth row of the § 172.336 table to specify that the exception provided in that row only apply to compartmented cargo tanks or compartmented tank cars. This proposed change distinguishes a compartmented cargo tank (or tank car) transporting more than one petroleum distillate fuel in the same trip (fifth row) from a cargo tank transporting more than one petroleum distillate fuel in different trips on the current or previous business day (sixth row). This clearly distinguishes the marking exception that applies to a compartmented tank that transport multiple fuels of differing flashpoints at one time, and the exception that applies to a cargo tank (single or multi-compartment) that is used to transport fuels of differing flashing points during the course of business on current or previous business day.

PHMSA requests comments related to specific, articulable safety or cost concerns associated with this proposed amendment. PHMSA notes that for NA1993, UN1202, UN1203, UN1223, and other petroleum distillate fuels, the ERG directs the reader to the same guide page for initial emergency response measures, and PHMSA further requests information from emergency responders describing how emergency response would differ for an accident involving a cargo tank motor vehicle marked ''1993,'' ''1202,'' ''1203,'' ''1223,'' or another UN ID number associated with a petroleum distillate fuel. Finally, PHMSA requests information on any known incidents where emergency response was impacted negatively due to a cargo tank motor vehicle displaying ''1203'' when it was transporting a petroleum distillate fuel with a higher flash point.

E. P–1712

In petition for rulemaking P–1712,[27] the Chlorine Institute (CI) requested PHMSA delete § 173.315(i)(13) from the HMR. This change would remove the requirement to install Crosby pressure relief devices (PRDs) on chlorine cargo tanks, thus providing flexibility by authorizing the use of alternative PRDs meeting the requirements of § 173.315(i). The petition for rulemaking also outlined the current use of the Midland PRD on chlorine cargo tanks under the authority of DOT–SPs 9694 and SP–10457. CI noted that the Midland PRD meets the requirements in § 173.315(i) and is incorporated in CI's Pamphlet 49, ''*Recommendation Practices for Handling Chlorine Bulk Highway Transporters.*'' Furthermore, in their petition for rulemaking, CI notes that since the requirement was established in § 173.315(i), Midland Manufacturing entered the chlorine PRD market. This expanded market was reflected in CI Pamphlet 49, but it was not reciprocated in the HMR, except by special permit.

After reviewing this petition for rulemaking, PHMSA proposes to allow use of the Midland PRD under § 173.315(i) but does not propose to delete the specific limitations on the type of PRD authorized. PHMSA will continue to work with CI to develop generally applicable specifications for PRDs used on cargo tanks transporting inhalation hazards. Therefore, for the purpose of this rulemaking, PHMSA only considered the inclusion of the PRD specifications that are already outlined in CI Pamphlet 49 and we do not propose the deletion of § 173.315(i)(13) in its entirety. Instead, PHMSA proposes to revise § 173.315(i) to specify that the PRD on a chlorine cargo tank must conform to one of the drawings in CI Pamphlet 49, which would allow for the use of the Midland PRD in addition to the Crosby PRD. PHMSA expects that this will provide for additional regulatory flexibility in selection of a PRD while maintaining the current level of safety.

F. P–1724

In petition for rulemaking P–1724,[28] the Greenbrier Companies requested PHMSA revise § 179.100–12 to allow for an alternative means of connecting the manway protection housing to the tank car. Currently, the HMR require the protective housing that shields the valves and fittings on top of pressure cars to be bolted to the manway cover. The petition for rulemaking asks that the connection be alternatively made between the protective housing and the manway reinforcing pad. This alternative allows the protective housing to be bolted to a flange connected to the manway reinforcing pad with not less than twenty ¾-inch studs. After reviewing the petition for rulemaking, PHMSA agrees there is merit in making this proposed revision as it will provide regulatory flexibility without reducing the safety of attaching the manway protection housing to a tank car. This alternative method is currently only authorized in DOT–SPs 14832 and 20607. Therefore, PHMSA proposes to revise § 179.100–12 to permit the use of an alternative means of connecting the manway protection housing to the tank car.

G. P–1735

In petition for rulemaking P–1735,[29] TTMA requested PHMSA amend §§ 173.33(d)(3) and 180.405(h)(3) to remove requirements referring to the venting capacity of the original specification for the MC cargo tank motor vehicles with upgraded pressure relief valves.

After reviewing this petition for rulemaking, PHMSA agrees with the

[27] See petition for rulemaking P–1712: *https://www.regulations.gov/docket?D=PHMSA-2018-0022.*

[28] See petition for rulemaking P–1724: *https://www.regulations.gov/docket?D=PHMSA-2018-0111.*

[29] See petition for rulemaking P–1735: *https://www.regulations.gov/docket?D=PHMSA-2019-0132.*

position of the petitioner regarding the error made in the preamble in final rule HM–218H,[30] but does not agree that a regulatory change to §§ 173.33(d)(3) and 180.405(h)(3) is necessary. In final rule HM–218H, PHMSA responded to a number of appeals to the final rule. In the preamble, PHMSA incorrectly stated that the PRD set pressure must be to the original specification when upgrading or modifying the PRDs on a MC 300 series cargo tank motor vehicle. PHMSA has previously and subsequently addressed this issue via letters of interpretation and clarified that the upgraded or modified PRD on a MC 300 series cargo tank motor vehicle must meet all requirements of § 178.345–10, including set pressure (*see* Letters of Interpretation Reference Nos. 16–0183 and 18–0118). As such, while PHMSA agrees with the position of the petitioner, PHMSA finds that no amendments are necessary as the petition for rulemaking was predicated on the incorrect language included in the preamble to HM–218H.

III. Overview

A. Rail

PHMSA, in conjunction with FRA, proposes numerous revisions to the HMR related to transportation of hazardous materials by rail. These proposed revisions will provide greater clarity for hazardous materials rail carriage requirements and remove regulatory barriers to efficient operation without diminishing safety. PHMSA proposes the following amendments:

Related to the proposed amendments offered by RSAC (*see* ''Section II.A. RSAC'' for additional discussion), PHMSA proposes:

- In § 171.7, update the IBR of the AAR Manual of Standards and Recommended Practices, Section C—Part III, Specifications for Tank Cars, Specification M–1002, (AAR Specifications for Tank Cars), to the November 2014 edition from the 2000 edition;
- In § 171.7, separate the IBR of the AAR Manual of Standards and Recommended Practices, Section C—Part III, Specifications for Tank Cars, Specification M–1002 into its component chapters and appendices, except for Appendix B, Appendix L, and Appendix U, as discussed in ''Section II.B.6. AAR Specifications for Tank Cars Incorporation by Reference'';
- In § 171.7, update the edition of the AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication and Construction of Freight Cars, Chapter 5 to the 2011 edition from the 1988 edition;
- In § 172.101, editorially revise the description of Column 9A ''Passenger aircraft/rail'' to clarify the meaning for rail transportation;
- In § 172.820, add an exception for route planning for circumstances where no practicable alternative route exists;
- In § 173.31(d), add requirements for tank car closure instructions;
- In § 173.31(g), clarify securement requirements for tank car loading and unloading;
- In § 174.9, revise the safety and security inspection requirements;
- In § 174.14, add exceptions to the requirement for tank car movements to be expedited for certain unavoidable delays;
- Remove and reserve § 174.16, because the requirements for removal and disposition of certain explosives are obsolete;
- Remove and reserve § 174.20 because the reporting to the Bureau of Explosives for local and carrier restrictions is unnecessary;
- In § 174.24, clarify requirements for providing shipping papers to an authorized official;
- In § 174.50, revise the OTMA requirements to align with current FRA policy;
- In a new § 174.58, clarify the meaning of ''extent practicable'' as used in the § 171.8 definition of *residue;*
- In § 174.59, revise requirements for replacing lost placards;
- In § 174.63, make editorial revisions and expand the types of packages and materials eligible for COFC and TOFC service without an approval from FRA;
- In § 174.67, revise the transloading requirements to create a performance-based system, rather than the current prescriptive requirements;
- In Appendix B to part 179, revise the torch and pool fire testing provisions to improve industry understanding of the requirements; and
- In § 180.503, revise the definitions of *tank car owner, coating/lining owner,* and *service equipment owner* to more accurately reflect the complex business arrangements commonly in use.

Related to AAR delegated authority amendments (*see* ''Section II.B. AAR Authority to Approve the Design of Tank Cars and Approve Quality Assurance Programs'' for additional discussion), PHMSA proposes:

- In a new subpart J in part 107, add tank car facility and tank car DCE registration, with the ability to modify, suspend, or terminate the registration for cause;
- In §§ 107.1, 107.105, and 107.701, revise procedural requirements to accommodate the proposed new subpart J;
- In § 171.7, incorporate by reference AAR Manual of Standards and Recommended Practices, Section C—Part III, Specifications for Tank Cars, Specification M–1002 Chapter 3 into §§ 173.241, 173.242, and 173.247;
- In § 171.8, revise the definition of *Design Certifying Engineer* to create a parallel definition for tank car DCEs;
- In § 179.2, revise the definitions for *approved* and *tank car facility* and add definitions for *component* and *tank car;*
- In § 179.2, add introductory text to indicate that terms defined in § 180.503 also apply to part 179 to address confusion with defined terms in these related regulatory parts;
- In § 179.3, remove the requirement for AAR TCC approval of tank car and service equipment designs, and replace it with approval by a DCE;
- In § 179.4, revise the process for designing and seeking approval of a design of a new tank car specification;
- In § 179.5, remove the tank car certification of construction requirement and replace it with a Design Approval Certificate (DAC). PHMSA also proposes to describe the information that must be included in a DAC for both tank cars and service equipment;
- In § 179.6, indicate that AAR approval is no longer required for repairs;
- In § 179.7, remove the requirement for AAR approval of the QAP and make revisions intended to clarify the intent of the applicability of the QAP requirement;
- In § 179.11, add a reference to AAR Specifications for Tank Cars in Appendix W, except section 1.2, for welding requirements;
- In § 179.24, remove reference to AAR Form 4–2 in conformance with the replacement of the certificate of construction with the DAC;
- Throughout the HMR, including §§ 172.102, 173.31, and 173.314, and parts 179–180, remove all references to approval by AAR and replace with a reference to an approval by a DCE;
- In part 179, indicate that compliance with paragraph 1.2 of Appendix W of the AAR Specifications for Tank Cars is not required;
- In §§ 179.100–9, 179.200–10, and 179.220–10, remove the sentence requiring that welding procedures, welders, and fabricators be approved;
- In §§ 179.220–15 and 179.400–13, remove the requirement for design approval for tank cushioning systems;
- In § 179.400–6, correct an editorial reference to the incorrect IBR material;
- In §§ 179.500–17 and 179.500–18, revise recordkeeping requirements to

[30] 83 FR 28162 (Jun. 18, 2018).

remove obsolete references to the Bureau of Explosives;

• In § 180.501, replace ''owner's qualification program'' with ''owner's qualification and maintenance program'' to maintain alignment with the scope of part 180, subpart F, and the other references to ''qualification and maintenance program'' in §§ 179.7 and 180.513;

• In § 180.503, revise the definitions for *maintenance, modification, qualification,* and *service equipment;*

• In § 180.509(i), clarify the inspection requirements for linings and coatings;

• In § 180.513, revise the responsibilities of tank car owners; and

• In § 180.517, revise the section to reflect the removal of the certificate of construction and its replacement with the DAC.

Related to PHMSA initiated editorial clarification, PHMSA proposes to:

• In § 174.81, revise explosive segregation requirements to align with current highway and vessel requirements.

Related to NTSB Safety Recommendation R–19–001, PHMSA proposes to:

• In § 171.7, incorporate by reference AAR Specifications for Tank Cars Chapter 2, section 2.2.1.2 into § 179.102–3 to require Charpy impact testing for shell and head material of pressure tank cars used for poisonous-by-inhalation material.

Related to NTSB Safety Recommendation R–12–007, PHMSA proposes to:

• In § 179.10, incorporate by reference AAR Specifications for Tank Cars Chapter 6, to require compliance with AAR's redesigned center and draft sill attachment requirements.

B. Highway

PHMSA, in conjunction with FMCSA, proposes numerous revisions to the HMR related to transportation of hazardous materials by highway (*i.e.,* motor vehicle). PHMSA expects these proposed revisions to enhance the safe transportation of hazardous materials by highway while providing greater clarity and regulatory flexibility. In addition to various other revisions to the HMR, PHMSA proposes the following amendments:

• In part 107, subpart F, revise the registration requirements to allow for electronic submission procedures;

• In part 107 subpart F, create cargo tank facility modification, suspension, and termination procedures; reconsideration of modification, suspension, and termination procedures; and appeal of modification, suspension, and termination procedures;

• In § 171.7, revise editorially the ASTM D 1838–64 IBR document to include reference to the 1968 reapproval date;

• In § 171.7, update the Compressed Gas Association (CGA) Technical Bulletin P–26 (formerly TB–2) IBR document to the 1997 edition;

• In § 171.7, replace current incorporation by reference of CI drawings with the entire CI Pamphlet 49, which would include the use of the Midland Type PRD for chlorine cargo tank in § 173.315;

• In the § 172.336(c) table, add a sixth row to specify that a cargo tank may display the UN ID number of the petroleum distillate fuel with the lowest flash point transported in different trips on the previous or current business day, except for gasoline and alcohol fuel blends with more than 10% ethanol;

• In §§ 173.150(f)(3)(viii) and 177.837(c), require bonding and grounding when preparing to transfer or transferring a combustible liquid, or a flammable liquid reclassified as a combustible liquid, from a cargo tank motor vehicle, in addition to the current requirements for flammable liquids;

• In § 177.816(c) and (d), clarify the use of tank vehicle endorsement or hazardous materials endorsement training to fulfill the hazardous materials training requirements of §§ 172.704 and 177.816;

• In § 177.835, clarify that a multipurpose bulk truck may not be used in combination with any cargo tank that is required to be marked or placarded under § 177.823;

• In § 177.840, clarify that the requirements apply to external self-closing stop valves in addition to the current requirement of internal self-closing stop valves;

• In § 178.320, revise definitions for *cargo tank, cargo tank motor vehicle,* and *minimum thickness* and add definitions for: *cargo tank motor vehicle certification date, component, flexible connector, lading retention system, lining, name plate, original test date, sacrificial device, shear section,* and *specification plate;*

• In § 178.337–1(d), allow the use of other external coverings besides paint;

• In §§ 178.337–8, 178.338–11, and 178.345–11, specify that mechanical means of remote closure for manual operation must not be obstructed to prevent access to or operation of remote means of closure in an emergency;

• In §§ 178.337–10 and 178.338–10, clarify that the exception in § 393.86 for wheels back vehicles does not apply;

• In §§ 178.337–17 and 178.338–18, revise the specification plate attachment requirement so that the specification plate must be permanently attached to the cargo tank or its integral supporting structure, instead of the cargo tank motor vehicle chassis rail;

• In §§ 178.337–18 and 178.338–19, specify that when the cargo tank motor vehicle is brought into full compliance, the specification plate is marked with the cargo tank motor vehicle certification date;

• In § 178.338–19, revise the certification language so that it more closely mirrors certification language for other DOT specification cargo tank motor vehicles;

• In § 178.345–1, remove definitions that are also defined in § 178.320;

• In § 178.345–14, clarify that when there is no limit for the maximum loading or unloading rate in gallons per minute, the specification mark may be marked ''NONE'' or ''OPEN MH'';

• In § 180.403, add definitions for *cargo tank maintenance, certification plate, objectively reasonable and articulable belief,* and *set pressure,* and revise the definition of *repair;*

• In a new paragraph in § 180.405(b)(3), provide instruction on the replacement of cargo tank and cargo motor vehicle specification plates;

• In a new § 180.407(a)(7), specify that all equipment and instruments used to test cargo tanks must be calibrated, with appropriate documentation, in accordance with the manufacturer's instructions;

• In a new § 180.407(a)(8), allow for the use of video cameras or video optics equipment for any inspection or test;

• In a new § 180.407(a)(9), require that cargo tank motor vehicle pressure tests conducted tested at a pressure higher than 50 psi be done with the hydrostatic method, except for DOT Specification MC 338 cargo tanks used to transport cryogenic liquid;

• In a new § 180.407(a)(10), require that the Registered Inspector consult with the owner or motor carrier, as appropriate, to determine if materials corrosive or reactive to the cargo tank or its components were transported in the cargo tank motor vehicle since the last test or inspection, and ensure that the proper tests and inspections, along with suitable safeguards, are used;

• In a new § 180.407(a)(11), require that all sources of spark, flame, or glowing heat within the area in which the tests and inspections are conducted are extinguished, made inoperable, or rendered explosion-proof prior to all functions that are performed;

• In § 180.407(b), include ''bulges'' in the list of conditions that may render a

cargo tank unsafe for hazardous materials service;

• In § 180.407(b)(5), replace ''reasonable doubt'' with ''objectively reasonable and articulable belief'' to create a more consistent standard describing those circumstances in which a cargo tank—or series of cargo tanks—may be required to be tested and inspected outside of the normal test and inspection interval;

• In § 180.407(d)(2)(i), specify that the tank shell and head must be evaluated in accordance with § 180.411 and that during inspection of the cargo tank shell and heads, all pad attachments on either the cargo tank shell or head shell shall be inspected for method of attachments;

• In §§ 180.407(d)(2)(ix) and (g)(1)(iii), add an exception that the upper coupler must be removed if there are obstructions immediately above the cargo tank shell that prevent the upper coupler from being directly inspected;

• In a new paragraph § 180.407(d)(7), add inspection and maintenance requirements for external ring stiffeners installed on a cargo tank motor vehicle constructed of metal other than mild steel or high-strength low-alloy steel;

• In a new paragraph § 180.407(d)(8), clarify inspection and verification requirements for welded repairs;

• In § 180.407(f)(2), add documentation requirements for linings from the lining manufacturer or installer;

• In § 180.407(f)(3), add a requirement that when the degraded or defective areas of the cargo tank lining are repaired or if the lining is replaced, it must comply with lining manufacturer or installer procedures;

• In § 180.407(h)(4), specify that the test pressure of the delivery hose assembly must be at least 80 percent of the Maximum Allowable Working Pressure (MAWP) of the cargo tank;

• In § 180.407(i)(4)(v), specify that thickness testing must be performed on areas around shell reinforcements, including evenly distributed areas around all ring stiffeners and those areas in the bottom half of the cargo tank;

• In § 180.407(i)(6)(i), specify that the supplemental Certificate of Compliance that includes the minimum thickness issued by the DCE must be provided to the CTMV owner;

• In a new § 180.409(a)(4), clarify that the person performing or witnessing the inspections and tests must meet the training requirements of part 172 subpart H;

• In the § 180.411(b) list, include bulges as an additional condition requiring evaluation;

• In new § 180.411(h), specify conditions requiring removal from service and methods in which a cargo tank motor vehicle can be returned to service;

• In new § 180.411(i), specify that when required, emergency discharge control systems on a DOT Specification MC 330, MC 331, or a non-specification cargo tank motor vehicle operating under the provisions of § 173.315(k) must be present and functioning before passing any test or inspection; and

• In § 180.415(b), require that, unless already marked, the cargo tank registration number of the cargo tank facility performing the test or inspection must be marked on the cargo tank.

C. Vessel

PHMSA proposes several revisions to the requirements for transporting hazardous materials by vessel. These proposals are intended to increase transportation efficiency, increase harmonization with the International Maritime Dangerous Goods (IMDG) Code, and editorially revise the HMR while maintaining the high level of safety of vessel transport. The following proposals were developed in conjunction with the United States Coast Guard (USCG):

• In § 171.23(b)(5) and (b)(5)(iii), revise requirements for communicating the presence of hazardous substances by clarifying that only non-bulk packages are required to be marked with the letters ''RQ'' (to signify a reportable quantity), and the name of the hazardous substance, consistent with § 172.324;

• In new § 172.504(b)(2), remove the authorization to use the ''DANGEROUS'' placard for vessel transportation to reduce confusion and delays;

• In part 176, editorially revise the office identifier of the Coast Guard Commandant for Operating and Environmental Standards to the identifier for the Office of Design and Engineering Standards;

• In § 176.84(a), clarify editorially that hazardous materials transported in accordance with a limited quantity exception are not subject to the stowage codes assigned by Column (10B) of the § 172.101 Table; and

• In § 176.905, add an exception for vehicles stored onshore incidental to vessel transportation to align with similar exceptions offered to highway and rail transportation of vehicles.

D. Multi-Modal

PHMSA proposes several revisions that affect multiple modes of transportation. These proposals enhance safe transportation of hazardous materials and were developed in conjunction with the FRA, FMCSA, and USCG. Proposals include:

• In § 171.22(f)(4), clarify requirements for providing hazardous material shipping paper information during inspections;

• In § 172.102, revise special provision 13 to identify more clearly that security plan requirements apply;

• In the § 172.336(c) table, more clearly identify that the exception in the fifth row of the table applies only to compartmented cargo tanks or tank cars carrying more than one petroleum distillate fuel;

• In § 172.704(e)(1), provide an exception (including an editorial correction) for hazmat employees who manufacture, repair, modify, recondition, or test packagings, and who do not perform any other function, from security awareness training requirements;

• In Appendix C to part 172, revise the recommended placard holder dimensions to be consistent with the current placard size requirements, and in § 172.516(d), clarify that the current placard holder is an authorized placard holder; and

• In § 173.159(e), clarify that wet batteries must be loaded or braced to secure the batteries against shifting while in transportation and require that the offeror ensure that persons loading the batteries have knowledge of the conditional provisions for exceptions from the general requirements of the HMR.

IV. Section-by-Section Review

The following table identifies the sections and mode(s) of transportation affected by the proposed changes in this NPRM.

TABLE 2—SECTIONS AFFECTED BY THIS NPRM

Section affected	Mode of transportation
§ 107.1	Rail.
§ 107.105	Rail.
§ 107.502	Highway.
§ 107.503	Highway.
§ 107.505	Highway.
§ 107.506	Highway.
§ 107.507	Highway.
§ 107.701	Rail.
§ 107.901	Rail.
§ 107.903	Rail.
§ 107.905	Rail.
§ 107.907	Rail.
§ 107.909	Rail.
§ 107.911	Rail.
§ 107.913	Rail.
§ 107.915	Rail.
§ 171.6	Multi-modal.
§ 171.7	Multi-modal.
§ 171.8	Multi-modal.
§ 171.22	Vessel.
§ 171.23	Vessel.
§ 172.101	Rail.
§ 172.102	Multi-modal.
§ 172.303	Multi-modal.
§ 172.328	Highway.
§ 172.336	Multi-modal.
§ 172.504	Vessel.
§ 172.516	Multi-modal.
§ 172.704	Multi-modal.
§ 172.820	Rail.
Appendix C to Part 172.	Multi-modal.
§ 173.31	Rail.
§ 173.150	Highway.
§ 173.159	Multi-modal.
§ 173.241	Rail.
§ 173.242	Rail.
§ 173.247	Rail.
§ 173.314	Rail.
§ 173.315	Highway.
§ 173.320	Multi-modal.
§ 174.9	Rail.
§ 174.14	Rail.
§ 174.16	Rail.
§ 174.20	Rail.
§ 174.24	Rail.
§ 174.50	Rail.
§ 174.58	Rail.
§ 174.59	Rail.
§ 174.63	Rail.
§ 174.67	Rail.
§ 174.81	Rail.
§ 176.2	Vessel.
§ 176.84	Vessel.
§ 176.340	Vessel.
§ 176.905	Vessel.
§ 177.801	Highway.
§ 177.804	Highway.
§ 177.816	Highway.
§ 177.835	Highway.
§ 177.837	Highway.
§ 177.840	Highway.
§ 177.841	Highway.
§ 178.320	Highway.
§ 178.337–1	Highway.
§ 178.337–2	Highway.
§ 178.337–3	Highway.
§ 178.337–8	Highway.
§ 178.337–9	Highway.
§ 178.337–10	Highway.
§ 178.337–17	Highway.
§ 178.337–18	Highway.
§ 178.338–3	Highway.
§ 178.338–10	Highway.
§ 178.338–11	Highway.
§ 178.338–18	Highway.
§ 178.338–19	Highway.
§ 178.345–1	Highway.
§ 178.345–3	Highway.
§ 178.345–8	Highway.
§ 178.345–11	Highway.
§ 178.345–13	Highway.
§ 178.345–14	Highway.
§ 178.345–15	Highway.
§ 178.348–1	Highway.
§ 179.2	Rail.
§ 179.3	Rail.
§ 179.4	Rail.
§ 179.5	Rail.
§ 179.6	Rail.
§ 179.7	Rail.
§ 179.10	Rail.
§ 179.11	Rail.
§ 179.24	Rail.
§ 179.100–9	Rail.
§ 179.100–10	Rail.
§ 179.100–12	Rail.
§ 179.100–18	Rail.
§ 179.102–3	Rail.
§ 179.103–5	Rail.
§ 179.200–7	Rail.
§ 179.200–10	Rail.
§ 179.200–11	Rail.
§ 179.200–17	Rail.
§ 179.200–22	Rail.
§ 179.220–10	Rail.
§ 179.220–11	Rail.
§ 179.220–15	Rail.
§ 179.220–18	Rail.
§ 179.300–9	Rail.
§ 179.300–10	Rail.
§ 179.400–5	Rail.
§ 179.400–6	Rail.
§ 179.400–11	Rail.
§ 179.400–12	Rail.
§ 179.400–13	Rail.
§ 179.400–15	Rail.
§ 179.400–18	Rail.
§ 179.400–19	Rail.
§ 179.500–17	Rail.
§ 179.500–18	Rail.
Appendix B to Part 179.	Rail.
§ 180.3	Multi-modal.
§ 180.403	Highway.
§ 180.405	Highway.
§ 180.407	Highway.
§ 180.409	Highway.
§ 180.411	Highway.
§ 180.413	Highway.
§ 180.415	Highway.
§ 180.416	Highway.
§ 180.501	Rail.
§ 180.503	Rail.
§ 180.509	Rail.
§ 180.513	Rail.
§ 180.517	Rail.
Appendix D to Part 180.	Rail.

The following is a section-by-section review of the proposed amendments:

Part 107

Section 107.1

Section 107.1 is the definition section for Part 107—''Hazardous Materials Programs Procedures.'' The definition of ''registration'' currently states that, ''For purposes of subparts A through E, ''registration'' does not include registration under subpart F or G of this part.'' In this NPRM, we propose to add a reference to the new subpart J for tank car facility and tank car DCE registration to the existing references to subpart F or G. This will ensure that the registration requirements of subpart J for tank car facilities and DCEs are not confused or conflated with other registration requirements in Part 107. See also our discussion in ''Section II.B.5 Tank Car Facility and Design Certifying Engineer Registration'' for additional information.

Section 107.105

Section 107.105 contains the general information and supporting documentation requirements for special permit applications. Paragraph (a)(5) requires that special permit applicants who hold a registration under subparts F or G of Part 107 must include their registration number in their special permit application. PHMSA proposes to add a reference to the new subpart J to paragraph (a)(5), to require that tank car facilities or tank car DCEs who submit a special permit application to PHMSA include their registration number. This will allow PHMSA to more easily cross-reference tank car facility or DCE registration records with the special permit request. See also our discussion in ''Section II.B.5 Tank Car Facility and Design Certifying Engineer Registration'' for additional information.

Section 107.502

Section 107.502 details general registration requirements for persons who are engaged in the manufacture, assembly, inspection and testing, certification, or repair of a cargo tank or a cargo tank motor vehicle manufactured in accordance with a DOT specification or a special permit. Paragraph (a)(3) specifies reference citations to certain terms used in the HMR. PHMSA proposes to add a reference to the definition of *modification,* which is currently found in § 180.403. In addition—and as detailed later in this rulemaking—PHMSA proposes to add a definition of *component* to § 178.320(a) and a definition of *maintenance* to § 180.403, and PHMSA proposes to reference these

terms in paragraph (a)(3). Additionally, PHMSA proposes to add references to these definitions as they are all related to the cargo tank registration program and the references will provide greater understanding of the registration requirements. See ''Section IV. Section-by-Section Review; Part 178; Section 178.320'' and ''Section IV. Section-by-Section Review; Part 180; Section 180.403'' for further discussion of the proposed definitions.

PHMSA also proposes to add paragraphs (a)(4) through (a)(9) to specify definitions for *fixed test and inspection facility, FMCSA Agency Decisionmaker, FMCSA Agency Official, mobile tester, mobile testing* and *mobile test and inspection unit.* The definitions of *fixed test and inspection facility, mobile tester, mobile testing,* and *mobile test and inspection unit* are proposed to provide additional clarity and to help distinguish between fixed facilities and mobile testing units. As currently required, the registration statement must specify ''whether the facility uses mobile testing/inspection equipment'' (*see* § 107.503(a)(3)). However, the HMR does not include definitions to help distinguish these types of operations. *Furthermore,* the definitions for *FMCSA Agency Decisionmaker* and *FMCSA Agency Official* are being proposed as they are referenced in new §§ 107.505, 107.506, and 107.507, and they align with FMCSA's organizational structure.

Paragraph (b) specifies that a person who is employed as a Registered Inspector or DCE is considered to be registered if the person's employer is registered. PHMSA proposes minor editorial changes to specify that the ''inspector'' is a ''Registered Inspector'' and capitalize the term ''Design Certifying Engineer.''

Paragraph (d) specifies submission information for registration statements. PHMSA proposes to revise this paragraph to include an electronic method for submitting registration statements. In addition, PHMSA proposes to make editorial revisions of an administrative nature to this paragraph, including revising the mailing address for FMCSA.

Paragraph (e) details the applicant's receipt of registration statement. The first sentence specifies that a letter will be sent to the registrant and will assign the registrant with a registration number. The second sentence specifies that a separate registration number will be assigned for each cargo tank manufacturing, assembly, repair facility or other place of business identified by the registrant. PHMSA proposes to revise the first sentence of paragraph (e) to allow for the registrant letter to be sent electronically instead of only in a hard copy. This will promote electronic correspondence with FMCSA, which is faster and more efficient for all parties. PHMSA also proposes to move the second sentence of paragraph (e) to a new paragraph (f), but the regulatory text within the second sentence will remain unchanged. The proposed change provides increased visibility and emphasis that a separate registration number will be assigned for each cargo tank manufacturing, assembly, or repair facility, or other place of business identified by the registrant.

Section 107.503

This section specifies the requirements pertaining to the registration statement for persons who are engaged in the manufacture, assembly, inspection and testing, certification, or repair of a cargo tank or a cargo tank motor vehicle manufactured in accordance with a DOT specification or a special permit. PHMSA proposes to revise paragraph (a)(2) to include an email address for the facility or place of business, if applicable (*i.e.,* if they have an email address). This will promote electronic correspondence with FMCSA which is faster and more efficient for all parties.

PHMSA proposes to revise the statement for compliance in paragraph (a)(4) to ensure that the person responsible for compliance certifies that hazmat employees meet the minimum qualification requirements set forth in § 171.8 for Registered Inspectors or DCEs, and that they are appropriately trained and knowledgeable of all the functions they are registered to perform. FMCSA notes that one of the top violations of employers is a lack of hazmat training of hazmat employees, including Registered Inspectors or DCEs. Therefore, the certification statement is revised to include reference to training to emphasize the requirement.

In paragraph (c), PHMSA proposes to remove the last sentence, as June 30, 1992, has passed and thus, this is an outdated requirement.

Lastly, PHMSA proposes to add paragraph (d) to require that each person who performs the wet fluorescent magnetic particle exam submit a copy of their ASME Code compliant training certificate. The training is required in both Section V (Non-Destructive Examinations) and Section VIII, Division 1 of the ASME Code. Requiring the certificate will ensure that FMCSA can verify that each person who performs the wet fluorescent magnetic particle exam has received the appropriate training.

Section 107.505

This proposed new section provides for the modification, suspension, or termination of a cargo tank facility registration. During 2019, FMCSA investigations of cargo tank facilities discovered 254 instances where the facilities had not been in compliance with the regulatory requirements, yet the Department does not have a codified process to modify, suspend, or terminate registrations to address lack of compliance. The proposal to allow the modification, suspension or termination of cargo tank facility registrations also addresses NTSB Safety Recommendation H–18–005,[31] issued on January 30, 2018. This recommends that PHMSA revise the HMR to permit the suspension or termination of highway cargo tank registrations for failing to meet the requirements of the HMR. The safety recommendation was made after a March 11, 2016, incident where a cargo tank semitrailer separated from its truck-tractor and struck a rock. The impact with the rock breached the front head of the cargo tank, causing the lading to spill and a fire to occur. Although the investigation determined that the condition of the cargo tank was acceptable and its performance was consistent with its design, the investigation also discovered safety issues with inspection and testing of DOT Specification MC330 and MC331 cargo tanks and certification and training of cargo tank inspectors. The NTSB concluded that DOT needs to be able to suspend or terminate a cargo tank registration to ensure that when cargo tank facilities perform inadequate inspections, their authorization to do so can be terminated. Based on this safety recommendation, and additional recognition by FMCSA for the need of the ability to modify, suspend, or terminate a cargo tank registration, PHMSA proposes to add § 107.505 (along with § 107.506 for reconsideration and § 107.507 for appeal) to provide this authority. PHMSA proposes that this modification, suspension, or termination process in § 107.505 be consistent with existing FMCSA procedures for adjudicating motor carrier violations.

As proposed in paragraph (a), reasons for modification, suspension, or termination include: (1) that because of a change in circumstance, the registration is no longer needed or would not be granted if applied for; (2) that the application contained

[31] See NTSB Safety Recommendation H–18–005: *https://ntsb.gov/safety/safety-recs/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=H-18-005.*

inaccurate or incomplete information and it would not have been granted had it included accurate and complete information; (3) that the application contained deliberately inaccurate or incomplete information; or (4) that the registration holder knowingly violated the terms of the registration or an applicable requirement of 49 CFR Chapter I in a manner demonstrating lack of fitness to conduct the activity for which the registration is required. Upon determination of this modification, suspension, or termination, and as proposed in paragraph (b), FMCSA will notify the registrant in writing or by electronic means of the proposed action and allow opportunity to show cause as to why the proposed action should not be taken. The registrant will then have 30 days from service of the notice to file a response to the notice. After consideration of the response, or after 30 days if no response has been filed, the FMCSA Agency Official will notify the registrant of a final decision with a brief statement of reasons and effective date of the action.

However, as proposed in paragraph (d), if a condition of imminent hazard exists, the FMCSA Agency Official may issue an immediately effective emergency order to the registration holder in accordance with § 109.17 of this subchapter.

As proposed in paragraph (c), the rules of practice for FMCSA proceedings for service and computation of time in §§ 386.6 and 386.8 of this title apply to this section, except that electronic service is permitted.

Section 107.506

This proposed new section provides for reconsideration of a registration that was modified, suspended, or terminated in accordance with proposed § 107.505. This proposed process is similar to existing FMCSA procedures. As proposed in paragraph (a), this request would be: (1) in writing or by electronic means and served within 20 days of service of the original decision; (2) state in detail any alleged errors of fact, law, or procedure; (3) state corrective actions taken, (4) enclose any additional information needed to support the request to reconsider; and (5) state in detail the modification of the final decision.

As proposed in paragraph (b), the decision issued under § 107.505 of this part remains effective pending a decision on reconsideration. The FMCSA Agency Official will consider requests to stay the decision using the criteria laid out in proposed § 107.507(b)(1)–(4). As proposed in paragraph (c), the FMCSA Agency Official request may request additional information or documents and, to ensure that the deficiencies identified as the basis for the action have been corrected, may conduct additional investigation. Furthermore, paragraph (d) specifies that the FMCSA Agency Official will grant or deny, in whole or in part, the relief requested, and the notification will be made in writing or by electronic means. As proposed in paragraph (e), the rules for FMCSA proceedings for service and computation of time in §§ 386.6 and 386.8 of this title apply to this section, except that electronic service is permitted.

Section 107.507

This proposed new section provides for an appeal process for a cargo tank facility that has had its registration modified, suspended, or terminated by the Department in accordance with proposed § 107.505 and has been denied reconsideration in accordance with proposed § 107.506. This ensures that the registrant has been provided due process. As proposed, the appeal of the FMCSA Agency Official's decision is adjudicated by the FMCSA Agency Decisionmaker. Similar to §§ 107.505 and 107.506, the language in proposed § 107.507 is intended to reflect existing FMCSA procedures.

As proposed in paragraph (a), the appeal will be submitted to the FMCSA Agency Decisionmaker and must: (1) be in writing and served within 30 days of receipt of the FMCSA Agency Official's decision on the FMCSA Agency Decisionmaker at the mailing or email address provided and on all parties to the proceeding; (2) state in detail any alleged errors of fact, law, or procedure; (3) enclose any additional information needed to support the appeal; and (4) state in detail the modification of the final decision sought. Furthermore, as detailed in paragraph (b), the FMCSA Agency Official's action remains effective pending a decision on appeal, unless a stay is requested and the FMCSA Agency Decisionmaker determines:

(1) There is a substantial likelihood that the requesting party will prevail on the merits;

(2) The requesting party will suffer irreparable injury absent the stay;

(3) The threatened injury outweighs whatever damage the stay may cause the opposing party; and

(4) The stay will not harm the public interest.

As proposed in paragraph (c) the FMCSA Agency Official, who bears the burden of proof, will respond to the appeal within 30 days of service of the appeal. Lastly, as proposed in paragraph (d), the FMCSA Agency Decisionmaker will grant or deny, in whole or in part, the relief requested. This decision is the final agency action.

As proposed, the rules for FMCSA proceedings for service and computation of time in §§ 386.6 and 386.8 of this title apply to this section, except that electronic service is permitted. This decision is the final administrative action.

Section 107.701

Section 107.701 contains the procedural requirements for the submission of registrations. PHMSA proposes to add an exception to paragraph (c) for the new subpart J. This exception will be applicable to tank car facilities and tank car DCE registrations. This aligns with the exception currently provided in paragraph (c) for subpart F, for cargo tank facilities and cargo tank DCEs. It allows tank car facility and tank car DCE registrations to be handled in the separate procedural manner outlined in the proposed subpart J, in which the registrations will be submitted to PHMSA, but subject to termination by FRA. See also our discussion in ''Section II.B.5 Tank Car Facility and Design Certifying Engineer Registration'' for additional information.

Part 107, Subpart J—''REGISTRATION OF TANK CAR FACILITIES AND DESIGN CERTIFYING ENGINEERS''

PHMSA proposes to create subpart J in part 107 (§§ 107.901–107.915) for tank car facility and tank car DCE registrations. The subpart includes definitions for terms used in the subpart, instructions for applying for registration for both tank car facilities and DCEs, and means of appeal if a registration is modified, suspended, or terminated. See also ''Section II.B.5. Tank Car Facility and Design Certifying Engineer Registration'' for additional details on the creation of this subpart.

Section 107.901

This proposed new section § 107.901 details the purpose and scope of new part 107 subpart J. Part 107 subpart J addresses the registration of tank car facilities and DCEs. Paragraph (b) details the threshold requirement that applicants for registration must be familiar with the HMR's requirements regarding specifications for tank cars (part 179) and the qualification and maintenance of tank cars (part 180, subpart F).

Section 107.903

This proposed new section § 107.903 details terms used in part 107, subpart

J and includes references to the location of their definition. The terms that PHMSA proposes to include in this section are *Design Certifying Engineer* (defined in § 171.8), *Qualification* (defined in § 180.503), *Tank car* (defined in § 179.2), *Tank car facility* (defined in § 179.2), and *Tank car tank* (defined in § 180.503). Additionally, PHMSA proposes to define *FRA Associate Administrator for Safety* and *FRA Administrator* as used in this subpart.

Section 107.905

This proposed new § 107.905 details the requirements for submitting a tank car facility registration, including the information required in the registration statement and where to send the information. This section requires all tank car facilities to register with PHMSA in order to legally qualify a DOT specification or special permit tank car.

In order to register with PHMSA, each tank car facility is required to provide a list of the qualification functions the tank car facility will perform, and identify the types of DOT specification or special permit tank cars that they intend to qualify. Paragraph (b) of this section prohibits tank car facilities from performing qualification functions that have not been identified in the registration. Each facility must also submit an executive summary of its current quality assurance program that is sufficient to demonstrate compliance with the requirements set out in § 179.7 in order to complete the registration process. PHMSA anticipates that this information will allow for effective oversight of registered tank car facilities.

Section 107.907

This proposed new § 107.907 details the requirements for submitting a tank car DCE registration. This section requires a DCE to be registered with PHMSA in order to legally approve the design of a DOT specification or DOT special permit tank car, as well as service equipment, and details the required information in the registration statement and where to send the information. Each registrant is required to provide a list of the specific design approval functions that the DCE will perform and identify the types of DOT specification and special permit tank cars and service equipment that the DCE will review. Paragraph (b) of this section prohibits design certifying engineers from performing design approval functions that have not been identified in the registration application. The registrant must also provide the name of each DCE, and a description of each DCE's experience that shows that they meet the requirements set out in § 171.8. PHMSA anticipates that this information will allow for effective oversight of registered tank car facilities.

Section 107.909

This proposed new § 107.909 details the proposed administrative details of the tank car facility and tank car DCE registration, including renewal requirements, requirements to update PHMSA on changes in activity and personnel, and record retention. As proposed, DCE registrations must be renewed every six years, and registrants must keep PHMSA updated on changes in company name, address, ownership, personnel employed as tank car DCEs, and design approval activities performed by the registrant. PHMSA will inform FRA of these changes. PHMSA and FRA intend that this communication will increase our level of oversight on the activities of engineers who review and approve tank car and service equipment designs compared the existing AAR TCC closed system. Additionally, non-compliance with these requirements may create the basis for revocation of the registration. This will allow PHMSA and FRA greater enforcement ability than the current system, which will lead to an increased level of safety.

Section 107.911

This proposed new § 107.911 details the reasons for which FRA may modify, suspend, or terminate a tank car facility or DCE registration. As proposed in paragraph (a), reasons for modification, suspension, or termination include: (1) because of a change in circumstances, the registration is no longer needed or would no longer be granted if applied for; (2) that the application contained inaccurate or incomplete information and it would not have been granted if complete or accurate information was provided; (3) that the application contained deliberately inaccurate or incomplete information; or (4) that the registration holder knowingly violated the terms of the registration or an applicable requirement of 49 CFR Chapter I in a manner demonstrating lack of fitness to conduct the activity for which the registration is required. Upon determination of this modification, suspension, or termination, and as proposed in paragraph (b), FRA will notify the registrant in writing or by electronic means of the proposed action and allow opportunity to show cause as to why the proposed action should not be taken. The registrant will then have 30 days to file a response to the notice. After consideration of the response, or after 30 days have elapsed with no response from the registrant, the Associate Administrator for Safety, FRA will notify the registrant of a final decision with a brief statement of reasons.

However, as proposed in paragraph (c), if it is necessary to avoid a risk of significant harm to persons or property, then the Associate Administrator for Safety, FRA may declare the proposed corrective action immediately effective.

Section 107.913

This proposed new § 107.913 details the proposed process for requesting reconsideration of FRA's decision to modify, suspend, or terminate a tank car facility or DCE registration. This proposed process is similar to the current special permit and approval reconsideration procedures in §§ 107.123 and 107.715, respectively. As proposed in paragraph (a), this request would be: (1) by electronic means and filed within 20 days of receipt of the decision; (2) state in detail any alleged errors of fact and law; (3) enclose any additional information needed to support the request to reconsider; and (4) state in detail the modification of the final decision.

As proposed in paragraph (b), newly submitted information will be considered if the registration holder can show that the information could have not been submitted when the application was processed. Furthermore, paragraph (c) specifies that the Associate Administrator for Safety, FRA will grant or deny, in whole or in part, the relief requested, and allows the Associate Administrator for Safety, FRA to notify the requesting party of the decision in writing or by electronic means.

Section 107.915

This proposed new § 107.915 details the process for requesting an appeal of FRA's decision on reconsideration regarding a modified, suspended, or terminated tank car facility or DCE registration. This will ensure that the registrant has been provided due process. The appeal of the Associate Administrator for Safety, FRA's decision will be adjudicated by the FRA Administrator. Similar to §§ 107.911 and 107.913, the language in § 107.915 mirrors the current appeal process for DOT special permits and approvals in §§ 107.125 and 107.717, respectively, except that the appeal is directed to FRA, rather than PHMSA.

As proposed in paragraph (a), the appeal will be submitted to the FRA Administrator and must: (1) be by electronic means and filed within 30

days of receipt of the Associate Administrator for Safety, FRA's decision; (2) state in detail any alleged errors of fact and law; (3) enclose any additional information needed to support the appeal; and (4) state in detail the modification of the final decision sought. Furthermore, as detailed in paragraph (b), the FRA Administrator may declare the Associate Administrator for Safety, FRA's action remain effective pending a decision on appeal, if it is necessary to avoid a risk of significant harm to persons or property. Lastly, as proposed in paragraph (c), the FRA Administrator will grant or deny, in whole or in part, the relief requested. This decision is the final administrative action.

Part 171

Section 171.6

Section 171.6 provides information on the Office of Management and Budget (OMB) control numbers assigned to information collection in the HMR under the Paperwork Reduction Act of 1995. The paragraph (b)(2) table lists all of the HMR sections associated with each OMB control number. As this NPRM proposes to add new information collection to the regulations, PHMSA proposes to revise the table to include the section references where this information collection request is specified. In addition, PHMSA proposes minor editorial revisions for grammatical consistency. For details on the affected OMB control numbers, see ''Section V.G. Paperwork Reduction Act.''

Section 171.7

This section details the IBR documents in the HMR. Paragraph (h) details IBR documents of the American Society of Testing and Materials (ASTM). In paragraph (h)(39), PHMSA proposes an editorial revision for standard method ''ASTM D 1838–64 Copper Strip Corrosion by Liquefied Petroleum (LP) Gases, 1964'' by adding the date ''Reapproved 1968.'' The current IBR document for the 1964 edition of ASTM 1838–64 has a reapproved date of 1968, but it is not specified in § 171.7. Therefore, PHMSA proposes this editorial amendment to add this date to provide regulatory clarity without amending the actual IBR standard. This standard is available for purchase at the following online location: *https://webstore.ansi.org/.*

Paragraph (k) details IBR documents of the AAR. In paragraph (k), PHMSA proposes to revise editorially the AAR mailing address and website. As discussed in ''Section II.A. Railroad Safety Advisory Committee,'' PHMSA proposes to update the edition of and revise how the AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars) is incorporated by reference in the HMR. Specifically, PHMSA proposes to update the 2014 edition of the AAR Specifications for Tank Cars, divide it into its component chapters and appendices and incorporate by reference each chapter and appendix in the relevant section of the HMR, as agreed to by the RSAC. This revision provides more specificity on the relevant AAR chapters and appendices that are incorporated by reference throughout the HMR, instead of generally indicating the entire manual. Additionally, PHMSA proposes to update the edition of the AAR Manual of Standards and Recommended Practices, Section C—II, Specifications for Design, Fabrication and Construction of Freight Cars, Chapter 5 to the 2011 edition from the 1988 edition, as agreed by the RSAC. This update also requires updating the title of the standard from ''AAR Specifications for Design, Fabrication and Construction of Freight Cars,'' to ''AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication and Construction of Freight Cars'' and moving the IBR from § 171.7(k)(4) to paragraph (k)(1) to align with the numerical organization of this paragraph. PHMSA also proposes to incorporate by reference the updated 2016 edition of the AAR Manual of Standards and Recommended Practices, Section C, Car Construction Fundamentals and Details, Standard S–286, Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars for rail cars weighing up to 286,000 lbs., as agreed in RSAC into § 179.13, and move the current S–286 IBR reference to § 171.7(k)(20). These revisions are intended to update the incorporated by reference versions of these industry standards to reflect the current state of the art.

There are several sections and appendices from the AAR Specifications for Tank Cars that were recommended by the RSAC but are not proposed. This is because, based on the proposal to remove AAR as the sole approval for tank car designs, the incorporation by reference of these sections and appendices is not needed in the HMR at this time. As such, PHMSA does not propose to IBR Appendix B, Appendix L, and Appendix U of the AAR Specifications for Tank Cars into the HMR. As a matter of amendatory instructions, in § 171.7(k), PHMSA proposes to reserve where the omitted chapters and appendices would traditionally be located for future regulatory flexibility. See ''Section II.B.6. AAR Specifications for Tank Cars Incorporation by Reference'' for additional details.

PHMSA also proposes to incorporate by reference the following AAR documents:

- AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication and Construction of Freight Cars, Chapter 6 into § 179.400–6;
- AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars) Chapter 2 in § 179.102–3;
- AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars) Chapter 3 into §§ 173.241, 173.242, and 173.247; and
- AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars) Appendix W into § 179.11.

Additional information on the purpose and intent of these IBRs can be found in their respective section-by-section discussions. These standards are available for purchase at the following online location: *https://aarpublications.com/msrp.html.*

Paragraph (l) details IBR documents of the CI. Currently, paragraphs (l)(3) and (l)(4) include the IBR drawings for authorized PRDs for cargo tanks transporting chlorine. As discussed in ''Section II.E. P–1712,'' instead of adding the third drawing found in CI Pamphlet 49 to § 171.7, PHMSA proposes to remove the references to the PRD drawings and incorporate by reference CI Pamphlet 49 in total. Thus, PHMSA proposes to revise paragraph (l)(3) to read ''Pamphlet 49, Recommended Practices for Handling Chlorine Bulk Highway Transports, Edition 10, December 2016, into § 173.315'' and reserving paragraph (l)(4). This standard is available for purchase at the following online location: *https://www.chlorineinstitute.org/products.*

Paragraph (n) details IBR documents of the CGA. In paragraph (n)(21), PHMSA proposes to update ''CGA Technical Bulletin TB–2, Guidelines for Inspection and Repair of MC–330 and

MC–331 Cargo Tanks, 1980'' to the 1997 edition, reaffirmed in 2015. The Technical Bulletin is now titled ''P–26: Guidelines for Inspection and Repair of MC–330 and MC–331 Anhydrous Ammonia Cargo Tanks (formerly TB–2).'' PHMSA proposes to incorporate by reference this newer version because it directs readers to the correct, relevant HMR citations and provides clearer instruction on the guidelines provided in the standard. For example, many of the HMR references in the 1980 edition (*i.e.,* the current IBR) point to part 173; however, the requirements are now found in part 180. PHMSA has reorganized the HMR and, thus, the citations in the 1980 edition are inaccurate, and updating to the 1997 edition will provide correct citations. These standards are available for purchase at the following online location: *https://www.cganet.com/standards/.*

Section 171.8

Section 171.8 defines terms in the HMR. PHMSA proposes to amend the following definitions:

- *Cargo tank:* PHMSA proposes several minor editorial revisions to paragraph (1), which currently defines the materials a cargo tank is intended to hold, the encompassing parts of a cargo tank, and the HMR citations that detail cargo tank specifications. PHMSA proposed revisions include:
  - Add ''solids'' and ''semi-solids'' to the list of materials transported in cargo tanks, consistent with the § 178.320(a) definition of *cargo tank;*
  - Consistent with the proposal to add a definition for *component,* which includes ''fittings'' as a type of component, replace the term ''fittings'' with the term ''components.'' See ''Section IV. Section-by-Section Review; Part 178; Section 178.320'';
  - Alphabetize the list of parts of a cargo tank encompassed in the definition;
  - Revise the phrase ''the definition of a tank'' to read as ''cargo tank specifications'' in the parenthetical introductory language as this more accurately describes the section references list in paragraph (1);
  - Add a reference to § 178.345–1, as it is currently not included in the citation list, but should be included, as this section details cargo tank specifications for DOT Specification 406, 407, and 412 cargo tanks.
- *Design Certifying Engineer:* PHMSA proposes to make an editorial amendment to the current cargo tank DCE definition and add provisions to account for a tank car DCE. To accommodate the new criteria for a tank car DCE, PHMSA proposes to reorganize the current cargo tank DCE requirements from paragraphs (1)–(3) to paragraphs (1)(i)–(iii). PHMSA also proposes an editorial amendment in proposed paragraph (1)(i) to clarify that the one year of work experience requirement is a minimum requirement. The definition currently specifies a person must have exactly one year of experience in cargo tank structural or mechanical design with an engineering degree; however, it is not PHMSA's intent to limit this to only one year of experience. Instead, a person with at least one year of work experience in cargo tank structural or mechanical design, in addition to an engineering degree, meets the definition of a DCE for cargo tanks.

Additionally, and as previously discussed, PHMSA proposes to add criteria for a tank car DCE. As such, PHMSA proposes to revise the introductory paragraph and add paragraphs (2)(i) and (ii). The proposed criteria in paragraphs (2)(i) and (ii) mirror the current cargo tank DCE criteria in paragraphs (1)(i) and (ii). Specifically, as proposed, a *Design Certifying Engineer* for a tank car is ''a person registered in accordance with subpart . . . J of part 107 . . . who has the knowledge and ability to perform stress analysis of pressure vessels and otherwise determine whether a . . . tank car design and construction meets the applicable DOT specification.'' In addition, a tank car DCE is a person who either: ''(i) has an engineering degree and at least one year of work experience in tank car structural or mechanical design or (ii) is currently registered as a professional engineer by an appropriate authority of a State of the United States or a province of Canada.'' See ''Section II.B.2. Tank Car Design Approval'' for additional information on the proposed creation of tank car DCEs and ''Section II.B.5. Tank Car Facility and Design Certifying Engineer Registration'' for additional details on proposed registration requirements for DCEs.

Section 171.22

Section 171.22 authorizes the use of international dangerous goods transportation standards in place of the HMR, subject to the conditions and restrictions of §§ 171.22 to 171.26, including use of the International Civil Aviation Organization's (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air (Technical Instructions), the IMDG Code, Transport Canada's Transportation of Dangerous Goods (TDG) Regulations, and the International Atomic Energy Agency (IAEA) Regulations. PHMSA proposes to revise paragraph (f)(4) to specify that in addition to retaining a copy of the shipping paper, a person who provides for transportation or receives for transportation a shipping paper must make the shipping paper readily accessible for inspection. PHMSA and its modal partners have determined that the current shipping paper accessibility requirements in § 171.22(f)(4) create unnecessary delays during routine inspections because these forms are often made available several hours or days after the inspections are conducted. Therefore, PHMSA proposes to revise paragraph (f)(4) to indicate more clearly the expectation that shipping paper information must be made readily accessible to inspectors or other authorized individuals during inspections. This change is intended to increase safety by improving the ability of inspectors to conduct their reviews of hazardous materials shipments and increase efficiency by facilitating a quicker return to commerce for hazardous materials delayed by inspection. The intent of this revision is to ensure timely provision of shipping paper information for inspection of shipments in transportation (*e.g.,* container inspections in port areas). Access to historic shipping paper information after transportation has ended is a separate scenario, and may have other standards for reasonable provision of shipping paper information (*e.g.,* close of business the following business day for historic rail shipping paper information). See ''Section IV. Section-by-Section Review; Part 174; Section 174.24'' for further discussion of historic shipping paper availability in rail transportation.

Section 171.23

Section 171.23 establishes HMR requirements for specific materials and packagings transported under the ICAO Technical Instructions, IMDG Code, Transport Canada's TDG Regulations, and the IAEA Regulations. PHMSA proposes to revise the introductory text of paragraph (b)(5) and paragraph (b)(5)(iii) to clarify that the letters ''RQ'' and the name of the hazardous substance must be marked only on non-bulk packages that contain reportable quantities of a hazardous substance. The HMR do not currently require this marking on bulk packages because § 172.324, which requires the ''RQ'' marking, only applies to non-bulk packages. However, PHMSA and USCG understand that international shippers occasionally misinterpret § 171.23(b) as requiring this marking on bulk packagings. This proposed revision is

intended to decrease burdens on shippers by clarifying which markings are required and to avoid confusion in port areas. Shippers may apply the letters ''RQ'' and the name of the hazardous substance on a bulk packaging, but PHMSA and USCG discourage this practice as it might be unnecessarily confusing and burdensome.

Part 172

Section 172.101

Section 172.101 lists the HMT and provides explanatory text on the use of the table. Paragraph (j) provides explanatory text about Columns (9A) and (9B) of the HMT, including an indication that Column (9A) of the HMT identifies the maximum quantity of hazardous materials that may be offered in one package when transported by passenger-carrying aircraft or passenger-carrying rail car. However, as defined in § 171.8, a *rail car* means a car designed to carry freight or non-passenger personnel by rail. Therefore, a ''passenger-carrying rail car'' is inconsistent with the definition of a *rail car.* PHMSA proposes to revise editorially § 172.101(j) to indicate instead that Column (9A) is for the quantity limitation of passenger-carrying aircraft and passenger-carrying rail. This proposal decreases potential regulatory confusion without impacting safety. The proposed language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration.

Section 172.102

This section details the meaning and requirements of the special provisions listed in Column (7) of the HMT. Special provision 13 is assigned to ''UN1005, Ammonia, anhydrous, 2.2'' and ''UN3318, Ammonia solution, *relative density less than 0.880 at 15 degrees C in water, with more than 50 percent ammonia,* 2.2.'' PHMSA proposes to clarify that these materials are subject to security plan requirements. In final rule HM–232F,[32] PHMSA specified this stance:

> While anhydrous ammonia is classed for domestic transportation as a Division 2.2 material, it does pose a significant inhalation hazard and, thus, should be subjected to safety and security requirements that address that hazard. [PHMSA] note[s] further that by requiring security plans for materials that meet the definition for a material poisonous by inhalation, all materials that exhibit PIH characteristics are covered even if they are not specifically identified in column 3 of the § 172.101 table as Division 2.3 or 6.1 materials.

However, as currently written, it is not clear that security plan requirements apply to these shipments. Therefore, to ensure safe transportation of these hazardous materials, to facilitate compliance with the HMR, and to provide additional clarity, PHMSA proposes to specify that security plan requirements apply to materials assigned to special provision 13. This does not affect the classification of UN1005 and UN3318, and they may continue to be placarded with the Division 2.2 placard for domestic transportation. Additionally, this proposed change does not mean that persons who transport UN1005 or UN3318 are subject to FMCSA safety permit requirements; rather, the change is an explicit reminder that security plan requirements apply to this material.

PHMSA also proposes to revise special provision B45. This special provision, which is currently assigned to ''UN1067, Dinitrogen tetroxide, 2.3 (5.1, 8),'' requires that, ''each tank must have a reclosing combination pressure relief device equipped with stainless steel or platinum rupture discs approved by the AAR Tank Car Committee.'' In conformance with other proposals throughout this NPRM regarding AAR TCC approval requirements, PHMSA proposes to replace the reference to AAR TCC approval with a reference to a tank car DCE approval.

Section 172.303

This section identifies that no person may offer for transportation or transport a package marked as a hazardous material, unless the package contains that hazardous material, its residue, or it is excepted in accordance with paragraph (b) of the section. PHMSA proposes to add paragraph (b)(4) to permit the continued display of the ''BIOHAZARD'', ''HOT'', or sour crude oil markings when the hazardous material is no longer present. Section 172.502(b)(2) currently authorizes this continued display, as the section specifies that the display of a ''BIOHAZARD'', ''HOT'', or sour crude oil marking is not a prohibited placard. However, because § 172.303 does not include a matching provision to allow for the continued display of the ''BIOHAZARD'', ''HOT'', or sour crude oil markings, there may be potential confusion. Therefore, to provide regulatory clarity and to reinforce the current authorization, PHMSA proposes the editorial revision in § 172.303 to mirror the allowance in § 172.502.

Section 172.328

Section 172.328 details cargo tank marking requirements. Paragraph (d) requires that after October 3, 2005, each on-vehicle manually activated remote shutoff device for closure of the internal self-closing stop valve must have ''Emergency Shutoff'' marked on the cargo tank.

PHMSA proposes to add a paragraph title of ''Emergency shutoff marking'' to paragraph (d) to clarify that the paragraph relates to emergency shutoff markings. The Office of **Federal Register** Document Drafting Handbook provides instruction that when one section paragraph has a heading, all of the other paragraphs in the section should as well. As the other paragraphs in § 172.328 have headings, this editorial proposal ensures conformity with the Office of **Federal Register** Drafting Document Handbook.

PHMSA proposes to further revise paragraph (d) editorially. First, PHMSA proposes to remove the compliance date of October 3, 2005, from paragraph (d). As this date has passed, there is no need for the compliance date to remain in the paragraph. PHMSA also proposes to add introductory language to this paragraph to specify that the emergency shutoff marking is only required for cargo tank motor vehicles subject to emergency remote shutoff device requirements under the HMR. This is not intended to add any new regulatory requirements; instead, it is added to clarify editorially the applicability of the paragraph.

Lastly, PHMSA proposes to require that the emergency shutoff marking requirement applies to both internal and external self-closing stop valves, instead of just internal self-closing stop valves. This proposal addresses a potential safety gap where an external self-closing stop valve is on the cargo tank, but it is not appropriately marked. Thus, both internal and external self-closing stop valves can be appropriately identified and activated during a hazardous material incident, which leads to an increase in safety.

Section 172.336

Section 172.336 outlines special provisions for the display of UN ID numbers. PHMSA proposes to revise the § 172.336(c) table, which provides scenarios where UN ID numbers are either not required or an exception applies. As discussed in ''Section II.D. Cargo Tank Marking for Petroleum Distillate Fuels,'' PHMSA proposes to add a sixth row to the table to authorize display of the UN ID number representing the petroleum distillate fuel with the lowest flash point that is

[32] 75 FR 10973 (Mar. 9, 2010).

transported in a cargo tank in different trips on the previous or current business day. However, due to different emergency response procedures, PHMSA also proposes that the exception is not applicable when the cargo tank transports gasoline and alcohol fuel blends consisting of more than 10% ethanol. This is consistent with the current requirements in the fifth row of the table. Specifically, PHMSA proposes that in this circumstance, the UN ID numbers ''3475'' or ''1987'' must also be displayed, as appropriate, and the cargo tank may only display ''3475'' or ''1987'' when the material is in the cargo tank. Therefore, if the liquid petroleum distillate fuel with the lowest flash point transported in the cargo tank in different trips on the previous or current business day is a gasoline and alcohol fuel blend consisting of more than 10% ethanol, and it is not being transported in the cargo tank, ''3475'' or ''1987'' may not be displayed on the cargo tank. In this scenario, the cargo tank should display either the UN ID number of the liquid petroleum distillate fuel with the next lowest flash point transported in different trips on the previous or current business day or the liquid petroleum distillate fuel that is being transported.

Lastly, PHMSA proposes to specify that the exception in the fifth row only applies to compartmented cargo tanks and compartmented tank cars. This will distinguish clearly the fifth and sixth row exceptions. The fifth row authorizes the display of the UN ID number of the petroleum distillate fuel with the lowest flash point when the cargo tank or tank car contains more than one petroleum distillate fuel. The fifth-row exception is only possible when the cargo tank or the tank car is compartmented (*i.e.,* it has multiple compartments each with a different petroleum distillate fuel). Therefore, PHMSA proposes to remove the term ''cargo tank'' to indicate clearly the exception only applies to ''compartmented cargo tanks or compartmented tank cars.''

Section 172.504

Section 172.504 prescribes the general requirements for placarding. Paragraph (b) authorizes the use of the ''DANGEROUS'' placard when transporting two or more categories of hazardous materials that require a different placard specified in table 2 of § 172.504(e). PHMSA proposes to prohibit the use of the ''DANGEROUS'' placard to describe multiple categories of hazardous materials being transported by vessel. PHMSA and USCG identified vessel operator confusion with the display of the ''DANGEROUS'' placard because the ''DANGEROUS'' placard is not authorized in the IMDG Code. It is advantageous to harmonize the HMR with the IMDG Code to promote efficient vessel transportation by removing the authorization to use this placard. Furthermore, the ''DANGEROUS'' placard may not provide adequate information on the hazardous materials inside the container for emergency response onboard vessels. PHMSA and USCG experience is that it is also very rare for the ''DANGEROUS'' placard to be displayed on a freight container for vessel transportation. Therefore, PHMSA proposes to add this limitation in a new paragraph (b)(2), while also moving the existing usage limitation for the ''DANGEROUS'' placard (over 2,205 lbs. aggregate gross weight or more of one category of material is loaded at one loading facility) to a new paragraph (b)(1). Please note that ''DANGEROUS'' placards may continue to be appropriately used for highway or rail transportation, when applicable, prior to, or after, the portion of transportation by vessel.

Section 172.516

Section 172.516 details the visibility and display of placards, including paragraph (d), which specifies that the recommended placard holder specifications are set forth in Appendix C. PHMSA proposes to revise the size of the recommended placard holder dimensions in Appendix C to part 172. As detailed in ''Section IV. Section-by-Section Review; Part 172; Appendix C to Part 172,'' the recommended placard holder that is currently authorized in the HMR may continue to be used, even if the revised placard holder in Appendix C to part 172 is adopted in a final rule. However, to ensure that there is no confusion with this allowance, PHMSA proposes to revise § 172.516(d) to add a reference to the placard holder authorized in Appendix C prior to a final rule effective date as an authorized placard holder.

Section 172.704

Section 172.704 details HMR training requirements. Paragraph (a)(2) includes requirements for function-specific training. PHMSA proposes to add paragraph (a)(2)(iii) to reference § 177.816 for highway transportation function-specific training. This new paragraph will help to provide regulatory clarity and ensure those persons transporting hazardous materials by highway meet the function-specific training in § 177.816, without adding any additional requirements.

Section 172.704(e)(1) excepts a hazmat employee from the paragraph (a)(3) safety training when the hazmat employee repairs, modifies, reconditions, or tests packagings, as qualified for use in the transportation of hazardous materials, and who does not perform any other function in the HMR. PHMSA proposes to revise paragraph (e)(1) to add an exception from the security awareness training requirement in paragraph (a)(4). Final rule HM–126F,[33] added training requirements to the HMR, including the exception from safety awareness training in paragraph (e)(1). Security awareness training was not included in the exception because the requirement for security awareness training was not added to the HMR until RSPA published final rule HM–232.[34] In HM–232, RSPA provided the following reasoning for the need of security awareness training:

> Because many hazardous materials transported in commerce may potentially be used as weapons of mass destruction or weapons of convenience, it is critical to the assurance of public safety that training for persons who offer and transport hazardous materials in commerce include a security component.

While HM–232 provides a need for security awareness training, RSPA did not comment on whether it intended to exclude security awareness training from the exception in paragraph (e)(1). PHMSA affirms that security awareness training is essential to ensure that hazardous materials are transported in commerce safely. However, upon review, PHMSA acknowledges that the burden of security awareness training imposed on hazmat employees who only manufacture, repair, modify, recondition, or test packagings, and do not perform any other function subject to the HMR, may not present the same security benefit as for those who directly offer or transport hazardous materials. PHMSA expects that the packagings a hazmat employee manufactures, repairs, modifies, reconditions, or tests are empty and free of hazardous materials, and we seek comment on this expectation. As described in HM–232, the creation of security awareness training was related to concerns about hazardous materials transported in commerce being used as weapons of mass destruction or weapons of convenience. A hazmat employee whose sole hazmat function is qualifying a packaging would not interact with a hazardous material that could be used as a weapon; therefore, PHMSA does not expect a reduction in

[33] 20 FR 20944 (May 15, 1992).

[34] 68 FR 14510 (Mar. 25, 2003).

security by providing these employees an exception from security awareness training. Therefore, PHMSA proposes to add the security awareness training of paragraph (a)(4) to the paragraph (e)(1) exception for persons performing only repairs, modifications, reconditioning, or testing of packagings and no other functions subject to the HMR.

Additionally, PHMSA proposes to expand the eligibility of hazmat employees excepted from safety and security training to include package ''manufacturers.'' In review of paragraph (e)(1), it was determined that package manufacturers were unintentionally excluded from this exception and including package manufacturers to this exception ensures the paragraph conforms to guidance previously issued by PHMSA.[35] Therefore, PHMSA proposes to include package ''manufacturers'' among the list of hazmat employees excepted from safety and, as proposed, security awareness training. Although these changes broaden the population of persons excepted from safety and security awareness training, PHMSA expects the safety and security of hazardous materials transportation will be maintained because of this training's primary focus on persons who offer or transport hazardous materials.

Section 172.820

Section 172.820 outlines additional security plan requirements for certain hazardous materials transported by rail. The requirements for a rail carrier to identify and analyze practicable alternative routes are specified in paragraph (d). As currently written, there is no instruction provided for a situation where no alternative routes exist. Therefore, PHMSA proposes to revise paragraph (d) to provide an exception from the requirement to conduct an alternative route analysis, when no practicable alternative routes exist, including consideration of interchange agreements. The rail carrier must describe, in writing, the remediation or mitigation measures to be implemented, if any, on the primary route in conformance with § 172.820(d)(1)(iii) and certify that an alternative route does not exist for a given primary route. For example, a shortline railroad with only one possible route to move material subject to § 172.820 is not required to analyze alternative routes owned by other railroads. HMIWG discussed the proposed paragraph (d)(3) at its August 16–17, 2016, meeting. The proposed language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA expects safety will be maintained as a result of this proposal, because it is not possible to conduct an alternate route analysis where no alternate route(s) exist. In this NPRM, we propose a minor revision to the proposed text of (d)(3) to indicate that the exception applies to the requirements of (d)(1) and (d)(2).

Appendix C to Part 172

Appendix C to part 172 specifies the dimensions for a recommended placard holder. PHMSA proposes to revise the recommended placard holder drawing from a one-side minimum dimension of 273 mm (10 ¾ inch) to 250 mm (9.84 inch). This revised dimension meets the current minimum placard size in § 172.519(c). In final rule HM–218F,[36] PHMSA made miscellaneous amendments to update and clarify certain regulatory requirements, including amending the placard dimensions in § 172.519(c) to harmonize with international standards. Specifically, HM–218F revised the dimensions of a placard from at least 273 mm (10.8 inches) on each side to the current dimension of at least 250 mm (9.84 inches) on each side. However, when the revision was made to § 172.519(c), an accompanying revision to the recommended placard holder dimensions in Appendix C to part 172 was not made. This has resulted in placard holders that may not correctly fit placards thereby, creating the potential for certain communication elements of the placard to be obscured. To prevent this potentially unsafe and noncompliant situation, PHMSA proposes to reduce the dimensions of the recommended placard holder with revised dimensions that are consistent with the current minimum placard dimension of 250 mm (9.84 inches) on each side, because hazard communication information may be obscured. Appendix C provides only recommended dimensions. A larger version of a placard holder suitable for larger placards may continue to be used since the side dimensions for the placards and placard holders are a minimum specification.

Part 173

Section 173.31

Section 173.31 prescribes the requirements for use of tank cars. Paragraph (a)(2) specifies that tank cars and appurtenances may be used for the transportation of any commodity for which they are authorized and as specified on the certificate of construction. PHMSA proposes to revise paragraph (a)(2) in conformance with the proposal to replace AAR TCC approval with tank car DCE approval. Specifically, PHMSA proposes to indicate that tank cars and appurtenances may be used for the transportation of the commodity specified on the DAC, while also providing a one-year transition period during which certificates of construction may still be issued. Existing tank cars approved for use by the AAR TCC may continue in use for the rest of their authorized life pursuant to their existing AAR Form 4–2 certificate of construction, subject to periodic qualification as required by part 180 subpart F. Additionally, PHMSA proposes to replace the reference to the AAR TCC approval with approval by a tank car DCE, consistent with the other proposed changes.

Section 173.31(d) outlines the requirements for examination of a tank car prior to shipping. Review of incident data involving non-accident hazardous materials releases from tank cars indicates that most releases occur because of improperly secured closures on tank cars. Additionally, the majority of those failures occur at the manway cover due to a failure to secure the manway in accordance with the equipment owner and gasket manufacturer closure instructions, including the bolt securement sequences, tools, and torque specifications. Currently, there is no requirement in the HMR that offerors of tank cars containing hazardous materials develop and implement closure procedures that are consistent with the industry standards and Original Equipment Manufacturer (OEM) recommendations. However, the HMR does require manufacturers of other packagings, namely those specified in part 178, to forward closure instructions to each person to which the package is transferred, and that each person who closes those packagings must do so in accordance with the manufacturer's closure instructions.

Therefore, in the interest of improving safety and consistency with requirements for closures for part 178 packaging types, PHMSA proposes several amendments to § 173.31(d). For clarity, PHMSA proposes to amend the format of paragraph (d) by revising the paragraph title to read ''pre-transportation closure, securement, and examination of tank cars'' and providing each paragraph a title. PHMSA proposes

[35] See Letter of Interpretation Reference No. 05–0064: *https://www.phmsa.dot.gov/regulations/title49/interp/05-0064.*

[36] 76 FR 43510 (Jul. 20, 2011).

additional substantive amendments by adding introductory text on the expectations of offerors prior to transportation, and by adding regulatory text to require a closure and securement procedure including a two-year periodic review of the procedure. As proposed, offerors must develop and maintain a written procedure for closing and securing all tank car openings. PHMSA and FRA expect that offerors will use available best practices and guidance from packaging and component manufactures in development of these procedures. These proposed changes to § 173.31(d) are designed to ensure that minimum standards for closures and their securement on tank cars are implemented to prevent releases of hazardous material. Rail carriers, rail hazmat shippers, equipment owners, and manufacturers all have a vested interest in ensuring tank cars are routinely operated and closed in a reliable and repeatable manner that is consistent with industry standards and OEM recommendations. PHMSA and FRA expect that this regulatory change will result in a net benefit to safety by ensuring proper securement of tank car closures, thus reducing the number of hazardous material releases by rail. Reduction in releases will have a positive impact on the environment, including potential reductions in greenhouse gas emissions.

Section 173.31(g) outlines the requirements for tank car loading and unloading. The proposed changes to § 173.31(g) are intended to clarify the requirements for tank car unloading by adopting language from long-standing PHMSA letters of interpretation.[37] These letters of interpretation explain that the intent of paragraph (g) is to ensure the entry to a track where a tank car is being loaded or unloaded is secured. The proposed revisions to § 173.31(g) clarify that the mechanism used to satisfy securement should be under the direct control of the loading or unloading operator and locked in place so that it can only be removed by the employee responsible for the product transfer. The mechanism should also be capable of stopping or diverting incoming rail equipment to prevent contact with the tank car being offloaded (*e.g.,* lined and locked switch or derail). The example of bumper blocks in the current requirements of paragraph (g)(1) are proposed to be removed because, as discussed at HMIWG meeting, the majority of companies subject to this requirement accomplish compliance with the use of a derail or a switch. Additionally, PHMSA and FRA have concerns that some bumper blocks do not satisfy the requirements of the paragraph. Bumper blocks may continue to be used to meet the requirements of paragraph (g) provided they provide an equivalent level of security to lining and locking switches or using derails, but PHMSA proposes not to specifically call out bumper blocks as an option in paragraph (g). Lastly, in new paragraphs (g)(1)(i)(A)–(D), PHMSA proposes to clarify the performance of track securement operations in association with loading or unloading of tank cars to account for circumstances in which the securement may be temporarily removed for necessary intra-plant repositioning of rail cars. The proposed requirements in (g)(1)(i)(A)–(D) align with current industry practice and are intended to protect railroad personnel and the tank car being loaded or unloaded from interaction with other rail cars undergoing switching in intra-plant operations that would otherwise be delayed or obstructed without the possibility of temporarily removing measures for securement of the track. The final recommended language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration.

[37] See PHMSA Letters of Interpretation Gale to Ross, May 31, 2006 (Reference No. 06–0058: *https://www.phmsa.dot.gov/regulations/title49/interp/06-0058*) and Foster to Rodgers, October 11, 2018 (Reference No. 18–0032: *https://www.phmsa.dot.gov/regulations/title49/interp/18-0032*).

Section 173.150

Section 173.150 details exceptions for Class 3 (flammable and combustible liquids) hazardous materials. Paragraph (f)(3) provides an exception for combustible liquids transported in bulk packaging or combustible liquids meeting the definition of a hazardous substance, hazardous waste, or a marine pollutant. In § 173.150(f)(3)(viii), PHMSA proposes to add a reference to § 177.837(c). This is a conforming amendment to the proposed requirement in § 177.837(c) to require bonding and grounding for the transfer of lading for combustible liquids or flammable liquids reclassified as combustible liquids in cargo tanks. PHMSA expects that for the safe transportation of combustible liquids in cargo tanks, bonding and grounding requirements should apply when taking the exception in § 173.150(f). See ''Section IV. Section-by-Section Review; Part 177; Section 177.837'' for additional discussion.

Section 173.159

Section 173.159 details packaging requirements and exceptions for the transportation of wet batteries (*i.e.,* electric storage batteries, commonly of the rechargeable type, that contain a liquid electrolyte component that is corrosive). Paragraph (e) specifies that the transportation of wet batteries by highway and rail is excepted from the requirements of HMR when transported in accordance with conditions outlined in this paragraph. Over the past 10 years, over 700 incidents involving the transportation of wet batteries have been reported due to improper preparation of batteries for transportation. Not all of the referenced incidents are associated with the transportation of wet batteries in accordance with paragraph (e), but incidents involving the transportation of wet batteries under other provisions are still relevant to the transportation of wet batteries under paragraph (e) because they show what may occur when wet batteries are not properly prepared for transportation.

Many of these incidents involved a release of corrosive battery fluid from wet batteries because of load shifting or falling over while in transportation. Through inspections, PHMSA identified that improper loading, securement, and transportation of wet batteries likely caused a number of these incidents. Therefore, PHMSA proposes to add more specificity in the provisions of § 173.159(e) to clarify the expectations for load securement of the batteries shipped under this provision and ensure the safe transportation of wet batteries. This increased clarification will enhance the safety of transport of wet batteries and reduce the number of incidents resulting from improper load securement and transportation. In addition, PHMSA notes that it is the responsibility of all persons conducting transportation functions, including loading and unloading, to ensure proper compliance with § 173.159(e), and if there is a violation, PHMSA, along with any respective modal administration, will attempt to identify and bring any enforcement proceeding against the person who did not comply with § 173.159(e).

Paragraph (e)(2) currently requires that wet batteries be loaded or braced to prevent damage and short circuits in transit. This provision has been in the HMR since its inception, as originally codified in 1956.[38] Although load securement is not specifically mentioned in paragraph (e)(2), securing hazardous materials against shifting under normal transportation conditions is a basic hazardous materials transportation safety requirement. For transportation by highway and rail,

[38] 21 FR 4432 (June 23, 1956).

packages containing hazardous materials are required to be secured against shifting while in transportation in accordance with §§ 177.834 and 174.55, respectively. This requirement protects hazardous materials, including wet batteries, from falling over or spilling under normal transportation conditions, preventing damage and short circuits during transportation. After evaluation of the aforementioned incidents involving wet batteries, PHMSA proposes to amend the language of § 173.159(e)(2) to include securement of the batteries to enhance the safe transportation of wet batteries shipped under this exception. Specifically, PHMSA proposes to clarify that loading or bracing of wet batteries includes securing wet batteries against shifting while in transit. In addition, and similar to §§ 177.834 and 174.55, PHMSA proposes to indicate that securement against shifting includes relative motion between packages, under conditions normally incident to transportation. PHMSA expects this language will help prevent damage to batteries while in transportation and possible release of their liquid contents. While ''method of securement'' is not defined in the HMR, PHMSA has issued Letters of Interpretation regarding securement methods. For example, in Letter of Interpretation Ref. No. 19–0039,[39] PHMSA specifies that various methods for securement include tie-downs, using dunnage or other cargo, shoring bars, jack bars, or toe-boards. Furthermore, Letter of Interpretation Ref. No. 11–0198 [40] includes banding in this list. This is not an exclusive list; instead, these demonstrate potential methods for securement to prevent shifting, including relative motion between packages. In addition, the use of one of these methods is only satisfactory when there is securement against shifting, including relative motion, under conditions normally incident to transportation. Lastly, PHMSA notes that for highway transportation, the Federal Motor Carrier Safety Regulations (FMCSR; 49 CFR parts 350–399), specifically part 393 subpart I—Protection Against Shifting and Falling Cargo—details requirements for the prevention of loss and shifting of load.

PHMSA also identified instances where persons offer for transportation or transport wet batteries as unregulated shipments, even though they are still subject to the provisions of the HMR under § 173.159(e). While these shipments are not subject to many of the HMR provisions, including § 172.704 training requirements, a person who is complying with § 173.159(e) must still know and understand the applicable requirements in order to safely transport wet batteries. This applies to both shippers and carriers, including those persons who load, unload, or transport wet batteries in accordance with § 173.159(e). However, because persons engaged in this operation have been shown not to be aware of the specific provisions, PHMSA proposes to revise paragraph (e) to specify that ''the offeror must inform persons loading the batteries and the operator of the vehicle transporting batteries of the requirements of this paragraph.'' PHMSA expects that this will enhance the safe transportation of wet batteries under § 173.159(e) and add only minimal burden because, as previously mentioned, being aware of the requirements of § 173.159(e) is necessary for a person to properly apply the exception. This proposed text reinforces that a person must be aware of the requirements to properly perform said requirements. In order to accommodate the proposed language, we propose to redesignate the language currently located in paragraph (e)(5), requiring compliance with incident reporting, to new paragraph (e)(6), and moving the conjunction ''and'' to connect (e)(5) and (e)(6).

Sections 173.241, 173.242, and 173.247

Sections 173.241, 173.242, and 173.247 are bulk packaging authorization sections for low hazard, medium hazard, and elevated temperature liquid and solid materials, respectively. Each section authorizes AAR specification tank cars for the transportation of hazardous materials. Section 173.241 authorizes AAR Class 203W, 206W, and 211W tank cars, § 173.242 authorizes AAR Class 206W tank cars, and § 173.247 authorizes AAR Class 203W, 206W, and 211W tank cars. However, the specifications for these packages are not found in the HMR; they are found in Chapter 3 of the AAR Specifications for Tank Cars. In order to ensure that no changes are made to the construction specifications of these hazmat packagings without PHMSA and FRA review, PHMSA proposes to incorporate by reference the 2014 edition of Chapter 3 of the AAR Specifications for Tank Cars into each section. AAR Class 203W, 206W and 211W tank cars currently in service may remain in use, provided they continue to meet the specification to which they were constructed. PHMSA proposes a transition period of one year from the effective date of the final rule for compliance with the 2014 edition of the AAR Specifications for Tank Cars for new-build AAR specification 203W, 206W, and 211W tank cars.

Section 173.241

See ''Section IV. Section-by-Section Review; Part 173; Sections 173.241, 173.242, and 173.247'' for details on the revisions proposed to this section.

Section 173.242

See ''Section IV. Section-by-Section Review; Part 173; Sections 173.241, 173.242, and 173.247'' for details on the revisions proposed to this section.

Section 173.247

See ''Section IV. Section-by-Section Review; Part 173; Sections 173.241, 173.242, and 173.247'' for details on the revisions proposed to this section.

Section 173.314

Section 173.314 specifies packaging for compressed gases transported by a tank car or a multi-unit tank car. Paragraph (b)(4) currently indicates that the term ''approved'' for purposes of the section means approval by the AAR TCC. PHMSA proposes to remove and reserve paragraph (b)(4). The language in (b)(4) is an outdated holdover from an earlier regulatory structure, since tank car specification requirements are now found in Part 179, rather than Part 173. Therefore, we propose to remove and reserve (b)(4), consistent with other proposed changes.

Section 173.315

Section 173.315 describes the requirements for the transportation of compressed gases in cargo tanks and portable tanks. Paragraph (h) specifies gauging device requirements for cargo tanks and portable tanks. PHMSA proposes a minor editorial amendment in paragraph (h) to reference paragraph (e) for a tank filled by weight. This proposed change helps to ensure consistent application of the requirement and provides additional clarity which will enhance safety.

Paragraph (i) provides cargo tank and portable tank requirements for pressure relief devices, with paragraph (i)(13) detailing the specifications for safety relief valves on chlorine cargo tanks. PHMSA proposes to revise § 173.315(i)(13) to replace the reference to specific PRD drawings with a general reference to CI Pamphlet 49 for authorized safety relief valves. This proposal allows the use of the Midland PRD in addition to the Crosby PRD on

[39] See Letter of Interpretation Reference No. 19–0039: *https://www.phmsa.dot.gov/regulations/title49/interp/19-0039.*

[40] See Letter of Interpretation Reference No. 11–0198: *https://www.phmsa.dot.gov/regulations/title49/interp/11-0198.*

cargo tanks transporting inhalation hazards to provide additional regulatory flexibility without reducing safety. See ''Section II.E. P–1712'' or ''Section IV. Section-by-Section Review; Part 171; Section 171.7'' for further discussion on this proposed change.

Paragraph (j) details packaging requirements for consumer storage containers used for liquefied petroleum gas. Paragraph (j)(1) provides requirements for storage containers for liquefied petroleum gas or propane charged to five percent of their capacity or less and intended for permanent installation on consumer premises. PHMSA proposes to remove the reference to propane as an editorial amendment. Propane is a type of liquefied petroleum gas and therefore, a specific reference to propane is unnecessary and redundant. Furthermore, as paragraphs (j)(2) and (3) do not include a reference to propane (only refers to liquefied petroleum gas) a reader could mistakenly assume that propane is not eligible for these storage container requirement sections, which is not the case since propane is a liquefied petroleum gas. Therefore, PHMSA expects this proposed amendment will clarify the regulatory applicability of paragraph (j).

Paragraph (m) details the general requirements for cargo tanks used exclusively in husbandry service that are commonly known as nurse tanks. On behalf of FMCSA, the Iowa State University is conducting a multi-year research project related to the occurrence and potential methods of reducing anhydrous ammonia (NH_3) nurse tank failures.[41] The December 2013, final report of Phase II of the project titled, ''Testing and Recommended Practices to Improve Nurse Tank Safety,'' recommended that post-weld heat treatment (annealing) should be performed on all new nurse tanks as a part of the manufacturing process to reduce the occurrence of stress corrosion cracking failure.[42] Consistent with this recommendation and to ensure safe transportation of hazardous materials in nurse tanks, PHMSA proposes to add paragraph (m)(1)(viii) requiring that all nurse tanks manufactured 90 days after the effective date of a final rule be stress relieved through full post-weld heat treatment. In addition, this proposal addresses, in part, NTSB Safety Recommendation H–04–023 that was issued as a result of an incident involving the release of anhydrous ammonia because of a failed nurse tank.[43] FMCSA notes that the two major manufacturers of nurse tanks are already performing full post-weld heat treatment on their cargo tanks, thus this new requirement will primarily provide PHMSA oversight by including it as a condition to allow the use of a non-DOT specification cargo tank for transportation of anhydrous ammonia. This proposed requirement ensures that this additional safety measure will be implemented by both current and new nurse tank manufacturers.

Paragraph (n)(1) details the required emergency discharge control equipment for cargo tank motor vehicles in liquefied compressed gas service. During FMCSA industry workshops, stakeholders have noted that this table is confusing. Therefore, PHMSA proposes to reformat information in the table in paragraph (n)(1) for ease of understanding. This includes separating out current regulatory requirements unique to certain scenarios and adding an additional column to specify requirements when there are obstructed view deliveries under § 177.840(p). PHMSA does not intend to make any substantive changes to existing requirements in this table, however we are adding information from § 177.840(p) into the table to increase usability. PHMSA invites comments on the usability of the reformatted table. We believe reformatting the table will reduce confusion, which will lead to increased compliance and therefore an improved level of safety.

Section 173.320

This section details exceptions for the transportation of cryogenic liquids. Subject to certain requirements, paragraph (a) provides an exception from the requirements of the HMR for atmospheric gases and helium, cryogenic liquid in Dewar flasks, insulated cylinders, insulated portable tanks, insulated cargo tanks, and insulated tank cars, transported by motor vehicle or railcar. Paragraph (b) provides an additional exception for certain atmospheric gases and helium. PHMSA proposes to revise paragraph (a) for ease of understanding, with no substantive impact to the current provisions of the paragraph. In addition to editorial amendments, PHMSA proposes to revise the packaging type of an insulated cargo tank to a ''cargo tank motor vehicle,'' as this is more appropriate terminology describing the completed transportation package. This amendment will increase the clarity of the regulations, leading to greater compliance and increasing safety.

Specifically, PHMSA proposes to remove the phrase ''atmospheric gases and helium'' in paragraphs (a) and (b). Furthermore, PHMSA proposes to consistently reference ''cryogenic liquids authorized to use this section by Column 8(A) of the § 172.101 Hazardous Materials Table of this subchapter'' in both paragraphs (a) and (b). This proposed change also makes the section more consistent with the HMR, removing any ambiguity between whether a material is an atmospheric gas and if it is afforded an exception in this section. PHMSA intends that this proposed change be editorial and not make any substantive revisions to the current regulatory requirements. This increased clarity will lead to less confusion and thus, enhance safety. The cryogenic liquids assigned ''320'' in Column 8(A) of the § 172.101 Hazardous Materials Table are the same as the materials defined as ''atmospheric gases'' in § 171.8, except that ''320'' is also assigned to two ''not otherwise specified'' (''n.o.s'') entries, UN3158 and UN3311. PHMSA seeks comment on this change, and whether there are materials classified as ''UN3158 Gas, refrigerated liquid, n.o.s. 2.2'' or ''UN3311 Gas, refrigerated liquid, oxidizing, n.o.s. 2.2 (5.1)'' that are composed of a gas or gas mixture other than air, nitrogen, oxygen, argon, krypton, neon, xenon, or helium.

Part 174

Section 174.9

Section 174.9 identifies inspection requirements for rail cars at locations where a hazardous material is accepted for transportation or placed in a train. Paragraph (a) includes specifics on carrier inspection requirements. PHMSA proposes an editorial amendment in paragraph (a) to indicate more clearly that the inspections performed in § 174.9 are in conjunction with those required in 49 CFR parts 215 and 232 for identification of defective freight car components and brake systems, respectively. Currently, the text refers readers to parts 215 and 232 ''of this title.'' PHMSA believes it will be clearer to the reader if we replace ''this title'' with ''49 CFR'' parts 215 and 232.

Furthermore, the current language in § 174.9 does not specifically address situations where a train is seen departing a location with readily apparent improper hazard communication, unapplied closures, or leaking hazardous materials. In order to address this situation, PHMSA proposes to add paragraph (e) to specify that in

[41] *https://www.fmcsa.dot.gov/regulations/hazardous-materials/cargo-tank-safety.*

[42] The report is available at: *https://rosap.ntl.bts.gov/view/dot/163.*

[43] *https://data.ntsb.gov/carol-main-public/basic-search.*

the event of the observation of a train with readily apparent improper hazard communication, unapplied closures, or leaking hazardous materials, it will be presumed that the rail car was not inspected properly by the carrier. During the June 8–9, 2016, HMIWG RSAC meeting, PHMSA noted that hazard communication includes communication such as placards, markings, and stenciling. The final recommended language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA expects the addition of paragraph (e) will increase compliance with the HMR's existing closure securement and hazard communication requirements, and therefore increase safety.

Section 174.14

Section 174.14 requires that hazardous material shipments be expedited to within 48 hours upon acceptance at the originating location, commonly known as the ''48-hour rule.'' The purpose of this requirement is to ensure that rail cars carrying hazardous materials are not held for long periods of time, hazardous material transportation is moving forward continuously, and rail cars that are being delayed are not being used for storage purposes. Currently, § 174.14 does not allow any exceptions to the 48-hour rule when the receiving facility is not capable of receiving the shipment. During the August 27–28, 2013, FRA public meeting and the June 8–9, 2016, HMIWG meeting, it was noted that FRA uses enforcement discretion with regard to the 48-hour rule in certain cases, such as delays due to inadequate space in a consignee facility or situations where the shipment contains only the residue of a hazardous material, to avoid unnecessary shuttling of hazmat cars to and from local railyards to comply with the regulation.

In order to align the HMR with FRA's enforcement discretion practices, PHMSA proposes new paragraphs (a)(1) through (3) to add exceptions for specific scenarios when circumstances preclude delivery to the consignee destination or when the shipment contains only the residue of a hazardous material. In addition, PHMSA proposes to revise paragraph (a) to add a recordkeeping requirement for the rail carrier to document the reason for the delay. This record can be in a paper or electronic form. PHMSA and FRA note that it is not the intention to require a rail carrier to create a new recordkeeping system if one meeting the proposed requirements is already in place. PHMSA and FRA also propose an editorial revision to remove ''transfer stations'' from paragraph (a), as this is an obsolete reference. The final recommended language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA expects the formalization of existing FRA enforcement discretion related to the 48-hour rule will maintain the current level of safety of rail transportation while affording rail carriers greater flexibility within the scope of the expedited movement.

Note that in the revised language of § 174.14 offered by the RSAC to PHMSA and FRA for consideration, a fourth exception was included that would have created an exception to the 48-hour rule for shipments delivered to the final destination on a shipping paper. In accordance with § 171.1(c)(4)(i)(B), rail cars delivered to the final destination marked on the shipping paper, but on track that is not a ''private track or siding,'' are still in transportation. The RSAC language offered to PHMSA and FRA for consideration in paragraph (a)(4) would then except shipments delivered to non-private track from expedited movement, and they could remain on the track, ''in transportation,'' indefinitely. It was not FRA or PHMSA's intent to authorize such activity in the HMR. Therefore, the RSAC-approved fourth option (*i.e.,* a paragraph (a)(4)) is not being proposed. Shipments of hazardous material that have been delivered to their final destination on a private track or siding are not ''in transportation,'' (*see* § 171.1) and therefore are not subject to the 48-hour rule.

Section 174.16

Section 174.16 specifies requirements for delivery of certain hazardous materials at agency stations. In current operations, rail cars carrying hazardous materials covered under § 174.16 no longer deliver these types of materials to agency stations, which no longer exist. As was noted by AAR at the August 27–28, 2013, FRA public meeting, hazardous materials currently covered under § 174.16 are unloaded at the rail car facility where they are delivered. If the hazardous material is not picked up by the consignee or the shipment is rejected, the delivering carrier obtains disposition instructions from the offeror of the shipment. To address the change in rail carrier operations and in an effort to remove language that is no longer applicable to current operations, PHMSA proposes to remove and reserve this section. PHMSA notes that any additional transportation of these materials must comply with all applicable regulations. The decision to remove and reserve this section was approved by consensus vote at the May 25, 2017 RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA expects that removing this obsolete provision will increase the clarity of the HMR for carriers dealing with shipments rejected or not picked up.

Section 174.20

Section 174.20 outlines the allowance for a rail carrier to impose local or carrier restrictions for hazardous materials when acceptance, transportation, or delivery is unusually hazardous. At the August 27–28, 2013 FRA public meeting, AAR proposed that paragraph (a) be deleted as it was redundant and covered in the language from paragraph (b). However, following further review, AAR proposed at the June 8–9, 2016 RSAC meeting that the entire section be deleted as the requirements should be left up to individual carriers, and that reporting to the AAR's Bureau of Explosives is not necessary. PHMSA agrees and proposes to remove and reserve the section in its entirety. The decision to remove and reserve this section was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA expects removing this section will not adversely impact safety because rail carriers will still be able to make a determination that local conditions make the acceptance, transportation, or delivery of hazardous materials unusually hazardous.

Section 174.24

This section details requirements for the acceptance of shipping papers by a carrier and shipping paper retention requirements. Paragraph (b) specifies that a shipping paper must be made available to an authorized official of a Federal, State, or local government agency at a reasonable time and location. However, there is no further specificity on what is meant by a ''reasonable time.'' In an effort to clarify the requirements, PHMSA proposes to revise paragraph (b) and indicate that the shipping paper must be provided at reasonable times and locations, ''but no later than the close of business the following business day from the time of the request in non-emergency circumstances.'' The proposed language still mandates that the documentation be made available to inspectors at a ''reasonable time and location,'' so when the information is readily available at the time that an inspector requests it, PHMSA and FRA expect that

it shall be provided at that time, as it has been historically. For non-emergency document requests that are for past shipments (*e.g.,* shipments made weeks/months ago), or for all shipments made by a particular shipper or in a particular car, the RSAC reached consensus that a reasonable deadline would be close of business the following business day.

During the May 5 and June 8–9, 2016, HMIWG meetings, there was in-depth discussion to determine the most appropriate timeframe that a carrier would be able to provide the shipping paper information in non-emergency situations. One business day was proposed as an alternate to a much shorter time, such as 30 minutes. One business day also addresses the needs of railroads that only operate Monday through Friday. As discussed, if a request for a shipping paper is made on Friday afternoon, the carrier has until the close of business on Monday to provide the shipping paper. PHMSA considers close of business to be 5:00 p.m. local time for the office of the authorized official of a Federal, State or local government agency requesting the shipping paper. PHMSA seeks public comment if this is a reasonable meaning of ''close of business.'' During HMIWG meetings, it was noted that this allowance is the longest acceptable amount of time to provide a shipping paper in a non-emergency situation, and the information might be available much sooner. Furthermore, it was discussed that this allowance is for non-emergency situations, where an emergency is defined as an event when an emergency response telephone number, as specified in § 172.604, is contacted. The final recommended language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration.

Additionally, in the first sentence of paragraph (b), as approved by RSAC and offered to PHMSA and FRA for consideration, it was proposed to replace ''person'' with ''carrier.'' PHMSA and FRA expect that such a revision could create unnecessary confusion in situations where a third party has been contracted to take on carrier functions (*e.g.,* maintaining shipping papers). Therefore, for clarity and to maintain alignment with other modal shipping paper retention sections, PHMSA will maintain the HMR's current applicability of the paragraph (b) retention requirements to each ''person'' who receives a shipping paper required by this section. PHMSA expects the proposed revision to § 174.24 will improve safety oversight by allowing authorized governmental representatives to access historical shipping paper information in a timelier manner during inspections and investigations.

Please note that this standard for reasonable time and place—close of business the following business day—is applicable specifically to review of historic shipping paper information in non-emergency rail transportation scenarios after transportation has ended. In particular, provision of shipping papers during transportation (*e.g.,* container inspections in port areas) is one example of a scenario where the following business day is generally too long a time period to meet the needs of inspectors and prevent unnecessary delays. See ''Section IV. Section-by-Section Review; Part 171; Section 171.22'' for further discussion of shipping paper accessibility in port areas.

Section 174.50

Section 174.50 prescribes requirements for nonconforming or leaking packages. This section specifies that non-bulk packages may not be forwarded unless they are repaired, reconditioned, or overpacked in appropriate salvage packaging. For bulk packages, an OTMA is required to authorize movement for a non-conforming or leaking package, unless movement is necessary to reduce or eliminate an immediate safety risk. PHMSA proposes to revise § 174.50 in order to identify more clearly the applicability and the exceptions regarding obtaining an OTMA from FRA.

To evaluate the proposed revisions to § 174.50 and consider harmonization and reciprocity with Transport Canada, HMIWG established an OTMA Task Force that included FRA, PHMSA, RSI, AAR, CI, TFI, and the American Petroleum Institute (API). In addition to evaluating § 174.50, the OTMA Task Force worked to develop the Hazardous Material Guidance (HMG) Document HMG–127 (Revision 5). Following multiple meetings, the OTMA Task Force voted to accept HMG–127 and the proposed language in § 174.50. The proposed text of HMG–127 (Revision 5) is included in the docket for review along with this NPRM.[44] The proposed regulatory text addresses administrative topics, while HMG–127 specifies further guidance on obtaining an OTMA. HMG–127 discusses how to apply for an OTMA, categories and conditions for choosing the correct category of an OTMA, when a root cause analysis is required as a condition of an OTMA, and what information should be included in a root cause analysis. Note, however, that HMIWG did not reach consensus on proposed text in § 174.50(d)(2)(v) when it was put forward to a vote. Recommended language for this section was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA proposes the following revisions to § 174.50:

- Discuss in paragraph (a) the general requirements for non-conforming and leaking packages, including non-bulk packages;
- List scenarios in paragraph (b) where an OTMA issued by the Associate Administrator for Safety, FRA is not required to move a non-conforming or leaking bulk package;
- Discuss in paragraph (c) the approval process for an OTMA;
- List in paragraph (d) the marking, notification, recordkeeping, routing, and root cause analysis requirements for OTMA grantees; and
- Clarify in paragraph (e) the responsibility for compliance with OTMA requirements and consequences for non-compliance.

The exceptions proposed in paragraph (b)(2) and (3) codify long-standing FRA policy. Non-compliant rail cars that are clean and contain no hazardous materials residue, addressed in paragraph (b)(2), do not pose a risk of hazardous materials release. The intent of the proposed exception in paragraph (b)(2) is to expedite the movement of these cars to a facility at which repairs can be conducted. These are typically DOT–111 tank cars that are not carrying hazmat and have been cleaned. Currently, FRA receives approximately 730 OTMAs per year for clean cars. The exception proposed in paragraph (b)(3) for rail cars discovered to be overloaded by a minor amount is intended to address known weigh-in-motion and static scale error tolerances, and additionally align with Transport Canada standards. The exceptions proposed in paragraphs (b)(1), for movement necessary to reduce or eliminate an immediate threat of harm to human health or the environment, and (b)(4), for rail cars moving in accordance with a Transport Canada temporary certificate, exist in the currently effective 174.50, and we propose to move them to paragraphs (b)(1) and (b)(4), respectively, for clarity.

Additionally, throughout § 174.50, PHMSA proposes to replace the acronym ''OTMA'' with ''One-Time Movement Approval'' to increase clarity for readers of the HMR who are not

[44] See HMG–127: *https://www.regulations.gov/document/PHMSA-2018-0080-0001.*

familiar with the OTMA process. In § 174.50(d)(1), PHMSA proposes editorial edits to the language approved by RSAC and offered to PHMSA and FRA for consideration to increase the clarity of the marking requirement for non-conforming rail cars. Specifically, based on consultation with FRA, PHMSA proposes to add the following marking into the HMR; this marking is currently a requirement in each OTMA issued by FRA (except those overloaded by weight).

HOME SHOP FOR REPAIRS
DO NOT LOAD
or
MOVING FOR
DISMANTLING
DO NOT LOAD

In § 174.50(d)(2)(ii), PHMSA proposes editorial edits to the language approved by RSAC and offered to PHMSA and FRA for consideration. This proposed language shortens the sentences and clarifies the notification requirements, specifically that the approval grantee must ensure the consignee or final destination facility has been notified and will accept the non-conforming tank car. This ensures that the tank car is only consigned to a location capable of accepting the car, and unloading the product, if necessary. If the maintenance activities are to be conducted by a mobile unit, they must occur at the maintenance destination indicated in the application.

In § 174.50(d)(4), PHMSA proposes editorial revisions to the language approved by RSAC and offered to PHMSA and FRA for consideration. These proposed edits include clarifying instructions on routing rail cars moving under OTMAs, specifically that the OTMA grantee and railroad(s) involved in the movement must select the most appropriate route to the nearest cleaning and/or repair facility capable of performing the required cleaning and/or repairs. This aligns with an existing requirement in OTMAs issued by FRA.

Lastly, final rule HM–215O [45] harmonized the HMR with international standards and codified recognition of Temporary Certificates issued by Transport Canada for cross-border movements of non-conforming tank cars to or from Canada. To ensure this allowance remains, PHMSA proposes to specify the authorization for the use of Temporary Certificates in lieu of OTMAs for cross-border movements to or from Canada in § 174.50(b)(4).

PHMSA expects the revisions proposed to § 174.50 to formalize and clarify the OTMA process will increase efficiency for rail car owners and railroads, as well as FRA staff processing OTMA requests. PHMSA also expects that over time, lessons learned from the root cause analysis that FRA is authorized to require in OTMAs will reduce the number of non-accidental releases, creating safety and environmental benefits.

Section 174.58

PHMSA proposes to add § 174.58 to detail what ''extent practicable'' means for rail transportation with respect to the § 171.8 definition of *residue.* This language was originally proposed as a change to the definition of *residue* in § 171.8, as part of the recommend language developed by RSAC Task 13–02, approved by consensus vote at the May 25, 2017, RSAC meeting, and offered to PHMSA and FRA for consideration. However, PHMSA proposes to relocate the RSAC-approved language from the definition of *residue* in § 171.8 to § 174.58. If RSAC's proposed revision is made in § 171.8, the changes made to the definition of *residue* would have broader implications than the intent of clarifying its meaning for purposes of rail transportation of hazardous material. The intent of the proposed change remains the same as the RSAC proposal; to clarify that ''extent practicable'' means the material that remains in a bulk package after it has been unloaded using properly functioning service equipment and plant process equipment. Because part 174 is related to rail transportation operations, PHMSA proposes that this regulatory language more appropriately fits in new section § 174.58, instead of as part of the definition of *residue* in § 171.8 which has broader applicability. Note that in accordance with the § 171.8 definition of *residue,* a tank car must be unloaded to the maximum ''extent practicable'' in order to be transported with the residue description. PHMSA welcomes comment on the proposed implementation of this language. PHMSA expects this proposed revision will provide further clarity on what is considered residue for rail shipment of hazardous material and increase safety by ensuring bulk packages that actually qualify for ''residue'' status are shipped with that description.

Section 174.59

Section 174.59 details the requirements for marking and placarding rail cars carrying hazardous materials. PHMSA proposes to revise the requirements for replacing lost placards and to provide context to the ''next inspection point.'' Specifically, PHMSA proposes the ''next inspection point'' be revised to the ''nearest inspection point'' and clarify that this point is ''in the direction of travel'' and ''where mechanical personnel responsible for inspections related to 49 CFR parts 215 and 232 are on duty.'' As discussed during the May 5 and June 8–9, 2016, HMIWG meetings, the intention of this provision is that lost placards are replaced as best and as soon as they can at a location where personnel are present and capable of performing inspections. During HMIWG meetings, it was also suggested that § 174.59 reflect similar language from 49 CFR parts 215 and 232, specifically that placards are to be ''replaced at the next inspection point, interchange, or rail yard in the same direction as the train movement.''

The proposed revision to § 174.59 aligns with 49 CFR parts 215 and 232, by clarifying the ''nearest inspection point,'' where the placards can be replaced is in the direction of train movement. The final recommended language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration. PHMSA expects this proposed revision will improve safety by clarifying the intent of the provision and ensuring the missing hazard communication placards are replaced as soon as possible.

Additionally, the recommended RSAC language for § 174.59 removes reference to ''car certificates.'' PHMSA and FRA seek comment on the removal of the reference to ''car certificates'' in § 174.59.

Section 174.63

This section outlines handling and loading requirements for portable tanks, intermodal (IM) portable tanks, intermediate bulk containers (IBCs), large packagings, cargo tanks, and multi-unit tank car tanks transported by rail. PHMSA proposes to make editorial revisions to the title of § 174.63 to specify the section applies to rail transport in COFC or TOFC service.

Additionally, paragraph (b) specifies requirements applicable to transport of a bulk packaging inside a fully closed transport vehicle or fully closed freight container. PHMSA proposes to clarify the current reference to IM 101 and IM 102 as types of portable tanks. This proposed change is editorial in nature and does not impose any new requirements.

Paragraph (c) provides instruction, specifically, six conditions, for an alternate method of transportation to paragraph (b) for bulk packaging using COFC or TOFC service. PHMSA

[45] 85 FR 27810 (Mar. 11, 2020).

proposes to revise the condition in paragraph (c)(1), which outlines authorized packaging sections, by adding packagings authorized in § 173.247 for elevated temperature materials to the list of packaging sections, as well as Division 2.2 materials not specifically listed in the § 173.315(a)(2) table that are packaged as authorized in the table and § 173.315 conditions. This proposed amendment will authorize these packagings to be transported without requiring approval from FRA. PHMSA expects that adding existing safe, authorized packagings for elevated temperature materials and non-flammable gases to the COFC or TOFC authorization will not compromise safety and will increase flexibility for shippers of these materials.

PHMSA also proposes to amend paragraph (c)(2) to indicate that a rail car transporting a bulk package in COFC or TOFC service must comply with applicable regulatory requirements for the type of rail car being used. The current requirement instructs the shipper that the ''tank'' and flatcar used must comply with applicable requirements of the HMR concerning its specification, but use of the term ''tank'' obscures the intended general reference to bulk packagings in § 174.63, and the HMR contains no specifications for flatcars. The proposed amendments will instead refer generally to bulk packagings that must adhere to applicable specifications and to flatcars that must comply with applicable rail car regulatory requirements. This amendment will provide greater clarity, which will enhance the safety of transporting these bulk packagings by rail. The final recommended language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration.

Section 174.67

Section 174.67 outlines the requirements for transloading of tank cars. HMIWG reviewed this section to update, clarify, and remove regulations where appropriate. The recommended language was approved by consensus vote during the May 25, 2017, RSAC meeting and submitted to PHMSA and FRA for consideration. However, since the 2017 submission of the recommended language and following an in-depth review by PHMSA and FRA, in this NPRM we propose additional changes to the recommended language. These changes are not intended to revise the intent of HMIWG, but to ensure that the section is easier to read and consistent with the rest of the HMR—such as removing and reserving certain paragraphs instead of redesignating them—and to promote clear understanding of the requirements for safe transloading.

PHMSA proposes to modify the title of the section from ''unloading'' to ''transloading''—as approved by HMIWG—because this more accurately reflects the operations covered by this section. Transloading is a subset of loading or unloading that includes both loading tank cars from, and unloading tank cars into, another packaging for continued movement in transportation.

As approved by HMIWG, PHMSA proposes to remove the introductory sentence of this section because it is unnecessary and inconsistent with other sections in the HMR. The sentence merely states, ''for transloading operations, the following rules must be observed.'' With the proposed retitling of the section, it is now unnecessary.

Paragraph (a)(1) specifies requirements for hazmat employees performing unloading operations. PHMSA proposes minor revisions to paragraph (a)(1) to clarify that this section applies specifically to transloading, as opposed to all unloading operations, as approved by HMIWG. PHMSA notes here that tank car loading and unloading is covered in § 173.31 (Use of Tank Cars) and, as such, proposes to add reference to § 173.31(d) (examination before shipping) and (g) (tank car loading and unloading) to increase awareness of relevant requirements for tank car loading and unloading.

Paragraph (a)(2) specifies requirements for securing a tank car against motion. PHMSA proposes to revise paragraph (a)(2) by removing the current language and replacing it with a reference to § 173.31(g), as the language currently in paragraph (a)(2) is unnecessarily duplicative of the requirements in § 173.31(g).

Paragraphs (a)(3) and (4) specify securement of access to the track and required warning signage, respectively. As recommended by HMIWG, PHMSA proposes to remove and reserve paragraphs (a)(3) and (4) because the track securement language would now become unnecessarily duplicative of the proposed track securement language in § 173.31(g) (*see* discussion of proposed amendments to § 173.31(g)).

Paragraph (a)(5) specifies the written safety procedures that must be maintained and available for transloading operations, including measures to account for the physical and chemical properties of the lading being transloaded. In paragraph (a)(5), PHMSA proposes to include a statement that the procedures must include measures to address the safe handling and operation of the tank car and tank car service equipment, as well as account for physical and chemical properties of the lading being transloaded. HMIWG determined that many of the prescriptive elements of this section may be outdated or inconsistent with current industry best practices for certain materials, operations, and modern tank car designs. Thus, many of the prescriptive elements of § 174.67 in the currently effective paragraphs (b)–(g), (n), and (o) were removed and it was the intent of HMIWG that these prescriptive elements would be substituted with new performance-based language proposed in paragraph (a)(5). However, upon further review of the language approved by the RSAC, PHMSA proposes a modification to the recommended language of (a)(5) to clarify our expectations on what the transloading procedures must cover. PHMSA and FRA reviewed the prescriptive instructions proposed for removal from paragraphs (b)–(g), (n) and (o), and used the subjects addressed by the instructions to generate a list of procedures the proposed paragraph (a)(5) instructions must address. PHMSA expects that the transloading procedures required by paragraph (a)(5) must address, at a minimum, the following:

- Temperature monitoring and pressure relief;
- Safe operation of the tank car for product loading or unloading;
- Proper disposal of used seals and other debris;
- Measures to avoid spillage of contents outside the tank;
- Operation of tank car service equipment;
- Proper removal of product plugs that prevent adequate operation of the service equipment; and
- Proper tool maintenance measures including the types of tools to use, calibration, cleanliness, and instructions on tool use.

To clarify our intent, PHMSA proposes to add this list of minimum elements to the transloading procedure requirement in paragraph (a)(5). Additionally, PHMSA notes that the current language of paragraph (a)(5) does not include a specific instruction that transloading facilities must follow their written procedures. The removal of the prescriptive instructions in this section increases the importance of the written procedures for safe transloading operations; therefore, we propose to add the phase ''and adhere to'' to the requirement to maintain written transloading procedures in order to

ensure that these procedures are actually implemented.

As agreed to by HMIWG, PHMSA proposes to remove and reserve paragraph (a)(6), which currently specifies requirements to relieve pressure in the tank car before removing a manhole cover or outlet valve cap from the tank car. As noted by HMIWG, the current requirement is too prescriptive, outdated, and not necessarily consistent with current industry best practices. Furthermore, procedures to monitor the temperature and to relieve pressure should be part of the overall safety procedures and measures referenced in the proposed performance-based requirement of new paragraph (a)(5); therefore, we are removing the duplicative measures in current paragraph (a)(6) and reserving the paragraph.

The RSAC-approved regulatory text for § 174.67 proposed to remove the existing requirements in currently effective paragraphs (b) through (g), to re-designate the requirements in paragraphs (h) through (l) into these newly removed paragraphs, and also to update the requirements in (h) through (l) to address changes in tank car design and operation. However, since the 2017 submission of the recommended actions and following an in-depth review by PHMSA and FRA, we have determined that redesignating the existing requirements would result in confusion; therefore, in this NPRM we propose to remove and reserve paragraphs (b) through (g), and to make the RSAC-approved revisions to the section while maintaining the existing paragraph structure. For example, rather than proposing to revise the requirements for securing unloading connections that are currently found in paragraph (h) and moving the requirements to paragraph (b), we propose to revise the requirements in paragraph (h) and leave it in its current location in the section. Otherwise, a current reference citation to paragraph (h) in another section of the HMR or existing guidance documents would no longer make sense. Below we discuss the revisions to each of the remaining paragraphs of § 174.67.

PHMSA proposes to remove and reserve paragraph (b), which includes prescriptive language on the operation of various types of manway designs. The current language has become outdated and does not encompass modern-day manway cover designs or industry best practices. Procedures for safely operating various types of manway designs must be included in the safety procedures required by proposed paragraph (a)(5) of this section, and should be consistent with the design, OEM recommendations, and industry best practices. Structurally, HMIWG voted to replace this paragraph with the requirements currently proposed in paragraph (h) instead of removing and reserving paragraph (b). For ease of understanding and to ensure no other regulatory citations or guidance documents need to be updated, PHMSA instead proposes to remove and reserve paragraph (b).

Paragraph (c) contains prescriptive procedures for operation of manhole covers during unloading through the bottom outlet valve. The current language has become outdated and does not encompass modern day manway cover designs or industry best practices. The transloading operator's procedure for safely operating the tank car for product unloading must be adequately addressed by the safety procedures required by proposed paragraph (a)(5) of this section. Structurally, HMIWG voted to remove this paragraph and replace it with the requirements currently proposed in paragraph (j) rather than removing and reserving paragraph (c). However, for readability and so no other regulatory citations or guidance documents need to be updated, PHMSA proposes to remove and reserve this paragraph instead.

Paragraph (d) contains prescriptive safety procedures for unloading of product from a tank car. Paragraph (d) may not be applicable to certain types of transloading operations and may no longer be consistent with current industry best practices. As such, PHMSA proposes to remove and reserve the requirements. These procedures should be adequately covered by the safety procedures developed and updated by the transloading operator to comply with proposed paragraph (a)(5) of this section. Structurally, HMIWG proposed to remove this paragraph and replace it with the requirements currently proposed in paragraph (k) instead of removing and reserving paragraph (d). However, for readability and so no other regulatory citations or guidance documents need to be updated, PHMSA proposes to remove and reserve this paragraph instead.

Paragraph (e) currently states that seals or other substances shall not be thrown into the tank, and the contents of the tank may not be spilled over the car or tank. HMIWG determined the requirement in this paragraph was unnecessarily prescriptive, as the procedures for properly removing and disposing of seals and other substances must be included in the safety procedures required by proposed (a)(5) of this section. Furthermore, the HMR already prohibits residual hazardous material on the outside of the packaging. Structurally, HMIWG proposed to remove this paragraph and replace it with the requirements currently proposed in paragraph (l) instead of removing and reserving paragraph (e). However, to ensure ease of understanding and so no other regulatory citations or guidance documents need to be updated, PHMSA proposes to remove and reserve this paragraph instead.

Paragraph (f) currently contains prescriptive safety procedures for operating a top-operated bottom outlet valve. HMIWG determined that these prescriptive safety procedures for valve operation are outdated and do not reflect current bottom outlet designs. The requirements for bottom outlet valve operation must be part of the safety procedures as required by proposed paragraph (a)(5) of this section. Structurally, HMIWG agreed to remove this paragraph and replace it with the requirements currently proposed in paragraph (m) instead of removing and reserving paragraph (f). However, to ensure ease of understanding and so no other regulatory citations or guidance documents need to be updated, PHMSA proposes to remove and reserve this paragraph instead.

Paragraph (g) currently contains prescriptive procedural requirements for operation of equipment to remove product plugs that prevent adequate operation of the valves and equipment. In 2017, HMIWG agreed to remove and reserve this paragraph. For some operations, the current procedures of paragraph (g) may be outdated or inconsistent with current industry best practices. Instead, PHMSA and FRA have determined such prescriptive procedures must be included and updated in the safety procedures required by proposed paragraph (a)(5) of this section. As such, PHMSA proposes to remove and reserve this paragraph (g).

Paragraph (h) currently details securement requirements for connections used for the transfer of hazmat into—or out of—a tank car. PHMSA proposes to amend paragraph (h) by removing the word ''unloading'' from it, as agreed to by HMIWG. However, as previously mentioned, instead of moving this paragraph to replace paragraph (b)—as agreed to by HMIWG—PHMSA proposes to make this change without moving the paragraph. Finally, the language is further modified for clarity by removing the reference to ''pipes on the dome'' since connections could include more

than just pipes (*e.g.,* valves, hoses, or reducers).

Currently, paragraph (i) provides requirements for the facility operator during unloading, paragraph (j) includes certain exceptions for attendance, and paragraph (k) specifies requirements when an unloader is absent. In this NPRM, PHMSA proposes minor revisions to paragraphs (i)(2)(i), (j)(2), (k) introductory text, (k)(4), and (k)(5). These minor edits align these paragraphs with the rest of the proposed amendments in § 174.67 and were agreed to by HMIWG.

Paragraph (l) currently prescribes the actions that must be taken as soon as a tank car is completely unloaded. As agreed to by the HMWIG, PHMSA proposes to remove the closure securement language and replace it with a reference to pre-transportation closure securement regulations in § 173.31. This is being proposed because we believe this securement of closures and removal of unloading connections language is unnecessary and redundant of existing requirements in § 173.31(d) associated with pre-trip examination of the tank car.

Paragraph (n) currently contains prescriptive environmental remediation procedures when oil or gas has been spilled. As agreed to by HMIWG, PHMSA proposes to remove and reserve paragraph (n) because specific instruction on the environmental remediation or cleanup of a hazmat spill is outside the scope of the HMR. However, such procedures may be included as part of the facility's safety procedures in order to meet other applicable federal, state, or local requirements.

Paragraph (o) currently includes language requiring tools to be kept clean. As recommended by HMIWG, PHMSA proposes to remove and reserve paragraph (o). Tool maintenance measures including the types of tools to use, calibration, cleanliness, and instructions on use must be included in the safety procedures required by proposed paragraph (a)(5) of this section. Therefore, we are removing the redundant language covered by this paragraph and reserving it.

Overall, PHMSA expects that the proposed revisions to § 174.67 will maintain safety by allowing transloading to be conducted in accordance with written safety procedures and industry best practices developed specifically for the tank car designs involved and materials being transferred, instead of prescriptive standards.

Section 174.81

Section 174.81 specifies segregation requirements for the transportation of hazardous materials by rail. Paragraph (g) specifies the instructions for the Class 1 (explosive) segregation table in paragraph (f). In review of these requirements, PHMSA notes that paragraph (g)(3)(iv) has outdated terminology. Currently, the paragraph specifies requirements and limitations for detonators and detonating primers. However, the term ''detonating primers'' is no longer used in the HMR. Final rule HM–189M [46] corrected editorial errors, made minor regulatory changes, and improved the clarity of certain provisions to the HMR. One of these revisions was updating the wording ''detonating primers'' to the more accurate terminology of ''detonating assemblies and boosters with detonators.'' However, PHMSA identified this editorial correction was not made in § 174.81(g)(3)(iv). Therefore, PHMSA proposes to revise the terminology of ''detonating primers'' to ''detonating assemblies and boosters with detonators.'' In review of § 174.81(g)(3)(iv), PHMSA also determined the phrase ''Division 1.4S explosives'' created unnecessary confusion in the applicability of Note 4. Detonators, detonating assemblies, and boosters with detonators, whether Division 1.1, 1.2, or 1.4, may not be transported in the same rail car with Division 1.1 and 1.2 material (except other detonators, detonating assemblies, and boosters with detonators). These requirements align with current standards for highway and vessel explosive segregation. PHMSA expects these editorial clarifications will improve clarity of the HMR while not creating any additional burdens for rail transportation of explosives.

Part 176

Section 176.2

Section 176.2 defines terms for the purposes of part 176. In conjunction with the USCG, PHMSA proposes an editorial revision to the definition of *Commandant (CG–522), USCG* to reflect organizational updates within the USCG. The proposed revisions include replacing the acronym ''CG–522'' with the current acronym ''CG–ENG,'' which stands for United States Coast Guard Office of Design and Engineering Standards; replacing the ''Office of Operating and Environmental Standards'' with the current name ''Office of Design and Engineering Standards''; and replacing the outdated postal code ''20593–0001'' with the current postal code of ''20593–7509.''

Section 176.84

Section 176.84 describes the requirements to store, handle, and segregate hazardous materials for cargo and passenger vessels, with paragraph (a) specifying the meaning of the Column 10B of the § 172.101 HMT stowage codes (*e.g.,* ''stow away from hydrazine''). Limited quantities are not subject to the stowage code provisions found in Column 10B of the HMT (*see* § 172.101(k)), however § 176.84(a) does not restate that limited quantities are not subject to the stowage code provisions assigned by Column 10B of the HMT.

The International Vessel Operators Dangerous Goods Association (IVODGA) submitted a comment [47] to the 2017 Regulatory Reform Notice, stating that placing the limited quantity stowage code exception only in § 172.101(k) created confusion for shippers and vessel operators. IVODGA requested that PHMSA revise § 176.84 editorially to reiterate that limited quantities are not subject to the stowage codes assigned by Column 10B of the § 172.101 HMT. PHMSA and the USCG agree that § 176.84 should be revised editorially to reiterate the limited quantity exception to reduce confusion. Therefore, PHMSA proposes to revise § 176.84(a) editorially by duplicating the limited quantity exception language from § 172.101(k). PHMSA expects this revision will increase safety and efficiency by reducing confusion for shippers and carriers of limited quantity materials.

Section 176.340

Section 176.340 describes requirements for the vessel transportation of combustible liquids in portable tanks. Paragraph (c) specifies portable tanks approved by the Commandant (CG–MSO), USCG are authorized for the transportation of combustible liquids by vessel. PHMSA proposes an editorial revision, to replace the acronym ''CG–MSO'' with that office's current acronym ''CG–ENG.'' This revision will provide clarity and reduce confusion by aligning the HMR with USCG's current office structure.

Section 176.905

Section 176.905 describes the requirements for transporting vehicles powered by an internal combustion

[46] 61 FR 51334 (Oct. 1, 1996).

[47] See IVODGA OST Regulatory Reform comment: *https://www.regulations.gov/document?D=DOT-OST-2017-0069-2399.*

engine, fuel cell, batteries, or a combination of these fuel sources by vessel. Paragraph (i) specifies when a vehicle complies with the requirements of the paragraph, it is not subject to the HMR. PHMSA proposes to add paragraph (i)(7) to provide an exception from the requirements of the HMR for vehicles stored incidental to movement on shore prior to or after vessel transportation. This exception is intended to mirror the HMR's broad exception for vehicles transported by highway or rail in accordance with § 173.220(h)(1). PHMSA expects this will have no impact on the safe transportation of vehicles while providing regulatory relief for vessel transporters.

Part 177

Section 177.801

Section 177.801 specifies that a forbidden material, or hazardous material not prepared in accordance with the HMR, is not authorized for transportation by motor vehicle. PHMSA proposes to expand the section to include additional scenarios that are unacceptable for transportation. These are proposed for ease of regulatory understanding and clarity and are not new restrictions. To accomplish this, the first half of the introductory paragraph is proposed as a new paragraph (a). Additionally, the second half of the introductory paragraph is moved to a new paragraph (b) and revised to specify that a hazardous material not classified, packaged, marked, labeled, or placarded in accordance with the requirements of the HMR or by special permit may not be accepted for transportation or transported. These additional examples will provide greater clarity of what materials are not acceptable for transportation under the HMR and will increase safety.

Section 177.804

This section requires motor vehicle carriers of hazardous materials comply with the FMCSR and paragraph (a) specifies motor carriers and other persons subject to part 177 must also comply with specific provisions of the FMCSR. PHMSA has been made aware there is potential confusion in a scenario where a vehicle is subject to the HMR, but the vehicle is not of sufficient size to be subject to the FMCSR. Therefore, to provide regulatory clarity without reducing safety, PHMSA proposes to amend paragraph (a) to specify compliance with the FMCSR is only applicable to vehicles that are subject to the FMCSR.

Section 177.816

Section 177.816 specifies the requirements for highway transportation driver training. Currently, paragraph (c) specifies that §§ 177.816(a) and (b) training requirements may be satisfied with a tank vehicle or hazardous materials endorsement. In collaboration with FMCSA, PHMSA has become aware that cargo tank motor carriers are relying solely on the tank endorsement or hazardous materials endorsement provision in paragraph (c) to meet the training requirements related to cargo tank driving functions. FMCSA advises that most states have a six- or seven-year expiration on Commercial Driver's Licenses (CDLs), far beyond the three-year refresher training required by §§ 172.704 and 177.816(d). While paragraph (c) allows for the tank endorsement or hazardous materials endorsement to meet training requirements, the HMR does not allow the period of renewal of a tank vehicle or hazardous materials endorsement to supersede the three-year HMR requirement. Therefore, to assist in understanding of the current regulatory requirements and increase compliance, PHMSA proposes to add qualifying language to paragraph (c) to specify that the tank vehicle or hazardous materials endorsement may be used in place of the training requirements if it appropriately covers the requirements in paragraph (a) and (b). Furthermore, PHMSA proposes to add language to paragraph (d) stating that the training frequency must meet the requirements of § 172.704(c), which is required at minimum every three years. This clarification will enhance safety by ensuring everyone understands and abides by the current requirement that periods between training cannot exceed three years and will help ensure all operators are aware of the most current issues and response plans.

Section 177.835

Section 177.835 specifies additional requirements for the transportation of Class 1 hazardous materials by motor vehicle. Paragraph (d) provides conditions and requirements for Class 1 materials to be transported in multipurpose bulk trucks (MBTs). PHMSA proposes to revise paragraph (d) to specify an MBT may not be transported with a cargo tank that is required to be marked or placarded. Final rule HM–233D [48] established standards for the safe transportation of certain bulk explosives. In HM–233D, PHMSA added paragraph (d) to allow Class 1 (explosive) materials to be transported with Division 5.1 (oxidizing), Class 8 (corrosive), and/or combustible liquids in MBTs under conditions set forth in IME Standard 23 and § 177.835(g). This regulatory allowance was based on the adoption of DOT–SP 11579. Following publication of this final rule, FMCSA noted that certain private motor carriers are transporting explosive materials for mining and quarrying in MBTs along with a secondary cargo tank motor vehicle transporting Division 1.5 hazardous materials (sometimes referred to as a ''pup'' cargo tank motor vehicle). However, it was not PHMSA's intention to authorize this configuration in HM–233D, as it was not authorized in DOT–SP 11579. As this is not indicated clearly in § 177.835(d), PHMSA proposes to specify an MBT may not be transported with any cargo tank that is required to be marked or placarded under § 177.823. PHMSA expects this proposed language to increase safety and eliminate the inconsistency between DOT–SP 11579 and the current regulatory requirements. In addition, this proposal is consistent with the existing prohibition in § 177.835(c)(3) that specifies Division 1.1 or 1.2 (explosive) materials may not be loaded or carried on a combination of vehicles when any vehicle in the combination is a cargo tank that is required to be marked or placarded under § 177.823.

Section 177.837

Section 177.837 specifies the requirements for the transportation of Class 3 (flammable liquids) hazardous materials by motor vehicle. Paragraph (c) specifies bonding and grounding requirements before and during transfer of lading to or from a cargo tank. This requirement only applies to flammable liquids; the HMR do not currently require cargo tanks that are transferring combustible liquids to be bonded and grounded in accordance with the requirements of this section. However, combustible liquids and flammable liquids that have been reclassified as combustible liquids exhibit characteristics similar to materials classed as flammable liquids, particularly regarding vapors. Both combustible liquids and flammable liquids that have been reclassified as combustible liquids also have the potential for initiation by the static charge produced by product flow through a piping system on a cargo tank motor vehicle that is not bonded and grounded.

PHMSA identified four recent incidents involving combustible liquids that may have been minimized by the

[48] 80 FR 79423 (Dec. 21, 2015).

proposed bonding and grounding requirement prior to loading or unloading. Below are summaries of these incidents, which highlight the potential severity of incidents, resulting total damages, and release of hazardous materials:

- August 5, 2015: A cargo tank was loading diesel fuel at a fuel station when a fire ignited under the hood of the vehicle, resulting in $349,130 in total damages. 4,500 gallons of diesel fuel was released.
- August 4, 2016: An explosion occurred at a shipper's loading facility while diesel fuel was being loaded into a cargo tank motor vehicle. Total damage costs amounted to almost $2 million and a release of 2,500 gallons.
- January 31, 2018: While a cargo tank motor vehicle was being loaded, Fuel Oil (No. 1, 2, 4, 5, or 6) was released, followed by an explosion and fire. The total damages were $1.3 million and 2,534 gallons were released.
- June 3, 2019: An explosion occurred while aviation fuel was being loaded into a cargo tank motor vehicle, resulting in a release of 3,104 gallons of hazardous material and approximately $7.3 million in total damages. In addition, this incident resulted in one major injury and three minor injuries.

Based on these incidents and to ensure the safe transportation of these materials, PHMSA proposes to revise paragraph (c) to specify that a flammable liquid, a combustible liquid, or a flammable liquid reclassified as combustible liquid is subject to the bonding and grounding requirements of § 177.837.

Section 177.840

This section details additional requirements for Class 2 (gases) hazardous materials transported by highway. Paragraph (n) states that in the event of an unintentional release of liquefied compressed gas to the environment, the internal self-closing stop valve or other primary means of closure must be shut. Paragraph (r)(2) requires the qualified person monitoring the unloading of a cargo tank motor vehicle containing liquefied compressed gas using a facility-provided hose be within arm's reach of the mechanical means of closure for the internal self-closing stop valve. Lastly, paragraph (t) requires the qualified person monitoring the unloading of a cargo tank motor vehicle containing liquefied compressed gas and being unloaded without emergency discharge equipment be within arm's reach of the mechanical means of closure for the internal self-closing stop valve. All three of these paragraphs only reference internal self-closing stop valves and do not include a reference to external self-closing stop valves. However, there are cargo tank motor vehicles that transport liquefied compressed gas that have external self-closing stop valves. In total, FMCSA estimates that there are approximately 122,014 cargo tank motor vehicles that transport Division 2.2 (non-poisonous nonflammable gas) hazardous materials, which includes liquefied compressed gases, that have internal and/or external self-closing stop valves. Given the high number of cargo tank motor vehicles that may utilize external self-closing stop valves, primarily in cryogenic service, it is important to ensure that requirements for access to the means of closure for internal self-closing stop valves also apply to external self-closing stop valves. Therefore, PHMSA is adding clarifying language that these access requirements apply to both internal and external means of closure. PHMSA expects these additional provisions will continue to ensure the safe transportation of cargo tank motor vehicles and proposes to revise these paragraphs to require external self-closing stop valves to comply with the same requirements as internal self-closing stop valves. In review of historical rulemaking language, PHMSA does not expect it was the explicit intent to exclude external self-closing stop valves from these requirements.

Lastly, in paragraph (t), PHMSA proposes to remove the reference to December 31, 1999, as it is obsolete, and all chlorine cargo tank motor vehicles are now subject to the additional unloading requirements specified in this paragraph. This editorial revision increases regulatory clarity without diminishing safety.

Section 177.841

This section provides additional requirements when transporting Division 6.1 and Division 2.3 hazardous materials via motor vehicle. Paragraph (e)(1) specifies when a package bears a POISON or POISON INHALATION HAZARD label or placard, it may not be transported in the same motor vehicle with foodstuffs, feed, or edible material intended for consumption by humans or animals unless the poisonous material is packaged in a specific way. In the interest of safety, PHMSA proposes to revise paragraph (e)(1) to also include packages bearing or required to bear a POISON GAS label or placard in the list of restricted hazardous materials with foodstuffs, feed, or edible material.

Paragraph (e)(2) specifies a package bearing or required to bear a POISON, POISON GAS, or POISON INHALATION HAZARD label is not authorized for transportation in the driver's compartment of a motor vehicle. Due to new motor vehicle designs, PHMSA proposes to revise this paragraph to specify that this also includes ''enclosed van trucks with no permanent barrier separating the driver from the cargo component.'' As the intent of this paragraph is to ensure a driver is not exposed to a poisonous material while in transportation, this revision ensures the continued safety of drivers in transportation.

Part 178

Section 178.320

Section 178.320 specifies general requirements for DOT specification cargo tank motor vehicles and paragraph (a) includes definitions that apply to DOT specification cargo tank motor vehicles.

PHMSA proposes to amend the following definitions:

- *Cargo tank:* During review of § 178.320, PHMSA noted that *cargo tank* was also defined in § 171.8, with minor editorial differences. PHMSA proposes to revise the § 171.8 definition of *cargo tank* to align with the current definition in § 178.320. See ''Section IV. Section-by-Section Review; Part 171; Section 171.8'' for details on the proposed changes to the § 171.8 definition of *cargo tank*. Subsequently, instead of also proposing to revise the definition in this section to match, PHMSA proposes to replace the definition of *cargo tank* with a reference to the definition in § 171.8. This avoids unnecessary duplication and ensures if a future revision is necessary, it will only have to be revised in a single location. Furthermore, this still ensures that a reader who looks to § 178.320 for the definition of *cargo tank* is able to locate the definition in § 171.8 easily.
- *Cargo tank motor vehicle:* The definition of *cargo tank motor vehicle* is currently defined in both §§ 171.8 and 178.320, with no differences between the two. Similar to the proposal to the definition of *cargo tank* in this section, PHMSA proposes to replace the § 178.320 definition of *cargo tank motor vehicle* with a reference to the definition in § 171.8. This avoids any potential future discrepancy between the same definition in two sections of the HMR.
- *Minimum thickness:* PHMSA proposes to add the word ''in'' to the last sentence of this definition, as an editorial amendment for correct grammar.

PHMSA proposes to add the following definitions:

- *Cargo tank motor vehicle certification date:* Based on stakeholder

feedback, PHMSA and FMCSA understand there is some confusion on the difference between the cargo tank motor vehicle certification date and the original test date. It is important to understand the difference, as the HMR require the cargo tank motor vehicle certification date to be marked on the specification plate, with the original test date marked on the name plate. To reduce any confusion, PHMSA proposes to add a definition for *cargo tank motor vehicle certification date* and *original test date.* PHMSA proposes to define *cargo tank motor vehicle certification date* as the date the cargo tank motor vehicle manufacturer certifies the completed cargo tank motor vehicle complies in all respects with the DOT specification and the ASME Code, if applicable. See below for a discussion on the proposed definition of *original test date.*

• *Component:* Section 178.320 currently defines an *appurtenance* as ''any attachment to a cargo tank that has no lading retention or containment function and provides no structural support to the cargo tank.'' Because a component may have some form of lading retention function, either during loading, unloading, in-transit, or a combination thereof, it does not meet the definition of an *appurtenance.* Having no definition in § 178.320 can cause confusion. Therefore, PHMSA proposes to add a definition for *component* to mean ''any attachment to the cargo tank or cargo tank motor vehicle, including valves, piping, fittings, ladders, clips, protection devices, and hoses that contain lading during loading, unloading or transportation, or are required to be pressure or leak-tested in accordance with the requirements of part 180 of this subchapter.''

• *Flexible connector:* In § 180.407(d)(2)(ii) of this NPRM, PHMSA proposes to specify that a flexible connector is a part of the piping system, but it is not currently defined in the HMR. Therefore, PHMSA proposes to add a definition for the term *flexible connector.* The proposed definition is similar to the definition in NFPA Standard No. 58, and PHMSA proposes a *flexible connector* to mean ''a short component of a piping system, not exceeding 36 in. (.91 m) overall length, fabricated of flexible material and equipped with suitable connections on both ends.'' Furthermore, PHMSA proposes this definition specifies that ''liquefied petroleum gas resistant rubber and fabric or metal, or a combination thereof, or all metal may be used.''

• *Lading retention system:* PHMSA proposes to add a definition of *lading retention system* as it is referenced several places in the HMR but is not currently defined. Having no definition in the HMR can cause regulatory confusion, so adding a definition will decrease confusion and enhance safety. PHMSA proposes that a *lading retention system* means ''the cargo tank wall and any associated components or equipment that, if damaged, could result in the release of the contents of the package.'' This proposed definition aligns with Letter of Interpretation Ref. No. 03–0057.[49] As specified in the letter, PHMSA considers piping and valves to be a part of the associated components or equipment in the lading retention system.

• *Lining:* There are a variety of linings used in the cargo tank industry, such as internal and external linings and coatings, and while the term is used throughout the HMR, it is not defined. By adding a definition of *lining* to § 178.320, PHMSA expects this will ensure effective communication within the regulated community and will prevent any future confusion, thus enhancing safety. PHMSA proposes *lining* to mean ''an internal layer of different material covering the inside surface of the cargo tank.''

• *Name plate:* The terms ''ASME plate,'' ''name plate,'' and ''specification plate'' are not used throughout the HMR consistently. This has created a considerable amount of confusion among the regulated community. This uncertainty is amplified when considering the challenges associated with mounting a used ASME Code cargo tank to a new chassis. To address the issue and alleviate industry frustration, PHMSA proposes to establish a definition for *name plate* (as well as a definition for *specification plate*). PHMSA proposes *name plate* to mean ''a data plate permanently attached to the cargo tank by the cargo tank manufacturer for the purpose of displaying the minimum information required by the ASME Code, as prescribed in §§ 178.337–17(b), 178.338–18(b), or 178.345–14(b) of this part, as appropriate.'' PHMSA and FMCSA expect this definition aligns with current industry practice and stakeholder understanding. See below for a discussion on the proposed definition of *specification plate.*

• *Original test date:* As previously discussed, there is confusion on what constitutes the original test date marked on the name plate and the cargo tank motor vehicle certification date stamped on the specification plate. Some in the regulated community have indicated the original test date is the date the cargo tank was actually completed, while others believe it is the cargo tank motor vehicle certification date. However, if the original test date is the date the cargo tank motor vehicle is certified, this does not take into account certain circumstances during the manufacturing process. For example, sometimes a cargo tank motor vehicle is constructed in two phases where the cargo tank is manufactured but it is assembled and mounted on a chassis at a later date (thus becoming a cargo tank motor vehicle). Alternatively, there are other circumstances where a cargo tank is assembled and mounted on a different chassis, and it is necessary to know when the original cargo tank was manufactured. Therefore, as previously discussed, to ensure consistent understanding of the HMR, PHMSA proposes to add definitions for *cargo tank motor vehicle certification date* and *original test date.* PHMSA proposes that *original test date* mean ''the date the cargo tank manufacturer performed the original pressure test in accordance with part 178, to verify the structural integrity of the cargo tank in accordance with the requirements for new construction prescribed in this part.''

• *Sacrificial device:* PHMSA noted that *sacrificial device* is currently defined in § 178.345–1 (the section for DOT Specification 406, 407, and 412 cargo tank motor vehicles definitions); however, the definition also applies to DOT Specification MC 331 cargo tank motor vehicles. Therefore, PHMSA proposes to move the definition for *sacrificial device* from § 178.345–1(c) to § 178.320.

• *Shear section:* PHMSA noted that *shear section* is currently defined in § 178.345–1 (the section for DOT Specification 406, 407, and 412 cargo tank motor vehicles definitions); however, the definition also applies to DOT Specification MC 331 and 338 cargo tank motor vehicles. Therefore, PHMSA proposes to move the definition for *shear section* from § 178.345–1(c) to § 178.320.

• *Specification plate:* As previously mentioned, PHMSA proposes to add a definition for *specification plate* to help distinguish it from a *name plate* and provide greater clarity. PHMSA and FMCSA expect that this proposed definition aligns with current industry practice and stakeholder understanding. PHMSA proposes that a *specification plate* means ''a data plate containing the applicable markings provided in

[49] See Letter of Interpretation Reference No. 03–0057: *https://www.phmsa.dot.gov/regulations/title49/interp/03-0057.*

§§ 178.337–17(c), 178.338–18(c), or 178.345–14(c), as appropriate, and permanently attached to the cargo tank or cargo tank motor vehicle chassis by the manufacturer. The markings on this plate are certification by the manufacturer that the cargo tank or the cargo tank motor vehicle conforms in all respects with the specification requirements of this subchapter.''

PHMSA requests comment on these proposed definitions and how they affect different functions. Specifically, are all the possible alternatives included in the proposed regulatory language? Does any of the proposed regulatory language obstruct current activities or functions?

Section 178.337–1

This section sets forth the general requirements for DOT Specification MC 331 cargo tank motor vehicles. Paragraph (d) addresses the requirement for reflective design of the cargo tank. PHMSA proposes to remove the requirement that specifies that the cargo tank must be painted. This is consistent with previously issued Letters of Interpretation Reference Nos. 11–0067, 14–0180, 15–0242, and 19–0107. This provides for additional regulatory flexibility while still maintaining safe transportation of hazardous materials. Specifically, PHMSA proposes to remove the requirement for the cargo tank to be painted, which allows for the use of a wrap, cover, or paint on uninsulated cargo tanks to meet the reflexivity performance standard.

Paragraph (g) provides definitions specific to MC 331 cargo tank motor vehicles. In review of this section, and the cargo tank motor vehicle definitions in § 178.320, PHMSA noted duplicative definitions for *internal self-closing stop valves* in §§ 178.320 and 178.337–1. PHMSA proposes to remove the definition of *internal self-closing stop valves* in § 178.337–1 to avoid unnecessary duplication and ensure that if the definition needs to be revised in the future, it only has to be revised in one regulatory section.

Section 178.337–2

This section details materials authorized for DOT Specification MC 331 cargo tanks. Paragraph (b)(2)(i) specifies the materials of construction for chlorine cargo tanks manufactured after January 1, 1975, must conform to ASTM A 612 Grade B or A 516/A 516M, Grade 65 or 70 (IBR, see § 171.7 of this subchapter). However, PHMSA and FMCSA noted that steel is no longer defined as grade A or B. Therefore, PHMSA proposes to remove the reference to Grade B steel appropriately to remove any potential confusion.

Sections 178.337–3, 178.338–3, and 178.345–3

Sections 178.337–3, 178.338–3, and 178.345–3 detail structural integrity requirements for DOT Specification MC 331; MC 338; and DOT Specification 406, 407, and 412 cargo tank motor vehicles, respectively. Paragraph (g) in §§ 178.337–3 and 178.338–3 and paragraph (f) in § 178.345–3 specify the design, construction, and installation of an attachment, appurtenance, structural support member, or accident protection device.

In paragraph (g)(3) of §§ 178.337–3 and 178.338–3 and paragraph (f)(3) of § 178.345–3, PHMSA proposes to specify the welding of any appurtenance to the cargo tank wall applies to both ''internal or external'' appurtenances. Consistent with long-standing letters of interpretation previously issued by PHMSA, this revision provides regulatory clarity and ensures continued safe manufacture of cargo tank motor vehicles.[50] In these long-standing letters of interpretation, PHMSA notes that internal appurtenances may not be attached to the cargo tank wall without mounting pads. An example of internal appurtenances are baffles, which require mounting pads to be attached to the cargo tank wall.

PHMSA also proposes minor editorial revisions to §§ 178.338–3(g)(3) as well as § 178.345–3(f) and (f)(3) to ensure consistency throughout the HMR, as these paragraphs outline the same requirements for different types of cargo tank motor vehicles. In § 178.338–3(g)(3), PHMSA proposes to add the preposition ''to'' in the first sentence for grammatical accuracy. In addition, when comparing these paragraphs, PHMSA identified that ''accident damage protection'' was not specified in the applicability of § 178.345–3(f) for DOT 400 series cargo tanks, but it was identified in § 178.337–3(g) for MC 331 cargo tanks and § 178.338–3(g) for MC 338 cargo tanks. As these paragraphs have the same regulatory intent, PHMSA proposes to add accident damage protection to § 178.345–3(f). PHMSA expects this proposal will eliminate any potential confusion from regulatory inconsistency, which will increase safety. PHMSA also proposes to revise the first reference of ''shell or head'' in § 178.345–3(f)(3) to read as ''shell wall or head wall,'' similar to §§ 178.337–3(g)(3) and 178.338–3(g)(3).

Furthermore, §§ 178.337–3(g)(3)(iii), 178.338–3(g)(3)(iii), and 178.345–3(f)(3)(iii) require that when welding any appurtenance to the cargo tank wall with a mounting pad, the pad must extend at least two inches in each direction from any point of an appurtenance or structural support member. The second sentences of these sections also specify ''[t]his dimension may be measured from the center of the attached structural member.'' PHMSA proposes to remove this sentence, because it can lead to confusion while only providing an option on how that measurement can be made. The circumstance for this option mostly applies to only small attachments where, because of either location or function, it is easy to measure from the center of the structural member. PHMSA expects that because this provision is only applicable in some, but not all, circumstances, it creates confusion in situations where the center of the attached structural member cannot be identified or the measurement from the center does not make sense. Therefore, to eliminate any potential confusion, PHMSA proposes to remove this sentence. Although PHMSA proposes to remove the regulatory instruction, the dimension may still be measured from the center of the attached structural member, if applicable.

Finally, PHMSA is proposing an editorial revision to these three sections to remove the phase ''or structural support members.'' Structural support members are not required to be attached to the tank shell with mounting pads (see final rule HM–213) [51] therefore PHMSA proposes to remove the phrase to eliminate confusion over requirements for use of mounting pads with structural support members.

Section 178.337–3

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–3, 178.338–3, and 178.345–3'' for details on the revisions proposed to this section.

Sections 178.337–8, 178.338–11, and 178.345–11

Section 178.337–8 details requirements for the openings, inlets, and outlets of DOT Specification MC 331 cargo tank motor vehicles; § 178.338–11 details discharge control devices for DOT Specification MC 338 cargo tank motor vehicles; and

[50] See Letters of Interpretation Reference Nos. 07–0169 and 14–0235. Letter of Interpretation Reference No. 07–0169 is available at: *https://www.phmsa.dot.gov/regulations/title49/interp/07-0169.* Letter of Interpretation Reference No. 14–0235 is available at: *https://www.phmsa.dot.gov/regulations/title49/interp/14-0235.*

[51] 68 FR 19257 (April 18, 2003).

§ 178.345–11 details tank outlet requirements for DOT Specification 406, 407, and 412 cargo tank motor vehicles. PHMSA proposes to add paragraph (a)(4)(vii) in § 178.337–8, paragraph (c)(2)(iii) in § 178.338–11, and paragraph (b)(1)(iv) in § 178.345–11 to require if the cargo tank is equipped with a mechanical means of remote closure for manual operation, it must not be obstructed by equipment or appurtenances in a manner that prevents access to or operation of the remote means in an emergency. FMCSA has encountered cargo tank motor vehicles where the manual emergency remote shut off device has been obstructed by various equipment or appurtenances that were added after the date of manufacture. This is a safety concern because obstructions to the manual emergency remote shut off device make the device harder to activate in an emergency, which may cause an incident to occur or worsen an incident in progress. Therefore, to address this safety concern, PHMSA proposes to provide an indication in new paragraphs §§ 178.337–8(a)(4)(vii), 178.338–11(c)(2)(iii), and 178.345–11(b)(1)(iv) that if equipped with a mechanical means of remote closure, it must not be obstructed to prevent operation or access in an emergency.

Section 178.337–8

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–8, 178.338–11, and 178.345–11'' for details on the revision proposed to this section.

Section 178.337–9

This section prescribes requirements for PRDs, piping, valves, hoses, and fittings for DOT Specification MC 331 cargo tanks. Paragraph (a)(3) requires each valve used on a DOT Specification MC 331 cargo tank motor vehicle be designed, constructed, and marked for a rated pressure not less than the design pressure of the cargo tank. PHMSA proposes to replace the term ''valve'' with ''pressure relief device'' as this matches the title of paragraph (a) more appropriately.

Paragraph (b) specifies piping, valves, hoses, and fittings requirements for DOT Specification MC 331 cargo tanks. PHMSA proposes to revise the paragraph (b) title from ''Piping, valves, hose, and fittings'' to ''Components and other pressure parts.'' This proposed title aligns with the proposed § 178.320 definition of *components* and more appropriately illustrates the requirements of the paragraph. PHMSA expects this proposed change will help to reduce any regulatory confusion.

PHMSA also found the HMR does not assign responsibility to who must ensure that all components meet paragraph (b) requirements, causing potential regulatory confusion. To address this uncertainty, PHMSA proposes to specify that the cargo tank motor vehicle manufacturer is responsible for ensuring that all components comply with the paragraphs that follow. This aligns with other HMR requirements that require the cargo tank motor vehicle manufacturer to issue the certificate of construction as well as the specification plate and name plate. Therefore, PHMSA expects this proposed amendment to paragraph (b) will reduce regulatory uncertainty and thus, increases safety.

Paragraph (b)(1) specifies the burst pressure requirements for all piping, pipe fittings, hose, and other pressure parts, except for pump seals and PRDs. In order to be consistent with the ASME Code, PHMSA proposes to replace the phrase ''design pressure'' with the phrase ''MAWP,'' the acronym for maximum allowable working pressure used in the ASME Code. This proposed change eliminates an inconsistency between the ASME Code and the HMR and thus, increases safety. In addition, PHMSA proposes to revise the reference for chlorine service from paragraph (b)(7) to paragraph (b)(8), as an editorial amendment.

Paragraph (b)(6) requires cargo tank manufacturers and fabricators to demonstrate that all piping, valves, and fittings installed on a cargo tank are free from leaks by testing them at not less than 80 percent of the design pressure marked on the cargo tank. PHMSA proposes to replace the term ''cargo tank manufacturers and fabricators'' with ''cargo tank motor vehicle manufacturers'' as this better aligns with the responsibilities of manufacturers of cargo tank motor vehicles. Additionally, and similar to the proposed change in paragraph (a)(3), PHMSA proposes to revise the terminology to test at not less than 80 percent of ''design pressure'' to ''MAWP,'' as this better aligns with ASME requirements. Lastly, PHMSA proposes to specify the test should be conducted based off the ''name plate after the piping is installed on the cargo tank motor vehicle'' as opposed to ''cargo tank'' to provide further clarity on this requirement. These proposed changes provide regulatory clarity without impacting safety.

Paragraph (b)(7) specifies requirements for a hose assembler of DOT Specification MC 331 cargo tanks. PHMSA proposes to move the requirements in paragraph (b)(7) to its own new paragraph (e) to provide enhanced visibility, improve regulatory compliance, and thus, improve safety. Subsequently, PHMSA proposes to reserve paragraph (b)(7). Furthermore, in new paragraph (e), PHMSA proposes to add a title of ''hose assembler requirements'' to align with the rest of § 178.337–9 and the Office of Federal Register Document Drafting Handbook, which requires that when one section paragraph has a heading, all of the other paragraphs in the section should as well. Lastly, as a clarifying statement, PHMSA proposes to reference the § 180.416(f) written report requirement for the hose assembler tests. PHMSA expects that adding this reference will improve compliance and therefore, increase safe transportation of hazardous materials.

Sections 178.337–10 and 178.338–10

These sections detail accident damage protection requirements of DOT Specification MC 331 and MC 338 cargo tank motor vehicles. Paragraph (c)(1) of both sections specify rear-end tank protection device requirements. PHMSA proposes to replace the words ''valves, piping, and fittings'' with ''components,'' as this is consistent with the new definition proposed in § 178.320.

Paragraph (c)(1) also specifies the rear bumper dimensions must meet the requirements of § 393.86. However, FMCSA notes there is stakeholder confusion on whether the referenced dimensional requirements or the wheels back vehicle exception in § 393.86 applies. The historical applicability and intent of this paragraph is that the referenced dimensional requirements in § 393.86 apply to accident damage protection. Therefore, to remove any potential confusion, and therefore, increase safety, PHMSA proposes to add a sentence specifying that the wheels back exception provided in 49 CFR 393.86 does not apply.

Section 178.337–10

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–10 and 178.338–10'' for details on the revisions proposed to this section.

Sections 178.337–17 and 178.338–18

Sections 178.337–17 and 178.338–18 detail marking requirements for DOT Specification MC 331 and MC 338 cargo tank motor vehicles, respectively. Paragraph (a) details general requirements for both the name plate and the specification plate. In addition to editorial revisions, PHMSA proposes to specify that the responsibility of applying the name plate and

specification plate fall on the manufacturer, as a clarifying statement. While not explicitly stated, this codifies current practice to remove any ambiguity and ensure continued safe hazardous materials transportation. PHMSA notes this requirement means that the requirements for the name plate, when applicable, and specification plate fall on the person responsible for building the cargo tank, cargo tank motor vehicle, or both. PHMSA also proposes to remove the compliance date of October 1, 2004, as this date has passed, and all DOT Specification MC 331 and MC 338 cargo tank motor vehicles are subject to these requirements.

Paragraph (a)(4) in both sections indicates the specification plate may be attached to the cargo tank motor vehicle chassis rail and details methods on how to do so. PHMSA proposes to revise paragraph (a)(4) to specify the specification plate must be attached to the cargo tank or its integral supporting structure, instead of the cargo tank motor vehicle chassis rail. A DOT Specification MC 331 or MC 338 cargo tank potentially has a longer useable lifespan than the life of the motor vehicle chassis to which it is originally attached. As such, it is possible for the original specification plate to be separated from the cargo tank if the cargo tank is remounted to a different chassis, which poses a safety risk to knowing the specification of the cargo tank. Therefore, to remove this possible scenario, PHMSA proposes to require the specification plate be mounted to the cargo tank itself or an integral supporting structure. Additionally, PHMSA proposes minor editorial amendments for sentence structure clarity. These changes increase regulatory consistency by aligning the specification plate attachment language with that of the DOT 400 series cargo tank motor vehicle specification.

Section 178.337–17

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–17 and 178.338–18'' for details on the revisions proposed to this section.

Section 178.337–18

This section requires appropriate documentation certifying that a completed cargo tank motor vehicle conforms to DOT Specification MC 331 cargo tank requirements and the ASME Code. PHMSA proposes revisions that better align this section with the certification requirements (and proposed changes) in §§ 178.338–19 and 178.345–15 to increase regulatory consistency and thus, compliance and safety.

Paragraph (a) details requirements for the cargo tank data report and a certificate of construction. In the introductory text to paragraph (a), PHMSA proposes to specify the data report is the ''cargo tank's ASME Form U–1A data report as required by Section VIII of the ASME Code'' to align with §§ 178.338–19(a)(1) and 178.345–15(b)(2). Additionally, as an editorial amendment, PHMSA proposes to clarify the ''certificate'' is the ''Certificate of Compliance.'' PHMSA proposes to make similar editorial changes in paragraphs (a)(1) and (3).

Moreover, PHMSA proposes to add language to paragraph (a)(3) to specify that when a cargo tank motor vehicle is manufactured in two or more stages and after the cargo tank motor vehicle is brought into full compliance with the applicable specification and ASME Code, the final manufacturer must mark the specification plate with the cargo tank motor vehicle certificate date and attach the specification plate to the completed cargo tank in accordance with § 178.338–18(a). PHMSA expects this proposed language better aligns this section with §§ 178.338–19 and 178.345–15 and current ASME Code requirements.

Lastly, PHMSA proposes to make a minor editorial amendment to paragraph (a)(4) by removing the indication that the cargo tank motor vehicle must have the Registered Inspector stamp, the specification plate, and issue a Certificate of Compliance, and instead specifying that the Registered Inspector shall complete these actions. This aligns the paragraph better with §§ 178.338–19 and 178.345–15.

Section 178.338–3

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–3, 178.338–3, and 178.345–3'' for details on the revisions proposed to this section.

Section 178.338–10

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–10 and 178.338–10'' for details on the revisions proposed to this section.

Section 178.338–11

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–8, 178.338–11, and 178.345–11'' for details on the revision proposed to this section.

Section 178.338–18

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–17 and 178.338–18'' for details on the revisions proposed to this section.

Section 178.338–19

This section details the requirements for the certification of DOT Specification MC 338 insulated cargo tank motor vehicles. PHMSA proposes revisions that better align this section with the certification requirements (and proposed changes) in §§ 178.337–18 and 178.345–15 to increase regulatory clarity.

Paragraph (a) specifies documents that must be furnished to the owner of a cargo tank motor vehicle. PHMSA proposes to move the current language in paragraph (a)(1) to paragraph (a) introductory text, with minor editorial amendments. Subsequently, PHMSA proposes to revise paragraph (a)(1) to specify that the Certificate of Compliance must be signed by an official of the manufacturer responsible for compliance and a DCE. As mentioned, these changes better align this section with §§ 178.337–18 and 178.345–15 to increase regulatory consistency and clarity. There are no proposed revisions to paragraph (a)(2), but it appears in the regulatory text of this NPRM for the **Federal Register**.

Paragraph (b) specifies requirements when a cargo tank is manufactured in two or more stages. PHMSA proposes to redesignate paragraph (b) as paragraph (a)(3) in addition to editorial amendments to mirror § 178.337–18. Additionally, PHMSA proposes to specify that when the cargo tank motor vehicle is brought into full compliance with the applicable specification and ASME Code, the final manufacturer must mark the specification plate with the cargo tank motor vehicle certificate date and attach the specification plate to the completed cargo tank in accordance with § 178.338–18(a). PHMSA also proposes to remove the language in this paragraph related to what the certification must include.

Paragraph (c) details requirements in the event of a change in ownership. Because PHMSA proposes to redesignate paragraph (b) as paragraph (a)(3), PHMSA proposes to redesignate paragraph (c) as paragraph (b). Because of this proposed redesignation, PHMSA proposes to reserve paragraph (c). Lastly, PHMSA proposes editorial amendments in new paragraph (b) to align with other cargo tank specification certification sections.

Section 178.345–1

This section details the general requirements for DOT Specification 406, 407, and 412 cargo tank motor vehicles. Paragraph (c) includes definitions for

these types of cargo tank motor vehicles. However, there are several definitions in § 178.345–1 that are also found in § 178.320, some of which have different wording. As this could cause confusion, PHMSA proposes to remove all the definitions which are already found in § 178.320. Reducing confusion in the regulations helps to increase compliance and thus, safety. Additionally, and as discussed in ''Section IV. Section-by-Section Review; Part 178; Section 178.320,'' PHMSA proposes to move the definitions for *sacrificial device* and *shear section* to § 178.320 as they apply to other types of cargo tank motor vehicles in addition to DOT Specification 406, 407, and 412 cargo tank motor vehicles.

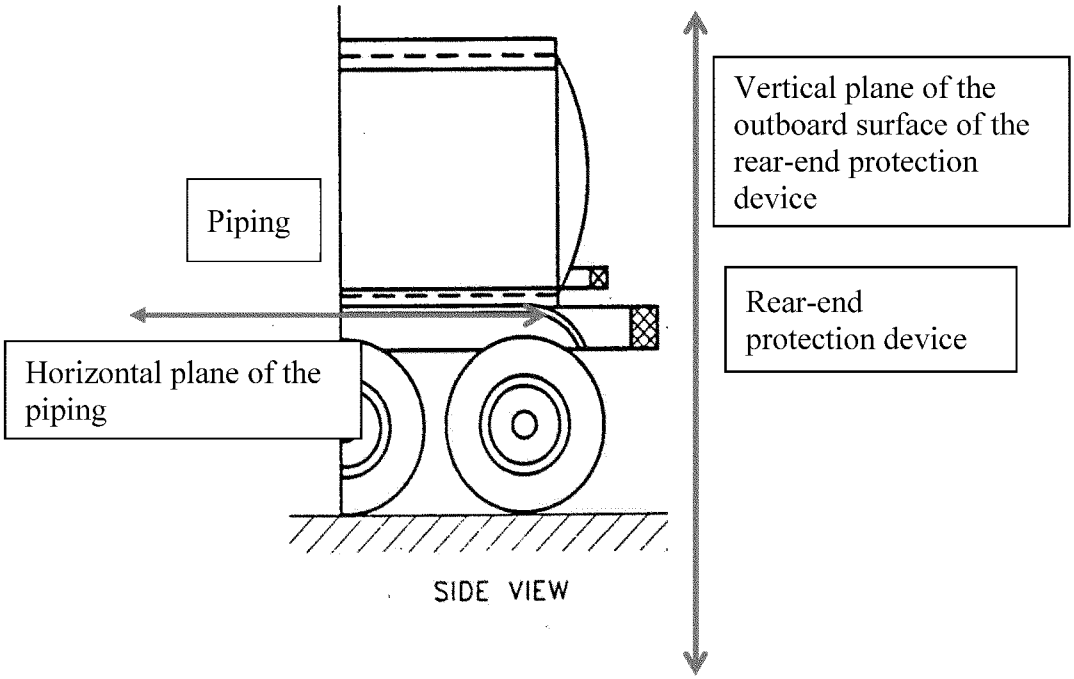
Section 178.345–3

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–3, 178.338–3, and 178.345–3'' for details on the revisions proposed to this section.

Section 178.345–8

This section details accident damage protection for DOT Specification 406, 407, and 412 cargo tank motor vehicles. Paragraph (d) specifies rear-end tank protection, with paragraph (d)(1) describing design requirements for the rear-end cargo tank protection device. PHMSA proposes to split paragraph (d)(1) into two paragraphs—paragraphs (d)(1)(i) and (ii)—to better clarify deflection design requirements and increase readability, which ultimately increases safety. PHMSA proposes that paragraph (d)(1)(i) contains the rear-end cargo tank protection device design requirements for cargo tanks where the rear-end protection device is on the same horizontal plane as the component. PHMSA proposes that paragraph (d)(1)(ii) contains design requirements for a rear-end cargo tank protection device when the component is not on the same horizontal plane. This proposed language is for clarification. Figure 1 details the difference between the vertical plane and horizontal plane.

Figure 1: Section 178.345-8 Difference between Vertical Plane and Horizontal Plane



Paragraph (d)(2) indicates the dimension requirements for the rear-end cargo tank protection device. Paragraph (d)(3) specifies additional design requirements for the rear-end protection device and its attachments on DOT Specification 406, 407, and 412 cargo tank motor vehicles. In paragraphs (d)(2)(i)–(iii) and (3), PHMSA proposes to spell out the dimensions instead of using a numerical value, for grammatical correctness.

During review of cargo tank motor vehicle manufacturers and other facilities that design and install rear-end protection devices, FMCSA inspectors identified that manufacturers who calculate and construct rear-end devices were not properly calculating the 2 ''g'' impact, which is a result of potentially confusing regulations in paragraph (d)(3). As this results in non-compliant rear-end protection devices that fail under impact, PHMSA proposes to revise paragraph (d)(3) to clarify this requirement and ensure the continued safe transportation of hazardous materials. To achieve this clarity, PHMSA proposes to revise the term ''rated payload'' to ''gross vehicle weight rating'' and add a sentence to specify ''the structures supporting the rear-end protection device, including the frame and the attachments to the frame must be capable of withstanding the 2 'g' load.''

Section 178.345–11

This section details requirements for the openings, inlets, and outlets of DOT Specification 406, 407, and 412 cargo tank motor vehicles. Paragraph (b) requires each cargo tank loading/unloading outlet to be equipped with an internal or external self-closing stop valve. PHMSA proposes to revise paragraph (b)(1)(ii) to specify that if the actuating system fails, each loading/unloading outlet must remain securely closed and capable of retaining the cargo tank's lading. This provides

additional clarification that failure is another circumstance where the loading/unloading outlet must remain securely closed if the actuating system fails. This increases safety because if the actuating system fails, the outlet should still be closed and capable of retaining liquid to ensure continued safe transportation of hazardous materials.

See ''Section IV. Section-by-Section Review; Part 178; Sections 178.337–8, 178.338–11, and 178.345–11'' for details on the proposal to add paragraph (b)(1)(iv) to this section.

Section 178.345–13

This section specifies the pressure and leakage test requirements for DOT Specification 406, 407, and 412 cargo tank motor vehicles, with paragraph (a) detailing that the pressure and leakage tests must be in accordance with this section and §§ 178.346–5, 178.347–5, or 178.348–5. PHMSA proposes to revise the language in paragraph (a) to specify that the pressure and leakage tests must be performed by the cargo tank motor vehicle manufacturer. This aligns with current industry practice and provides a clear distinction on the person with responsibility to perform these tests, which increases regulatory compliance and safety.

PHMSA also proposes to add a sentence to specify the leakage test shall be performed after the piping is installed on the cargo tank motor vehicle. PHMSA and FMCSA expect that this aligns with current industry practice, while ensuring the continued safe transport of the cargo tank motor vehicle and reducing the likelihood of a release of hazardous materials.

Section 178.345–14

This section specifies the marking requirements for DOT Specification 406, 407, and 412 cargo tank motor vehicles. Paragraph (a) provides general certification requirements. PHMSA proposes to add a clarifying statement to paragraph (a) that if information is required to be displayed on the name plate, it does not need to be repeated on the specification plate. This is consistent with other DOT specification requirements.

PHMSA also proposes certain editorial amendments in this section. Paragraph (b)(3) indicates that the tank MAWP in psig must be marked on the tank nameplate. In this paragraph, PHMSA proposes to specify that by ''tank,'' the requirement applies to a ''cargo tank.'' Paragraph (c) provides requirements for marking of the specification plate, with paragraphs (c)(6) and (7) requiring the marking of the maximum loading and unloading rates, respectively. PHMSA proposes to revise paragraph (c)(6) to allow for ''NONE'' and paragraph (c)(7) to allow for ''OPEN MH'' or ''NONE'' as an indication of no limit on the loading and unloading rate, respectively.

Lastly, paragraph (d) includes the requirements for a multi-cargo tank motor vehicle. PHMSA proposes to revise this paragraph to refer to the definition of *design type* in § 178.320(b) instead of the ''same materials, manufactured thickness, minimum thickness, and to same specification.'' This revision is intended to clarify the intent of the exception from the requirement to display multiple name plates for compartmented cargo tanks separated by voids. ''Design type'' is a more efficient and simpler phrase to communicate the intent of this exception.

Section 178.345–15

This section details certification requirements for DOT Specification 406, 407, and 412 cargo tank motor vehicles. PHMSA proposes revisions that better align this section with the certification requirements (and proposed changes) in §§ 178.337–18 and 178.338–19.

Paragraph (a) includes requirements for certification documents. In paragraph (a), PHMSA proposes to expand the requirements. This includes requiring that the cargo tank motor vehicle manufacturer must supply, and the owner must obtain, a cargo tank's ASME Form U–1A data report as required by Section VIII of the ASME Code and a Certificate of Compliance stating that the completed cargo tank motor vehicle conforms in all respects to the DOT specification and the ASME Code. As mentioned, this better aligns paragraph (a) with other cargo tank certification requirements in §§ 178.337–18 and 178.338–19.

Paragraph (b)(1) details the signatory requirements of the certificate. Similar to proposed changes in paragraph (a), PHMSA proposes to revise paragraph (b)(1) to specify the certificate must be a Certificate of Compliance signed by an official of the cargo tank motor vehicle manufacturer responsible for compliance, and a DCE.

Lastly, paragraph (e) includes requirements for specification shortages. PHMSA proposes to revise paragraph (e) editorially to better align this paragraph with other cargo tank specification certification requirements. The substantive requirements for cargo tanks manufactured in two or more stages are not changed in this proposal.

Section 178.348–1

This section specifies the general requirements for DOT Specification 412 cargo tank motor vehicles. Paragraph (d) requires a cargo tank with a MAWP greater than fifteen psig must be of circular cross-section. Paragraph (e) specifies ASME construction requirements depending on the MAWP of the cargo tank. Cargo tank manufacturers have expressed confusion over the current regulatory requirements in this section, particularly when a DOT 412 specification cargo tank must be certified to the ASME Code. Therefore, to alleviate this confusion and increase regulatory compliance, PHMSA proposes to revise paragraph (d) to specify when a cargo tank motor vehicle has a MAWP greater than fifteen psig, it must be constructed and certified in accordance with Section VIII of the ASME Code. Subsequently, PHMSA proposes to revise paragraph (e) to specify when a cargo tank motor vehicle has a MAWP of fifteen psig or less, it must be constructed in accordance with Section VIII. PHMSA also proposes to redesignate paragraphs (e)(2)(i)–(viii) as paragraphs (e)(1)–(8) without making any revisions, other than an editorial revision in current paragraph (e)(2)(iii) to spell out the numerical value of 15 psig. These proposed revisions are not intended to amend the intent of the section, but instead increase regulatory clarity.

Part 179

Section 179.2

Section 179.2 is the definition section for tank car specifications in part 179. PHMSA proposes to add introductory text to specify that terms defined in §§ 171.8 and 180.503 for tank car maintenance and qualification also apply to part 179. This will help to address any confusion with defined terms in these related regulatory sections.

In addition, PHMSA proposes to amend the following definitions:

- *Approved:* In paragraph (a)(2), PHMSA proposes to remove the reference to the AAR Tank Car Committee and replace it with a reference to DCE approval. See ''Section II.B.2. Tank Car Design Approval'' for additional details.
- *Tank car facility:* PHMSA proposes to amend this definition to express the original intent that only facilities that qualify tank cars for transportation meet the definition. See ''Section II.B.4. Tank Car Facility Definition'' for additional details.

PHMSA proposes to add the following definitions:

- *Component:* PHMSA proposes to add this definition in paragraph (a)(4) to mean ''service equipment, safety systems, linings or coatings, other elements specifically required by this part and any elements used to achieve a performance standard in this part.'' This new definition is intended to align with commonly understood industry usage and will increase clarity in the HMR.
- *Tank car:* This new definition is proposed for the purposes of construction, maintenance, and qualification in parts 179 and 180. As proposed, *tank car* means ''a tank car tank and all of its components.'' This definition aligns with commonly understood industry usage and will increase clarity in the HMR. To ensure paragraph (a) remains alphabetical, this new definition is proposed to replace the currently reserved paragraph (a)(9).

Section 179.3

Section 179.3 currently prescribes requirements to submit tank car designs to AAR for approval. PHMSA proposes to rename and extensively revise this section to remove the requirement for AAR approval and replace it with a requirement for design approval by a registered tank car DCE. See ''Section II.B.2. Tank Car Design Approval'' for additional details. PHMSA proposes that one Design Approval Certificate issued for the tank car or service equipment will cover all tank cars or service equipment built to an approved design, material and construction, or modification, provided the tank cars or service equipment are identical. When ownership of a tank car is transferred, the new owner must obtain the Design Approval Certificate from the previous owner or Design Certifying Engineer for the tank car to remain in service. Builders and shippers may apply for special permits for unapproved tanks and equipment, in accordance with the special permit procedural requirements in §§ 107.101–107.127.

Section 179.4

Section 179.4 currently prescribes requirements for proposing a new tank car specification to AAR. PHMSA proposes to revise this section. The role of the AAR TCC in the review of new tank car specifications is proposed to be replaced with review by a registered tank car DCE. Proposals for new tank car specifications must first be submitted for review by a DCE. If the DCE determines the new specification design is suitable, then the designer of the new specification design must then apply to PHMSA for a DOT–SP to construct and use the tank cars or submit a petition for rulemaking to add the new specification to the HMR. See ''Section II.B.2. Tank Car Design Approval'' for additional details.

Section 179.5

Section 179.5 currently prescribes requirements for the tank car Certificate of Construction. PHMSA proposes to change the name of the section from ''Certificate of construction'' to ''Design Approval Certificate'' and extensively revise this section to reflect the new DAC requirements. PHMSA proposes that the new DAC requirements generally mirror the information and drawings currently required to be submitted to AAR on AAR Forms 4–2 or 4–5, for tank car tanks and service equipment, respectively. PHMSA proposes that the DCE must ensure all required information is present on the DAC, review the materials, certify compliance with the HMR by signing the certification statement, and submit the DAC to the tank car owner.

While generally mirroring the information required on the AAR Form 4–2 or 4–5, PHMSA proposes that instead of requiring the initial commodity (as currently required on AAR Form 4–2 or 4–5), the DAC must list all of the materials intended for transportation in the tank car and service equipment. This commodity information is critical to determining appropriate materials of construction and fitting arrangements for the tank car design, among other design considerations. If a tank car user decides to use the tank car or service equipment to transport a commodity not listed on the DAC, PHMSA proposes that the DCE must modify the DAC to approve the transportation of the new material before the tank car or service equipment may be used for the new commodity. As proposed, the DCE must evaluate the design of the tank car and service equipment, including but not limited to material compatibility, design pressure, operating temperature, and service life when determining whether the tank car or service equipment is appropriate for the new commodity.

See ''Section II.B.2. Tank Car Design Approval'' for additional details on these proposed changes.

Section 179.6

Section 179.6 prescribes requirements for tank car repairs and alterations. PHMSA proposes a minor revision to this section. PHMSA proposes to no longer require compliance with those sections of AAR Specifications for Tank Cars Appendix R that require AAR approval for tank car repairs. Rather, PHMSA proposes that for all tank car repairs not specifically described in Appendix R, DCE approval is required.

Section 179.7

Section 179.7 prescribes requirements for a tank car facility QAP. PHMSA proposes to no longer require tank car facilities to seek AAR approval for QAPs. PHMSA proposes that each tank car facility must register with PHMSA under proposed part 107 subpart J and certify that it maintains QAP that meets the requirements of parts 107 and 179.

PHMSA proposes several additional revisions to the QAP requirements:

- Remove reference to ''repair'' in paragraphs (a)(2), (b)(3), (b)(5), and (f) because ''repair'' is already encompassed in the § 180.503 definition of *maintenance.*
- Remove ''program'' in paragraph (a)(2), to clarify that the QAP must identify non-conformities in the tank car during manufacture, inspection, testing, qualification, and maintenance of the tank car.
- Add the phrase ''qualification and maintenance'' in paragraph (b)(3) to align the scope of the QAP with qualification.
- Revise paragraph (b)(4) to require that the tank car facility's QAP covers all materials and components that are installed to create the tank car. The tank car facility that qualifies the car is responsible for all activities prior to qualification.
- Add the word ''applicable'' to paragraph (b)(8) to indicate there are requirements in the AAR Specifications for Tank Cars that are no longer applicable to tank car facilities (*e.g.,* approval requirements).
- Remove ''AAR'' from paragraph (d) because PHMSA proposes to no longer require AAR approval. See ''Section II.B.2. Tank Car Design Approval'' for additional details.
- Revise paragraph (f) to add a requirement that a tank car facility must maintain a valid tank car facility registration in accordance with part 107, subpart J.

See ''Section II.B.3. Tank Car Facility Quality Assurance Program'' for further details on the proposed changes to QAP requirements.

Section 179.10

Section 179.10 discusses requirements for tank mounting. PHMSA proposes to require that tank mounting arrangements meet the requirements of AAR Specifications for Tank Cars Chapter 6 in currently reserved paragraph (b). This will address NTSB Recommendation R–12–

007, which recommends that PHMSA address deficiencies in tank car center sill or draft attachment designs by adopting AAR's revised attachment requirements. The 2014 edition of AAR Specifications for Tanks Cars proposed for incorporation contains the recommended revised center sill and draft attachment requirements, which addresses separate NTSB Recommendation R–12–009 issued to AAR.

Section 179.11

Section 179.11 prescribes the requirements for tank car welding procedures. Paragraph (a) currently requires that welding procedures, welders, and fabricators be approved by AAR. PHMSA proposes to revise paragraph (a) to require that welding procedures, welders, and fabricators must meet the requirements in AAR Specifications for Tank Cars Appendix W, except for compliance with paragraph 1.2. Appendix W, which is already incorporated by reference into the welding-specific sections in part 179 (*e.g.,* § 179.100–9). If this proposal were adopted in a final rule, compliance with paragraph 1.2 of Appendix W, which requires AAR certification for the facility at which the welding occurs, would no longer be required. Facilities that conduct fusion welding on tank cars that meet the definition of ''tank car facility,'' as proposed in this NPRM, must register with PHMSA. See ''Section II.B.4. Tank Car Facility Definition'' and ''Section II.B.5. Tank Car Facility and Design Certifying Engineer Registration'' for further details.

Section 179.24

This section discusses requirements for permanent identification plates mounted on the inboard surfaces of the body bolsters of a tank car. PHMSA proposes to revise paragraph (a)(2), to remove reference to the AAR form. Additionally, PHMSA proposes to remove and reserve paragraph (a)(3)(i), which, requires stamping the AAR Number on the identification plates. PHMSA proposes these edits to conform to the proposal to replace AAR TCC approval with approval by a tank car DCE. Specifically, PHMSA proposes to remove reference to AAR Form 4–2 in paragraphs (a)(2), (a)(2)(i), (a)(2)(iv), (a)(2)(v), (a)(2)(viii), and (a)(3)(i), as PHMSA proposes to replace the AAR Form 4–2 requirement with a DAC. Additionally, PHMSA proposes to remove and reserve paragraph (a)(2)(iii) to remove the requirement to stamp the AAR approval number as this has no equivalent in the DAC.

Sections 179.100–9, 179.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18

These sections deal with welding requirements for tank cars and incorporate by reference the AAR Specifications for Tank Cars (M–1002) Appendix W. In each section, PHMSA proposes to add language indicating compliance with paragraph 1.2 of Appendix W is not required, because that paragraph of Appendix W requires AAR certification for the facility at which welding occurs. Facilities that conduct fusion welding on tank cars that meet the definition of ''tank car facility,'' as proposed in this NPRM, must register with PHMSA. Tank car facilities that qualify tank cars that have undergone welding at another location are responsible for ensuring that the welding operations are conducted in accordance with Appendix W. See ''Section II.B.4. Tank Car Facility Definition'' and ''Section II.B.5. Tank Car Facility and Design Certifying Engineer Registration'' for further details. Additionally, in §§ 179.100–9, 179.200–10, and 179.220–10, PHMSA proposes to remove the sentence requiring that welding procedures, welders, and fabricators be approved. Welding procedures, as well as welder and fabricator qualification must be addressed in a tank car facility's quality assurance program. See ''Section II.B.3. Tank Car Facility Quality Assurance Program'' for additional details.

Section 179.100–9

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.100–10

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.100–12

Section 179.100–12 outlines the use of manway nozzles, covers, and protective housing on rail cars. Paragraph (c) details requirements for bolting the protecting housing to the manway cover. PHMSA proposes to revise § 179.100–12(c) to permit the use of an alternative means of connecting the manway protection housing to the tank car. See ''Section II.F. P–1724'' for further discussion on this proposed change. PHMSA also proposes a minor grammatical amendment to paragraph (c) to spell out ''seventy percent'' instead of a numerical value.

Section 179.100–18

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.102–3

Section 179.102–3 prescribes additional requirements for pressure tank cars containing poisonous-by-inhalation material. PHMSA proposes to IBR the requirements of section 2.2.1.2 of Chapter 2 of the AAR Specifications for Tank Cars, M–1002. Specifically, PHMSA proposes to require tank cars manufactured after the effective date of an eventual final rule that transport poisonous-by-inhalation hazardous material have tank car heads and shells that are Charpy impact tested in accordance with the requirements of section 2.2.1.2.

Please note that the exception in AAR Specifications for Tank Cars Chapter 2 section 2.2.1.2 exempts shell and head material intended for low temperature service that is subject to longitudinal Charpy impact testing at −50 °F from the transverse Charpy impact test. Therefore, steel used for the head and shell of hydrogen chloride tank cars is not subject to the transverse Charpy impact test proposed here but remains subject to the longitudinal Charpy impact testing at −50 °F in accordance with § 179.102–17.

This proposed change responds to NTSB recommendation R–19–001,[52] which recommended that PHMSA implement enhanced fracture toughness requirements for tank heads and shells for tank cars transporting poisonous-by-inhalation material. Although not incorporated by reference in the HMR, tank car manufacturers have been subject to this test requirement since 2005 through AAR interchange standards. Therefore, PHMSA expects that this proposed amendment will not place any additional burden on tank car manufacturers while improving safety

[52] See NTSB Safety Recommendation R–19–001: *https://www.ntsb.gov/safety/safety-recs/recletters/R-19-001-005.pdf.*

by increasing clarity on steel toughness requirements for PIH tank cars.

Section 179.103–5

Section 179.103–5 prescribes requirements for bottom outlets for DOT–114A tank cars. In accordance with the proposal to remove all reference to approval by the AAR, PHMSA proposes to remove the phrase ''approved by the AAR Committee on Tank Cars'' in paragraph (b)(1) for permanent attachment of supplementary exterior fittings. As proposed, a DCE will fill the approval role previously delegated to AAR. See ''Section II.B.2. Tank Car Design Authority'' for additional details.

Section 179.200–7

This section specifies authorized materials of construction for non-pressure tank car tanks (Classes DOT–111AW, 115AW, and 117AW). Paragraph (b) specifies allowable steels for the carbon steel plate. Currently, ASTM A 537 steel is not authorized in paragraph (b).[53] However, ASTM A 537 steel has similar properties to ASTM A 516 steel, which is currently authorized in paragraph (b). Furthermore, ASTM A 537 steel is currently authorized in § 179.100–7 for pressure tank cars. PHMSA has also received a petition requesting authorization to use ASTM A 537 steel in construction of non-pressure tank cars (P–1760; Baier Rail).[54] Lastly, PHMSA has issued DOT–SP 20908 to allow for the use of ASTM A 537 steel for non-pressure tank car tanks.[55] Therefore, PHMSA proposes to add ASTM A 537 steel to the table in paragraph (b). Please note, DOT–SP 20908 requires radiographic examination for 1 out of every 50 nozzle groove weld joints produced in accordance with the special permit. This condition is a requirement associated with the 7.5-inch nozzle extension authorized in the special permit; therefore, we do not propose to adopt this condition into the HMR for tank cars and appurtenances constructed solely from ASTM A 537 steel. PHMSA seeks comment on this proposal.

Section 179.200–10

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.200–11

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.200–17

Section 179.200–17 prescribes requirements for bottom outlets for DOT–111 and DOT–117 non-pressure tank cars. In accordance with the intent to remove all references to approval by the AAR TCC, PHMSA proposes to remove the phrase ''by the AAR Committee on Tank Cars.'' A DCE will fill the approval role previously delegated to AAR. See ''Section II.B.2. Tank Car Design Authority'' for additional details.

Section 179.200–22

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.220–10

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.220–11

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.220–15

Section 179.220–15 details requirements for support systems for DOT–115 tank cars. PHMSA proposes to remove the phrase ''of approved design'' from paragraph (b) for cushioning devices. It is PHMSA and FRA's understanding that AAR approvals are not currently issued for cushioning devices. Therefore, PHMSA proposes that a tank car manufacturer may certify the cushioning device tested to meet the performance standards of paragraph (b) without requiring approval from the DCE. Safety will be maintained by continuing to require that all systems used to meet the requirements of this section must be tested by the manufacturer to demonstrate their ability to limit body forces to 400,000 pounds maximum at a ten miles per hour impact. PHMSA also proposes a minor editorial change to spell out ''ten miles per hour'' instead of the numerical value ''10.''

Section 179.220–18

Section 179.220–18 prescribes requirements for bottom outlets for DOT–115 tank cars. In accordance with the proposed removal of all reference to approval by the AAR TCC, PHMSA proposes to remove the phrase ''by the AAR Committee on Tank Cars.'' A DCE will fill the approval role previously delegated to AAR. See ''Section II.B.2. Tank Car Design Authority'' for additional details.

Section 179.300–9

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.300–10

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.400–5

Section 179.400–5 prescribes requirements for weld-impact test results. PHMSA proposes an editorial correction to this section to insert the required language to make the IBR of Appendix W valid. It appears the omission of IBR language was an oversight, and PHMSA proposes to correct it. Additionally, PHMSA proposes to add language indicating that compliance with paragraph 1.2 of Appendix W is not required, because that section requires AAR approval. See ''Section II.B.6. AAR Specifications for Tank Cars Incorporation by Reference'' for additional details.

[53] See Letter of Interpretation Reference No. 19–0076: *https://www.phmsa.dot.gov/regulations/title49/interp/19-0076.*

[54] See *https://www.regulations.gov/document/PHMSA-2021-0101-0001.*

[55] See DOT–SP 20908: *https://www.phmsa.dot.gov/approvals-and-permits/hazmat/file-serve/offer/SP20908.pdf/offerserver/SP20908.*

Section 179.400–6

Section 179.400–6 prescribes bursting and buckling pressure requirements for the outer jacket of a cryogenic liquid tank car. PHMSA proposes to fix an editorial error and IBR Chapter Six of AAR Manual of Standards and Recommended Practices, Section C–II Specifications for Design, Fabrication and Construction of Freight Cars, rather than Chapter Six of AAR Manual of Standards and Recommended Practices, Section C–III, Specifications for Tank Cars, Specification M–1002. Section 6.2 does not exist in C–III, while section 6.2 is the relevant section in C–II; PHMSA has identified that this error dates back to the creation of § 179.400–6 in final rule HM–115.[56] PHMSA expects that this editorial change will increase clarity without creating any additional burden on DOT–113 manufacturers.

Section 179.400–11

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.400–12

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.400–13

Section 179.400–13 details requirements for support systems for cryogenic liquid tank cars. PHMSA proposes to remove the phrase ''of approved design'' from paragraph (b) for cushioning devices. It is PHMSA and FRA's understanding that approvals are not currently issued for cushioning devices. Therefore, PHMSA proposes a tank car manufacturer may certify the cushioning device tested to meet the performance standards of paragraph (b) without requiring approval from the DCE. Safety will be maintained by continuing to require that all systems used to meet the requirements of this section must be tested by the manufacturer to demonstrate their ability to limit body forces to 400,000 pounds maximum at a ten miles per hour impact. In addition, PHMSA proposes a minor editorial amendment to spell out ''ten miles per hour'' as opposed to the numerical value.

Section 179.400–15

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.400–18

See ''Section IV. Section-by-Section Review; Part 179; Sections 179.100–9, 178.100–10, 179.100–18, 179.200–10, 179.200–11, 179.200–22, 179.220–10, 179.220–11, 179.300–9, 179.300–10, 179.400–11, 179.400–12, 179.400–15, and 179.400–18'' for details on the revisions proposed to this section.

Section 179.400–19

Section 179.400–19 prescribes requirements for valves of cryogenic liquid tank cars. PHMSA proposes to remove the separate approval requirement for valve packing in paragraph (a)(2). The DCE will evaluate valve packing material in the valve approval process.

Section 179.500–17

Section 179.500–17 prescribes marking requirements for DOT 107A seamless steel tank cars. PHMSA proposes to remove the reference to the AAR Bureau of Explosives as it is obsolete because they no longer perform this function.

Section 179.500–18

Section 179.500–18 discusses recordkeeping for DOT 107A seamless steel tank cars. PHMSA proposes several revisions to remove obsolete references to approvals issued by AAR's Bureau of Explosives from paragraphs (a) and (b)(6) and update the section to reference the DCE in paragraph (c). The reference to AAR Bureau of Explosives is obsolete because they no longer perform this function, and PHMSA proposes to require DCE approval of tank car designs, rather than approval by AAR TCC.

Appendix B to Part 179

Appendix B to part 179 specifies procedures for conducting simulated pool and torch-fire testing of thermal protection systems, as required by § 179.18(c). Review of test results submitted to the Department show there are some inconsistencies in the application of the test due to the lack of certain parameters for clarity in the procedures in Appendix B. PHMSA proposes the following revisions to ensure consistent and repeatable application of the tests, which will ultimately enhance safety. These proposed revisions received a consensus vote during the May 25, 2017, RSAC meeting and were offered to PHMSA and FRA for consideration.

Paragraph 1: PHMSA proposes to add additional text to clarify that the sample of thermal resistance material used shall be identical (within measurement error) for each test performed under Appendix B in terms of thickness, and thermodynamic and physical properties.

Paragraph 2(a)(1): PHMSA proposes to revise this paragraph to specify the location and frequency of measurements of flame temperature throughout the duration of the test, and that calibration tests must be performed with the steel plate in position.

Paragraph 2(a)(2): PHMSA proposes an editorial change to add metric units to the plate dimensions, which is consistent with dimensions in this paragraph.

Paragraph 2(b)(6): PHMSA proposes to revise this paragraph to add language indicating the consecutive tests must be conducted separately and at different times.

Paragraph 3(a)(1): PHMSA proposes to revise this paragraph to indicate the location and frequency of measurements of flame temperature throughout the duration of the test, and that calibration tests must be performed with the steel plate in position. PHMSA proposes that the temperature and torch velocity must be measured at a distance of not more than 15 cm (6 in) from the test sample surface, along the axis of the fire.

Paragraph 3(a)(2): PHMSA proposes an editorial change to add metric units to the plate dimensions, consistent with dimensions in this paragraph.

Paragraph 3(b)(6): PHMSA proposes to revise this paragraph to add language indicating that the consecutive tests must be conducted separately and at different times.

Part 180

Section 180.3

Section 180.3 details general requirements for the continuing qualification of packagings. Paragraph (b)(3) specifies that test dates displayed in association with certain markings may not be marked unless they are appropriate. PHMSA proposes to add DOT–SP markings to the list of markings in paragraph (b)(3). This proposal provides clarity, as these markings are currently authorized but not listed in this paragraph.

PHMSA also proposes to add paragraphs (c) and (d) to specify

[56] 48 FR 27674 (Jun. 16, 1983).

additional provisions that are not authorized under this section. Paragraph (c) indicates that a person may not mark that a package has passed a test or inspection if it has not actually passed that test or inspection. Paragraph (d) specifies that no person shall falsify a document or marking indicating that a packaging has passed a test or inspection. Both of these paragraphs provide additional clarity and ensure increased safety; they do not add any new restrictions, as these actions were not and are not authorized prior to publication of this rulemaking.

Section 180.403

This section provides definitions for the qualification and maintenance of cargo tanks. PHMSA proposes to revise the following § 180.403 definitions:

- *Repair:* PHMSA proposes to utilize the existing definition of *rebarrelling* to better define the term *repair.* As defined in § 180.403, *rebarrelling* means ''replacing more than 50 percent of the combined shell and head material of a cargo tank.'' Alternatively, in the event that less than 50 percent of the combined shell and head material is replaced, the process is considered a repair. Therefore, to remove any ambiguity, PHMSA proposes to revise *repair* to include that it means the replacement of 50 percent or less of the combined shell and head material of a cargo tank. Finally, PHMSA proposes a minor editorial revision to move the word ''and'' to connect the second and third exclusion clauses. This proposed edit corrects a minor drafting error.

The following definitions are proposed to be added to § 180.403:

- *Certification Plate:* As previously discussed, there has been considerable confusion regarding the use of ''name plate'' or ''specification plate.'' This uncertainty is amplified when considering the challenges associated with mounting a used ASME Code cargo tank to a new chassis. PHMSA is proposing the addition of definitions for ''Name Plate'' and ''Specification Plate'' into § 178.320; however, these terms do not apply to a data plate attached to a cargo tank that is still in use but is no longer authorized for construction (as identified by § 180.405(c)). The correct term for a data plate attached to this type of tank is ''certification plate.'' Therefore, PHMSA proposes to define ''certification plate'' to mean a data plate containing the applicable markings provided in the original specifications for cargo tanks no longer authorized for construction (as identified in § 180.405(c)), and permanently attached to the cargo tank or integral supporting structure by the manufacturer. The markings on this plate are certification by the manufacturer that the cargo tank or the cargo tank motor vehicle has been designed, constructed, and tested in accordance with the applicable specification.
- *Maintenance:* PHMSA proposes to add this definition for ease of understanding and reading as the term ''maintenance'' is used throughout part 180, subpart E but it is not currently defined and PHMSA expects this proposed definition will increase clarity without reducing safety. PHMSA proposes that *Maintenance* means ''the replacement of components that do not involve welding on a cargo tank wall, on specification cargo tanks or cargo tank motor vehicles.'' This aligns with the current definition of *repair* and *rebarelling* as both of these functions involve welding, while as proposed, *maintenance* means replacement of components that does not involve welding.
- *Objectively reasonable and articulable belief:* PHMSA proposes to add a definition for the phrase ''Objectively reasonable and articulable belief.'' This means ''a belief based on particularized and identifiable facts that provide an objective basis to believe or suspect that a cargo tank or series of cargo tanks may be in an unsafe operating condition.'' This phrase will be added as a standard in § 180.407(b)(5), as a condition that requires test and inspection of a cargo tank, replacing ''probable cause.'' This phrase and definition align with existing language for tank cars in part 180 subpart F. The intent of this revision is to clarify the standard by which a FMCSA investigator or other representative of the Department may require a cargo tank to be inspected and tested prior to further transportation.
- *Set pressure:* PHMSA and FMCSA identified potential confusion because the terms ''set pressure'' and ''set to discharge pressure'' are used in various places in the HMR without a corresponding definition in § 180.403. In order to increase regulatory clarity and avoid this confusion, PHMSA proposes to define *set pressure* to mean the pressure of the PRD or pressure relief system at which it starts to open, allowing discharge. This aligns with the definition of *set pressure* in § 178.345–10(d) of the HMR.

Section 180.405

This section details requirements for the qualification of cargo tanks. Paragraph (b) outlines authorized cargo tank specifications and provides requirements for how to recertify cargo tanks that are no longer authorized to be manufactured (*e.g.,* MC 306, MC 307 or MC 312 specification cargo tanks). However, the HMR does not specify how to replace a specification plate when it is missing. PHMSA has received comments from industry and enforcement communities who have struggled in addressing this situation because of its absence from the HMR. Therefore, PHMSA proposes to provide standards for the replacement of DOT specification certification plates with requirements for different scenarios in new paragraph (b)(3), along with a documentation requirement to provide traceability. These proposed scenarios reduce regulatory uncertainty while ensuring that cargo tanks can safely transport hazardous materials.

Paragraph (c)(2) details requirements for modification of PRDs and outlets. PHMSA proposes an editorial amendment to paragraph (c)(2) by specifying that the paragraph applies to ''cargo tank motor vehicles,'' as opposed to just ''cargo tanks'' for regulatory consistency. Additionally, PHMSA proposes to remove paragraphs (c)(2)(i)–(vii) and instead in paragraph (c)(2), reference §§ 173.33(d) and 180.405(h), as these regulations are duplicative. By removing duplicative regulations, PHMSA eliminates any potential inconsistency between the same requirements. These proposed revisions are not intended to change the current regulatory requirements.

PHMSA also proposes to add paragraph (c)(3) to specify that ''a cargo tank motor vehicle manufactured and certified prior to the dates listed in table 1 and table 2 of [§ 180.405] may be mounted on a different truck chassis provided the mounting and certification is done in accordance with this subchapter.'' This new proposed paragraph provides regulatory clarity and allows for flexibility in mounting a cargo tank that is no longer authorized to be manufactured onto a new chassis, enhancing the safe transportation of hazardous materials in cargo tanks.

Paragraph (h)(3) specifies requirements for modifying reclosing PRDs to more current cargo tank specifications. PHMSA proposes to amend this paragraph editorially by adding a reference to § 173.33(d) and indicating that this requirement applies to a ''cargo tank motor vehicle,'' instead of just a ''cargo tank.''

Paragraph (j) indicates requirements for withdrawal of a specification cargo tank certification. PHMSA proposes to revise this paragraph to indicate when the specification plate is removed, obliterated, or securely covered, it must withstand conditions normally incident

to transportation. FMCSA has encountered cargo tank motor vehicles where adhesive tape or other non-durable method has been used to cover the specification plate but the covering has worn off or been removed; thus, the cargo tank may indicate that it meets a specification when it is no longer in compliance. This proposal is intended for clarification purposes and thus, will enhance safety, as the specification plate should not currently be displayed if the cargo tank does not meet the appropriate specification referenced. PHMSA also proposes minimal editorial amendments to this paragraph to align with the rest of the HMR. Specifically, PHMSA proposes to replace ''cargo tank'' with ''cargo tank motor vehicle,'' ''certificate'' with ''Certificate of Compliance,'' and re-order the references to §§ 180.407 and 180.413 so that § 180.407 appears first.

Lastly, PHMSA proposes to add paragraph (p) to specify that at the next external visual inspection after the effective date of this final rule, Registered Inspectors must inspect the mechanical means of remote closure to ensure that access or means of manual operation is unobstructed from operation. This proposal mirrors the language proposed in §§ 178.337–8, 178.338–11, and 178.345–11. FMCSA has encountered cargo tank motor vehicles where the mechanical means of remote shut off device has been obstructed by various appurtenances and equipment that were added after the date of manufacture. As obstructions to the manual remote emergency shut off device may result in an incident, PHMSA proposes to add this paragraph in order to address this safety concern.

Section 180.407

This section contains requirements for properly conducting tests and inspections on cargo tank motor vehicles. Since 2003 (when PHMSA last published a cargo tank-specific rulemaking) PHMSA has issued more than 50 letters of interpretation related to § 180.407. In addition, FMCSA issued over 550 violations related to this section in 2019 alone. In listening sessions, enforcement actions, and questions raised during FMCSA/NTTC Cargo Tank Workshops, the cargo tank regulated community has expressed concerns regarding the implementation of this section. PHMSA and FMCSA acknowledge that the requirements of § 180.407, as currently written, generate confusion and create compliance issues in the cargo tank regulated community. To address this confusion and increase understanding of, and compliance with, cargo tank testing and inspection requirements, PHMSA proposes to amend certain paragraphs, as described below. Ultimately, PHMSA expects that by reducing confusion and providing increased clarity, these proposed amendments will increase safety. Please note that paragraphs not discussed below but contained in the proposed regulatory text, do not contain proposed changes, but rather are included in the proposed regulatory text for the convenience of the **Federal Register**.

Paragraph (a)(1)

This paragraph currently specifies a cargo tank constructed in accordance with a DOT specification, for which a test or inspection has become due, may not be filled and offered for transportation or transported until the test or inspection has been successfully completed. PHMSA proposes several revisions to provide more regulatory clarity, which ensures further compliance with the HMR.

PHMSA proposes to specify this paragraph applies to a ''cargo tank motor vehicle'' instead of a ''cargo tank'' as this is more technically correct and aligns with other proposals.

PHMSA also proposes to indicate this paragraph also applies to cargo tank motor vehicles that may not be a DOT specification but may be otherwise subject to this section. This increases safety by ensuring that a cargo tank transporting hazardous materials is not filled and offered if the part 180 subpart E test or inspection date has passed, regardless if it is a specification cargo tank. For example, § 180.407(h) details requirements for certain non-specification cargo tank leakage test requirements. This proposal ensures these non-specification cargo tank motor vehicles may not be filled and offered for transportation if the leakage test date has passed and the cargo tank motor vehicle has not been retested.

Lastly, PHMSA proposes to indicate more clearly that a cargo tank motor vehicle filled prior to the test or inspection due date may still be offered for transportation or transported after the test or inspection due date has passed, as also indicated in § 173.33(a)(3). This is currently authorized in the HMR and this proposal reinforces that allowance. Furthermore, while § 173.33(a)(3) refers to § 180.407(a)(1), there is no reciprocal reference to § 177.33(a)(3) in § 180.407(a)(1). Therefore, PHMSA proposes to reinforce the allowance for a cargo tank to be offered for transportation after the inspection or test date has passed, as long as the cargo tank was filled prior to the inspection or test expiration, and add a reference to § 173.33(a)(3) to complete the cross-reference. As this is currently authorized, this proposed revision provides clarity without reducing safety.

Paragraph (a)(2)

This paragraph specifies that, except during a pressure test, a cargo tank may not be subjected to a pressure greater than its design pressure or MAWP. PHMSA proposes an editorial amendment to specify that the MAWP referenced in this requirement is the one marked on the name plate or specification plate. These editorial revisions will enhance clarity, and PHMSA does not expect they will reduce safety.

Paragraph (a)(5)

This paragraph requires a cargo tank to be marked in accordance with § 180.415 when it has passed a test or inspection. PHMSA proposes an editorial amendment to change ''cargo tank'' to the more appropriate ''cargo tank motor vehicle.''

Paragraph (a)(6)

This paragraph contains requirements for a cargo tank that has failed a prescribed test or inspection. PHMSA proposes to specify that the paragraph applies to a ''cargo tank motor vehicle'' instead of a ''cargo tank'' as an editorial amendment.

While paragraph (a)(6) only applies to a cargo tank that has failed a prescribed test or inspection, there is a potential regulatory gap for a cargo tank that was improperly tested. It is possible that an improperly tested cargo tank motor vehicle may have failed the prescribed test or inspection if it had been properly conducted. To address this safety gap, PHMSA proposes to require that paragraph (a)(6) also applies to a cargo tank motor vehicle that ''has not been properly inspected.'' Therefore, if it has been improperly inspected, the cargo tank motor vehicle can be retested or taken out of hazardous materials service.

Paragraph (a)(6)(ii)

This paragraph specifies when meeting the criteria in paragraph (a)(6) (*e.g.,* a cargo tank has failed a prescribed test or inspection), a cargo tank must be removed from hazardous materials service and the specification plate must be removed or covered in a secure manner. PHMSA proposes to revise this paragraph to specify when the specification plate is covered, it must be covered in a manner that can, at a minimum, withstand conditions normally incident to transportation. As noted in ''Section IV. Section-by-Section

Review; Part 180; Section 180.405,'' FMCSA has encountered cargo tank motor vehicles where adhesive tape or another non-durable method was used to cover the specification plate, but the covering had worn off or been removed. Therefore, the specification plate indicates the cargo tank motor vehicle meets a specification when it is actually no longer in compliance. This proposal aims to reduce the likelihood of this occurring and increase safety. Note that this is a clarifying amendment and even though not in the regulations, it is currently good practice to cover the specification plate in such a way that ensures any covering can withstand conditions normally incident to transportation.

Paragraph (a)(7)

PHMSA proposes to add this paragraph to specify all equipment and instruments used in part 180 subpart E tests and inspections must be calibrated and maintained according to the manufacturer's instructions. FMCSA has found numerous instances of poorly maintained or uncalibrated equipment being used to qualify cargo tank motor vehicles. This change aims to eliminate any errors in testing caused by poorly maintained equipment and ultimately, increase safety. Additionally, to ensure compliance with this requirement, PHMSA proposes to require the facility to maintain records of the calibration and to retain a copy of the two most recent calibrations, which must be made available to a representative of the Department upon request.

Paragraph (a)(8)

PHMSA proposes to add paragraph (a)(8) to allow for the use of video cameras or fiber optic equipment during any test or inspection, provided that all of the required areas and elements that need to be tested or inspected can be viewed and evaluated in accordance with part 180 subpart E. This provides flexibility in performance of tests and of inspections, while maintaining an equivalent level of safety. Records of the test and inspections must be recorded, as currently required in § 180.417, but there is no requirement to maintain the video camera recordings.

Paragraph (a)(9)

PHMSA proposes to add this paragraph to require the use of the hydrostatic test method for the pressure test whenever the test pressure exceeds 50 psig, except for DOT Specification MC 338 cargo tank motor vehicles in cryogenic service. Essentially, this new paragraph restricts the use of pneumatic testing whenever the test pressure exceeds 50 psig. There is a significant reduction in the potential for serious injury or death when comparing the pneumatic test to the hydrostatic test at high pressures, due to the incompressible properties of water. Therefore, this proposal ensures that a hydrostatic test is used to test cargo tanks at high pressures to address the high potential safety concern from use of pneumatic testing. In addition, this new paragraph mirrors the limitation for testing of small gas cylinders pneumatically.

PHMSA also proposes to specify that ''in all pressure and leakage tests, suitable safeguards must be provided to protect personnel should a system failure occur.'' This proposed requirement aims to minimize the risks and reduce the impact of incidents, including the sudden release of compressed air or liquid, and flying debris, associated with performance of pressure tests.

Paragraph (a)(10)

PHMSA proposes to add this paragraph to require that the Registered Inspector must consult with the owner or motor carrier, as appropriate, to determine if materials corrosive or reactive to the cargo tank or components were transported in the cargo tank motor vehicle prior to or since the last test or inspection was performed. The Registered Inspector shall indicate this information on the § 180.415 report and use the information to determine the proper tests and inspections to be conducted on the cargo tank motor vehicle. Cargo tank motor vehicles that have transported material corrosive to the tank are subject to a thickness test, and more frequent internal visual inspections to ensure the lading has not reduced the thickness of the tank below the minimum required thickness. Registered Inspectors often comment to FMCSA that they have no way of determining what the cargo tank motor vehicle has transported since the last inspection, and therefore, this proposed requirement aims to remedy the concerns raised by Registered Inspectors. This also ensures the proper tests and inspections are conducted on the cargo tank motor vehicle based on the hazardous materials that were transported in the cargo tank, which increases the future safe transportation of the cargo tank motor vehicle.

Paragraph (a)(11)

This new proposed paragraph requires all sources of spark, flame, or glowing heat within the area of enclosure where the tests and inspections are conducted (including any heating system drawing air therefrom) are extinguished, made inoperable, or rendered explosion-proof by a suitable method prior to any tests or inspections subject to this subpart. PHMSA and FMCSA expect that this proposal will reduce the potential for any incidents involving spark, flame, or glowing heat. PHMSA and FMCSA expect that this new paragraph reduces the potential for any incidents involving sparks, flames, or glowing heat while conducting cargo tank tests and inspections and therefore, increases safety.

Paragraph (b)(1)

This paragraph details certain tank defects that require a cargo tank to be tested and inspected without regard to any other test or inspection requirements. PHMSA proposes to revise this paragraph by adding ''bulges'' to the list of tank defects. If the cargo tank shows evidence of bulges, it demonstrates a potential failure in the structural integrity of the cargo tank. Therefore, to ensure continued safe transportation of hazardous materials in cargo tanks, PHMSA proposes to add this additional tank defect to the list that requires test and inspection. In addition, PHMSA proposes editorial amendments to this paragraph including adding a reference to the definition of minimum thickness in § 178.320, and other grammatical edits for increased readability.

Paragraph (b)(3)

This paragraph specifies a cargo tank that has been out of hazardous materials transportation service for a period of one year or more must be pressure tested in accordance with § 180.407(g), prior to returning to service. PHMSA proposes minor editorial edits to this paragraph, including specifying that this paragraph applies to a ''cargo tank motor vehicle'' instead of ''cargo tank'', specify ''one year'' as a numerical value for grammatical purposes, and that the pressure test is required prior to further use ''in hazardous materials transportation.'' These editorial amendments help to increase regulatory consistency and clarity, thus ensuring safe transportation.

Paragraph (b)(5)

This paragraph currently states that a specification cargo tank must be tested and inspected if the Department so requires based on the existence of probable cause that the cargo tank is in an unsafe operating condition. The term ''probable cause'' normally refers to criminal matters and not necessarily an appropriate standard to apply to

scenarios requiring test and inspection of cargo tanks. Therefore, PHMSA proposes to replace ''probable cause'' with ''objectively reasonable and articulable belief.'' This standard is currently in use in part 180 subpart F for tank cars, and PHMSA believes it is also the proper standard for cargo tanks in part 180 subpart E.

PHMSA takes the position that if an investigator inspects a cargo tank motor vehicle and determines it is in need of inspection or re-inspection because evidence has been discovered that the original tests were not performed in accordance with the regulations—or because of defects in the cargo tank motor vehicle itself—that these facts are sufficiently considered an ''objectively reasonable and articulable belief.'' Therefore, PHMSA proposes to revise this paragraph to replace ''probable cause'' with ''objectively reasonable and articulable belief.'' This amendment will provide clarity on when an investigator can require testing and inspection (or reinspection), thus ensuring cargo tanks are safe for transport.

Paragraph (c)

This paragraph specifies each specification cargo tank must be tested and inspected in accordance with the table listed under paragraph (c). PHMSA proposes the following editorial amendments for clarity:

- Specify the most recent inspection is one ''completed in accordance with the requirements in part 180;''
- Spell out ''cargo tank motor vehicle'' instead of the abbreviation ''CTMV;''
- Clarify that the inspector in question must be a Registered Inspector; and
- Clarify that this paragraph should apply to a ''cargo tank motor vehicle subject to this subpart'' instead of a ''specification cargo tank.''

These proposed amendments ensure regulatory consistency, thus enhancing safety.

Paragraph (d)(1)

This paragraph applies to the external visual inspection of cargo tank motor vehicles, and states that where insulation precludes a complete external visual inspection as required by §§ 180.407(d)(2) through (d)(6), the cargo tank must also be given an internal visual inspection in accordance with § 180.407(e). PHMSA proposes to add ''coverings such as wrappings and coatings'' as materials that can preclude a complete external visual inspection to paragraph (d)(1). This is consistent with Letters of Interpretation Reference Nos. 14–0110, 15–0221, 15–0226, 16–0049, 20–0013, and 20–0038 and this proposal will provide regulatory clarity without reducing safety.

Paragraph (d)(2)(i)

This paragraph specifies the tank shell and heads must be inspected during the external visual inspection. PHMSA proposes to require that ''during the inspection of the cargo tank shell and heads, all pad attachments on either the cargo tank shell or head shall be inspected for method of attachment or other conditions that may render the appurtenance as unsafe.'' This proposed requirement ensures that the pad attachments are properly functioning, which increases the safe transportation of hazardous materials in cargo tanks.

Additionally, PHMSA proposes to specify that the tank shell and heads must be ''evaluated in accordance with § 180.411.'' This proposed editorial amendment provides additional regulatory clarity to cross-reference the current evaluation requirements and therefore, increase compliance.

Paragraph (d)(2)(ii)

Paragraph (d)(2)(ii) specifies external visual inspection requirements for piping, valves, and gaskets. PHMSA proposes to specify that this paragraph applies to the piping system, which includes flexible connectors in addition to the currently identified piping, valves and gaskets. This proposal provides regulatory clarity as it expands the specificity of what constitutes the piping system and therefore, increases regulatory compliance and thus, safety.

Paragraph (d)(2)(iv)

This paragraph specifies inspection requirements for emergency devices and valves during the external visual inspection. PHMSA proposes to indicate editorially that remote closure devices include ''all emergency discharge control systems and delivery hoses required by § 173.315(n).'' This proposal is intended to provide clarity compared to the existing regulatory language and is not intended to subject new devices and valves to this requirement. Therefore, this proposal provides additional regulatory clarity to ultimately increase regulatory compliance and safety.

PHMSA also proposes instead of specifying all emergency devices and valves must be ''free from'' corrosion, distortion, erosion, and any external damage that will prevent safe operation, that they have to be ''inspected for'' this type of damage. This editorial proposal reinforces that in order to ensure the emergency discharge devices and valves do not have any corrosion, distortion, erosion, and/or any external damage that will prevent operation. The emergency discharge devices and valves must be inspected as part of the external visual inspection at the interval prescribed in § 180.407(c). While not currently specified in paragraph (d)(2)(iv), inspection of emergency discharge devices and valves is referenced in § 180.417. Therefore, to remove any potential confusion or regulatory inconsistency, PHMSA proposes to add inspection to paragraph (d)(2)(iv). Ultimately, PHMSA expects this clarity will increase safety of cargo tank motor vehicle hazardous materials transportation.

PHMSA further proposes two editorial amendments to the currently effective requirement that ''remote closure devices and self-closing stop valves be functioned to demonstrate proper operation.'' Specifically, PHMSA proposes to revise the requirement from ''remote closure devices'' to ''all emergency closure devices'' consistent with proper terminology throughout the rest of the paragraph. In addition, for grammatical correctness, PHMSA proposes to rewrite the requirement to indicate the equipment must be ''operated to demonstrate proper functioning'' instead of ''functioned to demonstrate proper operations.'' Therefore, this sentence is proposed to read, ''All emergency closure devices and self-closing stop valves must be operated to demonstrate proper functioning.''

Lastly, this paragraph does not indicate a required distance for testing remote shutoff devices. PHMSA proposes to specify ''the distance for testing non-mechanical remote shutoff devices must be in accordance with the original device manufacturer's specification.'' This ensures the non-mechanical remote shutoff device operates safely, as it was originally manufactured to function, and follows optimum testing parameters, which increases safety of cargo tank motor vehicles.

Paragraph (d)(2)(viii)

This paragraph requires all major appurtenances and structural attachments and those elements of the upper coupler assembly that can be inspected without dismantling the upper coupler, must be inspected for any corrosion or damage that may prevent safe operation during the external visual inspection. Section 178.320 defines an *appurtenance* as any attachment to a cargo tank that has no lading retention or containment function and provides no structural

support to the cargo tank. However, the HMR does not define ''major appurtenances'' and therefore, the ''major'' qualifier is ambiguous. Therefore, to eliminate the ambiguity and for consistency with the definition of an *appurtenance,* PHMSA proposes to remove the term ''major.'' PHMSA expects this regulatory clarity will improve compliance and ultimately, safety.

In addition, the issue of whether the king pin should be checked as part of the external visual inspection, and, if so, what criteria should be used, was raised at one of the previously referenced cargo tank technical information sessions. Participants at the session recommended that language be added to state clearly that the king pin is part of the upper coupler assembly. Therefore, as PHMSA expects this increases regulatory compliance and safety, PHMSA proposes to add a clarifier that the upper coupler includes the king pin, while subsequently removing the term ''fifth wheel.''

Paragraphs (d)(2)(ix) and (g)(1)(iii)

These paragraphs provide inspection requirements of areas covered by the upper coupler assembly. Paragraph (d)(2)(ix) requires this inspection occurs during the external visual inspection for cargo tanks carrying lading corrosive to the cargo tank and paragraph (g)(1)(iii) requires that this inspection occurs during the pressure test for cargo tanks that do not transport lading corrosive to the cargo tank. PHMSA proposes similar amendments in both paragraphs.

First, PHMSA proposes editorial amendments by specifying these paragraphs apply to ''cargo tank motor vehicles'' as opposed to ''cargo tanks,'' consistent with other proposals. In addition, and consistent with proposed amendments in paragraph (d)(2)(viii), PHMSA proposes to remove the references to ''fifth wheel,'' as it is no longer necessary. See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraphs (d)(2)(viii)'' for further discussion on this proposal. Additionally, in paragraph (d)(2)(ix), PHMSA proposes to revise ''two-year period'' as a numerical value for grammatical consistency.

Furthermore, PHMSA proposes to specify the upper coupler assembly can be removed from the cargo tank for inspection under certain conditions. On some cargo tank motor vehicles, there is sufficient area above the upper coupler and below the bottom of the cargo tank to inspect the bottom of the cargo tank without removing the upper coupler. PHMSA proposes to allow for the inspection of the tank above the upper coupler where there is sufficient area above the upper coupler and below the bottom of the cargo tank to inspect the tank surface when conducting the inspection by directly viewing the cargo tank. The ability for direct viewing means the area can be inspected without the use of an aid, such as mirrors, cameras, or fiber optics. This proposal is consistent with letters of interpretation issued by PHMSA.[57] Furthermore, this allowance means that the upper coupler can remain attached, which reduces the potential for improper reattachment, while maintaining the safety standard for inspection (complete visual inspection of the cargo tank shell).

Finally, to reinforce current FMCSR requirements, PHMSA proposes to specify that when the upper coupler assembly is removed from the cargo tank motor vehicle, it must be reattached in accordance with the manufacturer's instructions and 49 CFR 393.70, the Federal Motor Carrier Safety Regulation section that covers couplers. This proposal reinforces current requirements to ensure the upper coupler assembly is replaced safely and correctly.

Paragraph (d)(2)(ix)

See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraphs (d)(2)(ix) and (g)(1)(iii)'' for a discussion on the proposed changes in this paragraph.

Paragraphs (d)(3), (d)(3)(i), and (d)(3)(ii)

Paragraph (d)(3) specifies the inspection requirements for reclosing pressure relief valves. PHMSA proposes to split the current requirements into two new paragraphs to distinguish the requirements more clearly and increase compliance. Subsequently, PHMSA proposes to add introductory language to paragraph (d)(3) to specify the requirements of paragraph (d)(3)(i) and (ii) apply to reclosing pressure relief devices. Additionally, PHMSA proposes to amend all references in new paragraphs (d)(3)(i) and (ii) to ''pressure relief valves'' as ''pressure relief devices'' for consistency with the rest of the HMR.

PHMSA proposes that paragraph (d)(3)(i) contains the first sentence of current paragraph (d)(3). Currently, this requires that all reclosing pressure relief valves be externally inspected for corrosion and damage, which might prevent safe operation. PHMSA proposes no other revisions than the editorial amendment described above.

PHMSA proposes that new paragraph (d)(3)(ii) contains the last two sentences of current paragraph (d)(3). Currently, these last two sentences require that all reclosing pressure relief valves that carry lading corrosive to the cargo tank be removed for inspection and testing. Furthermore, the requirement to remove and test reclosing pressure relief valves must be done in accordance with § 180.407(j). In addition to the editorial amendment described above, PHMSA proposes to consolidate these two sentences into one sentence as the introductory language in the second sentence is duplicative. This consolidation aims at reducing any ambiguity and streamlining the requirement to increase compliance. PHMSA proposes to specify the paragraph applies to ''cargo tank motor vehicles'' instead of just ''cargo tanks,'' consistent with other proposed amendments. Lastly, PHMSA proposes to qualify editorially that by ''testing'' the requirement is for ''bench testing'' to reduce any potential confusion.

Paragraphs (d)(3)

See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraphs (d)(3), (d)(3)(i) and (d)(3)(ii)'' for a discussion on the proposed changes in this paragraph.

Paragraphs (d)(3)(i)

See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraphs (d)(3), (d)(3)(i) and (d)(3)(ii)'' for a discussion on the proposed changes in this paragraph.

Paragraphs (d)(3)(ii)

See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraphs (d)(3), (d)(3)(i) and (d)(3)(ii)'' for a discussion on the proposed changes in this paragraph.

Paragraph (d)(4)

This paragraph requires ring stiffeners or other appurtenances must be thickness tested at least once every two years. PHMSA proposes editorial revisions, including removing the term ''other'' in reference to appurtenances, specifying the paragraph applies to ''cargo tank motor vehicles'' instead of ''cargo tanks,'' and minor grammatical revisions to align this paragraph with other proposals.

Paragraph (d)(7)

Paragraph (d)(7) requires that an inspector must record the results of an external visual examination. PHMSA

[57] See Letters of Interpretation Reference Nos. 02–0290 and 11–0059. See Letter of Interpretation Reference No. 02–0290: *https://www.phmsa.dot.gov/regulations/title49/interp/02-0290.* See Letter of Interpretation Reference No. 11–0059: *https://www.phmsa.dot.gov/regulations/title49/interp/11-0059.*

proposes to move the current requirements of paragraph (d)(7) to a new paragraph (d)(9). In its place, PHMSA proposes that paragraph (d)(7) requires external ring stiffeners to be inspected for corrosion, pitting, abraded areas, or damage, and repaired as appropriate during external visual inspection. Ring stiffeners are installed on cargo tank motor vehicles to provide structural support, however, the HMR do not currently require that they are inspected and repaired as appropriate. If the external ring stiffeners fail because they were not inspected and repaired appropriately, the cargo tank motor vehicles would be left vulnerable to an incident, therefore, PHMSA proposes this new requirement to eliminate a potential safety gap.

Paragraph (d)(8)

PHMSA proposes this new paragraph to require Registered Inspectors to inspect weld repairs for leakage and weld defects. Furthermore, PHMSA proposes that the Registered Inspector verify the weld repair was done in accordance with § 180.413. FMCSA determined an incident resulting in death and injuries occurred because the welded repairs were not conducted in accordance with the HMR and the repair facility did not hold the appropriate certificates. To avoid this type of incident in the future and ensure the continued safe transportation of hazardous materials in specification cargo tank motor vehicles, PHMSA proposes to add this verification requirement to reduce improper welding operations.

Paragraph (d)(9)

Based on proposed amendments in paragraphs (d)(7) and (8), PHMSA proposes to move the current requirements of paragraph (d)(7) to new paragraph (d)(9). As previously discussed, current paragraph (d)(7) requires that the inspector must record the results of the external visual examination as specified in § 180.417(b). PHMSA does not propose any additional amendments to this paragraph.

Paragraph (f)

This paragraph provides requirements for lining inspections. The introductory sentence to this paragraph specifies the integrity of the lining on all lined cargo tanks must be verified at least once each year as outlined in paragraph (f). PHMSA identified that this paragraph may be interpreted as contradicting the periodic test and inspection table found under § 180.407(c), which specifies that all lined cargo tanks transporting lading corrosive to the tank, must undergo a lining inspection every year. To reduce this confusion, PHMSA proposes to revise this paragraph to specify only cargo tank motor vehicles that are required to be lined are required to undergo an annual lining inspection as specified in the rest of paragraph (f).

Paragraph (f)(2)

This paragraph states that linings not made of rubber must be tested using equipment and procedures prescribed by the lining manufacturer or lining installer. PHMSA proposes to revise paragraph (f)(2) to specify ''[f]or linings made of materials other than rubber (elastomeric material), the owner of the cargo tank motor vehicle must obtain documentation from the lining manufacturer or installer that specifies the proper procedures for lining and inspection. This documentation must be provided to the Registered Inspector before inspection.'' PHMSA expects this requirement will ensure the lining is being properly inspected. Currently, a cargo tank motor vehicle owner is responsible for information regarding the cargo tank motor vehicle, including information on the lining. Additionally, the cargo tank motor vehicle owner should have this information, because, in some cases, the cargo tank motor vehicle is lined upon purchasing, and thus, the information is provided during the course of ownership. However, because it is currently not specified in the HMR, manufacturers may not have this information readily available for Registered Inspectors during inspections. Therefore, this proposed requirement ensures the availability of this documentation to Registered Inspectors to make certain the lining is properly inspected, which increases safety.

Paragraph (f)(3)

Paragraph (f)(3) details requirements for degraded or defective areas of the cargo tank liner. As an editorial amendment, PHMSA proposes to revise ''liner'' as ''lining'' as this is more appropriate terminology, consistent with the rest of § 180.407.

Additionally, PHMSA proposes to add a sentence at the end of the paragraph to require that if ''degraded or defective areas of the cargo tank lining are repaired or if the lining is replaced, it must comply with the lining manufacturer's or installer's procedures, subject to the lining requirements of the HMR.'' This aligns with the proposed requirement in paragraph (f)(2) to require that the cargo tank motor vehicle owner provide a Registered Inspector with documentation from the lining owner for inspection and testing. See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraph (f)(2).'' If the lining is repaired or replaced without being in compliance with the lining manufacturer or installer's procedures, it may affect the structural integrity of the cargo tank. Therefore, this proposed requirement is in the interest of safety and aligns with general industry practice.

Paragraph (g)(1)(ii)

This paragraph details pressure test procedures for self-closing pressure relief valves. PHMSA proposes editorial amendments to this paragraph. These amendments include updating terminology to align more appropriately with other references in the HMR, revising ''pressure relief valves'' to ''pressure relief devices,'' and specifying the self-closing PRDs must be removed from the cargo tank motor vehicle (instead of cargo tank).

Paragraph (g)(1)(iii)

See ''Section IV. Section-by-Section Review; Part 180; Section 180.407; Paragraph (d)(2)(ix) and (g)(1)(iii)'' for a discussion on the proposed changes in this paragraph.

Paragraph (g)(1)(viii)

This paragraph details requirements for pressure testing of cargo tanks by the hydrostatic test method. PHMSA proposes editorial corrections to this paragraph. PHMSA believes that the terms ''including its domes'' and ''to not less than the pressure'' do not contribute to the clarity of the paragraph. Therefore, PHMSA proposes to remove the language from the paragraph to ensure increased clarity, compliance, and ultimately increase safety. Additionally, PHMSA proposes to spell out numerically ''10 minutes'' for grammatical accuracy consistent with other proposals.

Paragraph (g)(3)

This paragraph details requirements for the internal inspection by wet fluorescent magnetic particle method for MC 330 and MC 331 cargo tanks. PHMSA proposes to update the IBR of CGA Technical Bulletin TB–2 to CGA Technical Bulletin P–26 (formerly TB–2) in § 171.7. See ''Section IV. Section-by-Section Review; Part 171; Section 171.7'' for a discussion on the proposed change to this IBR. As this IBR is referenced in paragraph (g)(3), PHMSA proposes to update the reference to specify the new name of the CGA Technical Bulletin.

Paragraph (g)(6)

Paragraph (g)(6) specifies the acceptance criteria that must be met before a cargo tank can be returned to service. PHMSA proposes to remove the terms ''pneumatic inspection pressure'' and ''excessive permanent expansion.'' The ''pneumatic inspection pressure'' term is outdated and ''excessive permanent expansion'' is duplicative because it is covered by the acceptance criteria of ''shows distortion'' in the paragraph. Lastly, PHMSA proposes to specify this paragraph applies to ''cargo tank motor vehicles'' as opposed to just ''cargo tanks.'' These proposals increase regulatory clarity and therefore, increase the safe transportation of hazardous materials.

Paragraph (h)(1)

Paragraph (h)(1) specifies leakage test requirements. In paragraph (h)(1), PHMSA proposes to make several editorial amendments. PHMSA proposes to replace the requirement that the leakage test must include ''testing product piping'' to instead require that the leakage test include ''all components of the cargo tank wall, and the piping system.'' Furthermore, PHMSA proposes to revise ''accessories'' and ''venting devices'' to read as ''pressure relief devices.'' Lastly, PHMSA proposes to spell out ''percent'' instead of using the percent sign (%). These changes are intended to align with more current terminology and not revise the intent of these requirements. Therefore, PHMSA expects this proposed change makes the regulations clearer, which ultimately increases safety.

Paragraph (h)(1)(i)

This paragraph provides an alternate leakage test pressure for a cargo tank with an MAWP of 690 kPA (100 psig) or more. PHMSA proposes a minor editorial revision specifying this paragraph applies to a ''cargo tank motor vehicle'' instead of a ''cargo tank,'' which aligns with other proposed changes.

Paragraph (h)(1)(ii)

Paragraph (h)(1)(ii) provides an alternate leakage test pressure for an MC 330 or MC 331 cargo tank in dedicated liquefied petroleum gas service. Consistent with paragraph (h)(1)(iii), PHMSA proposes to include non-specification cargo tank motor vehicle authorized under § 173.315(k) in this paragraph. In addition, PHMSA proposes an editorial amendment to correct the spelling of ''liquified'' to ''liquefied.''

Paragraph (h)(1)(iii)

This paragraph authorizes a leakage test pressure exception for an MC 330 or MC 331 cargo tank, and a non-specification cargo tank authorized under § 173.315(k) equipped with a meter. PHMSA proposes a minor editorial revision consistent with other proposals to specify this paragraph applies to ''cargo tank motor vehicles'' instead of ''cargo tanks.''

Paragraph (h)(1)(iv)

This paragraph provides an alternate leakage test pressure for an MC 330 or MC 331 cargo tank in dedicated service for anhydrous ammonia. PHMSA proposes minor editorial revisions to specify this paragraph applies to ''specification MC 330 or MC 331 cargo tank motor vehicles.''

Paragraph (h)(2)

Paragraph (h)(2) details leak test authorizations for cargo tanks used to transport petroleum distillate fuels that are equipped with vapor collection equipment. PHMSA proposes a minor editorial amendment to specify this paragraph applies to ''cargo tank motor vehicles'' instead of ''cargo tanks'' consistent with correct terminology and other proposals.

Paragraph (h)(3)

This paragraph requires that if a cargo tank fails to retain leakage test pressure, it may not be returned to service as a specification cargo tank, except under conditions specified in § 180.411(d). PHMSA proposes editorial amendments to indicate that this paragraph applies to ''cargo tank motor vehicles'' instead of ''cargo tanks.'' Furthermore, PHMSA proposes to include leaks as another reason why the cargo tank may not be returned to service. A cargo tank motor vehicle that is leaking would not pass a leakage test if one was conducted and thus, should be subject to this paragraph and subject to repair immediately. Therefore, a leakage test would not have to be performed on the leaking cargo tank motor vehicle before the cargo tank motor vehicle is subject to repair. The intent of this revision is to support the safe transportation of hazardous materials in cargo tank motor vehicles by allowing leaking tanks to be repaired more efficiently. Lastly, PHMSA proposes to remove the specific reference to § 180.411(d) as how a cargo tank motor vehicle is returned to service. Section 180.411(d) requires all sources of leakage must be repaired. Instead of requiring the reader to turn to another section with minimal instruction, PHMSA proposes to add plain language to indicate the cargo tank motor vehicle must be repaired as required by this subpart before returning to service. PHMSA expects that this provides regulatory clarity and therefore, aids in increased safety.

Paragraph (h)(4)

This paragraph specifies the inspection requirements for delivery hose assembly and piping systems of specification MC 330 and MC 331 cargo tank motor vehicles and non-specification cargo tank motor vehicles authorized under § 173.315(k). PHMSA proposes editorial amendments in this paragraph. First, PHMSA proposes to remove the July 1, 2000, reference as this date has passed and is no longer needed. PHMSA also proposes to specify this paragraph applies to Registered Inspectors ''conducting a leakage test'' to reinforce the general applicability of paragraph (h). Lastly, PHMSA proposes to revise all references of ''cargo tanks'' to ''cargo tank motor vehicles,'' consistent with other proposals. These proposed editorial amendments help to increase regulatory clarity and ultimately, increase safety.

On August 1, 2012, in response to various incidents and NTSB Safety Recommendations H–12–1 through H–12–6, FMCSA issued a notice [58] regarding hoses used for the transfer of Anhydrous Ammonia and Liquefied Petroleum Gas from cargo tank motor vehicles to storage tanks, and vice versa. This notice reinforced the potential hazards and importance of safety requirements for these hoses, which are subject to emergency discharge control requirements in § 173.315(n). Therefore, to reinforce the need to have these hoses tested and inspected, PHMSA proposes to specify the applicability of the requirements for delivery hose assembly and piping systems in this paragraph includes any delivery hose assembly used to meet § 173.315(n). PHMSA expects that codifying this information in the HMR will increase compliance and therefore, increase safety.

PHMSA also proposes to add a sentence to indicate ''the test pressure of the delivery hose assembly must be at least 80 percent of the MAWP of the cargo tank.'' This provides regulatory clarity to increase safety and is not intended to revise current inspection requirements.

Lastly, in review of this paragraph, PHMSA and FMCSA identified that the sentence ''[d]elivery hose assemblies not

[58] See the August 1, 2012, notice at: *https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Important%20Notice%20Regarding%20Anhydrous%20Ammonia%20and%20Liquefied%20Petroleum%20Gas%20Hoses_508CLN.pdf.*

permanently attached to the cargo tank motor vehicle may be inspected separately from the cargo tank motor vehicle'' may potentially be confusing language. As currently required in § 180.416(e), a delivery hose assembly that is not permanently attached to a cargo tank is required to be annually tested in accordance with § 180.407(h)(4). However, because § 180.407(h)(4) only uses the term ''inspection'' without the term ''testing,'' there is potential ambiguity on how a person tests a delivery hose assembly that is not permanently attached to a cargo tank. To remove this ambiguity, PHMSA proposes to revise ''separately from the cargo tank motor vehicle'' to ''and tested while not attached to the cargo tank motor vehicle.'' By reducing any potential ambiguity, PHMSA expects this will increase compliance and ultimately, safety.

Paragraph (i)(4)(v)

This paragraph requires thickness testing be performed on the areas around shell reinforcements. PHMSA proposes to add emphasis that the areas around shell reinforcements include the areas ''around all ring stiffeners and the areas in the bottom half of the cargo tank.'' PHMSA expects this proposed language will aid in regulatory understanding to ultimately increase safety, without altering the intent of this section.

Paragraph (i)(6)

Paragraph (i)(6)(ii) requires that the cargo tank motor vehicle nameplate must reflect revised service limits as one of the conditions to continue using a cargo tank that no longer conforms to the minimum thickness prescribed in the original design of a cargo tank motor vehicle.

PHMSA proposes to clarify that the cargo tank DCE must supply the part 178 supplemental Certificate of Compliance (currently required by § 180.407(i)(6)(i)) that includes the revised minimum thickness to the cargo tank motor vehicle owner. This proposal establishes an additional record beyond the name plate or specification to assist with traceability of the cargo tank motor vehicle. In addition, this ensures these revised service limits can be identified if there is degradation of the name plate or specification, which will increase future safe transportation and maintenance of the cargo tank motor vehicle. Additionally, PHMSA is proposing an editorial revision to include marking the ''certification plate'' for older 300-series CTMVs.

Section 180.409

This section details minimum qualifications for inspectors and testers. Paragraph (a) includes introductory language for this section. PHMSA proposes minor editorial revisions to paragraph (a) for ease of reading. This includes removing ''except as otherwise provided in this section'' and replacing the § 180.407(e) reference with a general reference to this subpart. PHMSA expects that by increasing the readability, it increases compliance and therefore, safety.

Additionally, PHMSA proposes to add paragraph (a)(4) to reinforce that a registered inspector must meet the training requirements of part 172 subpart H. The second highest number of FMCSA enforcement violations each year occur from Registered Inspectors not having met the general hazmat employee training requirements. Therefore, in an effort to improve compliance and reinforce the current HMR requirements, PHMSA proposes to add paragraph (a)(4) to state that Registered Inspectors must meet the training requirements in part 172 subpart H.

Section 180.411

Section 180.411 details the acceptable results of the test and inspections of cargo tank motor vehicles required by the HMR. Paragraph (b) provides introductory language and requires use of CGA C–6 for evaluation procedures of dents, cuts, digs, and gouges. Paragraph (b)(1) provides acceptable results for dents. In review of the HMR, PHMSA noted in addition to dents, cuts, digs, and gouges, CGA C–6 also includes evaluation procedures for bulges. Similar to dents, bulges are a feature of a cargo tank that should be evaluated to ensure the cargo tank motor vehicle operates properly. Therefore, to increase safety and align with CGA C–6, PHMSA proposes to add bulges in the list of defects in the introductory title to paragraph (b) and in paragraph (b)(1).

Paragraph (g) specifies that any tank that fails to meet pressure test requirements must be properly repaired. As a minor editorial amendment, in the introductory text, PHMSA proposes to add the word ''cargo'' to clarify the testing is for the ''cargo tank.''

Lastly, PHMSA proposes to add paragraph (h) to specify when a cargo tank motor vehicle must be removed from service and how that removal must be communicated to the cargo tank motor vehicle owner. This proposed language specifies that if a Registered Inspector determines the cargo tank motor vehicle does not meet the applicable design specification, it may not be represented as a DOT specification cargo tank motor vehicle. Furthermore, the cargo tank motor vehicle must be removed from service until it is in compliance with the specification requirements and has been successfully tested and inspected as required by § 180.407(c). This aligns with current regulatory requirements, but provides additional clarity, specifically for scenarios where a non-conforming cargo tank motor vehicle may not be marked as a DOT specification cargo tank until it has been repaired and can pass the appropriate § 180.407(c) test and inspections. Therefore, PHMSA expects this proposal to increase safety and ensure cargo tank motor vehicles are removed from hazardous materials service when they do not conform to the HMR.

Section 180.413

Section 180.413 specifies requirements for the repair, modification, stretching, rebarrelling, or mounting of specification cargo tanks. Paragraph (b)(6) requires that MC 330 and MC 331 cargo tanks must be repaired in accordance with CGA Technical Bulletin TB–2 and the National Board Inspection Code. PHMSA proposes to update the IBR of CGA Technical Bulletin TB–2 to CGA Technical Bulletin P26 (formerly TB–2) in § 171.8. See ''Section IV. Section-by-Section Review; Part 171; Section 171.7'' for a discussion on the proposed change to this IBR. Therefore, PHMSA proposes to revise the name of the CGA Technical Bulletin in this paragraph.

Section 180.415

This section includes requirements for test and inspection markings for cargo tanks and cargo tank motor vehicles. Paragraph (b) details cargo tank marking requirements after completion of a test or inspection. PHMSA proposes to require that after a test or inspection, the cargo tank facility mark their cargo tank registration number on the cargo tank. As proposed, this marking must be placed immediately adjacent to other required markings and does not need to be replicated if the registration number is already marked on the cargo tank. FMCSA identified some cargo tanks that display current test or inspection markings but found safety concerns with the cargo tank. However, without the cargo tank registration number marked on the cargo tank, it is difficult to trace those safety concerns back to the testing and inspection facility who repaired, tested, or inspected the cargo tank. PHMSA and FMCSA expect that

having the cargo tank facility's registration number marked on the cargo tank will also aid in correcting noncompliance and increase the safety of cargo tank motor vehicles being operated on the highway.

Section 180.416

This section specifies inspection and maintenance requirements of discharge systems for cargo tanks transporting liquefied compressed gases. Paragraph (a) details the applicability of § 180.416. PHMSA proposes to revise editorially ''nonspecification cargo tanks'' to ''non-specification cargo tank motor vehicles,'' which aligns with other references to these cargo tank motor vehicles in the HMR.

Paragraph (b) details hose identification requirements. PHMSA proposes to remove the compliance date of July 1, 2000, as this date has passed, and all hoses are now subject to this requirement. This editorial revision helps to provide regulatory clarity and increase safety.

Paragraph (c) states the operator of a cargo tank motor vehicle must visually check that portion of the hose assembly that has been deployed during unloading. PHMSA proposes to specify that the rejection criteria in § 180.416(g) should be used when an operator visually checks the portion of the delivery hose assembly that was deployed during the unloading process. While not currently specified in paragraph (c), the rejection criteria in § 180.416(g) applies to hose assemblies; therefore, this proposal provides clarity and aids in additional regulatory compliance. Ultimately, PHMSA expects this proposal will increase safety.

Paragraph (f) specifies requirements for new or repaired delivery hose assemblies and PHMSA proposes minor editorial amendments, with paragraph (f)(3) specifying record requirements following the test and inspection. PHMSA proposes to revise the introductory text of paragraph (f) to specify the requirements apply to a ''cargo tank motor vehicle'' instead of a ''cargo tank.'' PHMSA also proposes to remove the compliance date of July 1, 2000, in paragraph (f)(3), as this date has passed. Both of these proposed editorial amendments align with other proposals and provide regulatory clarity, which is anticipated to increase safety.

Section 180.501

Section 180.501 contains the general requirements for continued use of tank cars. In this NPRM, PHMSA proposes to replace the phrase ''owner's qualification program'' with ''owner's qualification and maintenance program'' similar to other references to the owner's qualification and maintenance program in §§ 179.7, 180.503, and 180.513. The intent of this change is to maintain consistency and clarity within the HMR, and to ensure there is no confusion over the scope of part 180, subpart F, titled ''Qualification and Maintenance of Tank Cars.''

Section 180.503

Section 180.503 contains definitions relevant to the qualification and maintenance of tank cars. PHMSA proposes to revise the definitions of *coating/lining owner, service equipment owner* and *tank car owner,* to convey more clearly and accurately the intended application of these definitions in part 180 subpart F. These definitions are revised as ''the person responsible for the development or approval, and execution of the qualification and maintenance program'' for the coating/lining, service equipment, or tank car owner, as appropriate. This change identifies the responsible parties more accurately throughout subpart F, particularly by removing confusion about financial responsibility that can arise with complex multi-dimensional business arrangements, agreements, contracts, and organization. This proposed change was approved by HMIWG during the January 10–11, 2017 meeting. The proposed language was approved by consensus vote at the May 25, 2017, RSAC meeting and offered to PHMSA and FRA for consideration.

PHMSA also proposes to amend the following definitions:

- *Maintenance:* PHMSA proposes to remove ''upkeep, or preservation'' from the definition of *maintenance* and replace it with ''performance of functions.'' PHMSA and FRA consider ''upkeep'' and ''preservation'' too vague to be useful, especially for service equipment. *Maintenance* of service equipment that triggers qualification is an activity that meets the conditions requiring a leakage pressure test in accordance with § 180.509(j) (*e.g.,* breaking the seal between the service equipment and the tank car tank). Actions on service equipment that don't require the service equipment to be removed from the tank do not meet the definition of *maintenance* and don't trigger qualification, unless the owner's qualification and maintenance program specifically requires qualification after certain activities. See ''Section II.B.4. Tank Car Facility Definition'' for additional information. Lastly, PHMSA proposes to revise ''proper'' to ''appropriate'' as an editorial amendment.
- *Modification:* PHMSA proposes to replace ''certificate of construction'' with ''design approval certificate'' for tank cars constructed after the effective date of a final rule. Tank cars constructed under AAR-approved certificates of construction must receive DCE approval for any modification. See ''Section II.B.2. Tank Car Design Approval'' for additional information.
- *Qualification:* PHMSA proposes to replace the phrase ''applicable requirements of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter)'' with ''approved design.'' This amendment conforms to PHMSA's proposal to remove AAR approval requirements.
- *Service equipment:* PHMSA proposes to revise this definition to align with the current industry standard and is intended to provide more clarity than the current definition. Service equipment is pressure or lading retaining equipment and therefore performs a critical safety function. See ''Section II.B.4. Tank Car Facility Definition'' for additional information related to entities who operate and qualify service equipment. PHMSA and FRA emphasize that service equipment must continue to be included in the tank car owner's qualification and maintenance plan.

Section 180.509

Section 180.509 details requirements for inspection and testing of specification tank cars. Paragraph (i)(1) requires inspections of tank car internal linings and coatings used to transport a material that is corrosive or reactive to the tank car. PHMSA proposes to revise paragraph (i)(1) to indicate more clearly that the inspection requirements only apply to those linings and coatings used to protect the tank from corrosion or reactivity.

Paragraph (k)(2) contains qualification requirements for service equipment. PHMSA proposes to remove the phrase ''[e]ach tank car facility must qualify'' from § 180.509(k) because PHMSA does not require tank car facilities to qualify service equipment. Additionally, PHMSA proposes to replace ''qualified in accordance with'' with ''must conform to'' as an amendment to better align the paragraph with the definition of ''tank car facility'' being proposed in this rulemaking. See ''Section II.B.4. Tank Car Facility Definition'' for additional information.

Section 180.513

This section includes requirements for repairs, alterations, conversions, and

modifications of tank cars, with paragraph (b) specifying the responsibilities of a tank car facility. PHMSA proposes to revise paragraph (b) editorially to replace ''Quality Assurance Program'' with ''qualification and maintenance program.'' This proposal clarifies the tank car owner's responsibility to provide tank car facilities with qualification and maintenance information. See ''Section II.B.8. Editorial Revision to §§ 180.501 and 180.513'' for additional information.

Section 180.517

Section 180.517 contains reporting and record retention requirements for tank car qualification. PHMSA proposes to remove reference to the ''certification of construction'' and replace it with the proposed ''Design Approval Certificate'' for tank cars constructed after the effective date of a final rule. See ''Section IV. Section-by-Section Review; Part 179; Section 179.5'' for more information. Tank cars constructed with AAR-approved certificates of construction will remain subject to the same recordkeeping requirements for the rest of their service lives. In paragraph (a), PHMSA also proposes to replace references to the builder of the car with references to the tank car facility, replace references to the certificate of construction with references to qualification reports, and add a reference to paragraph 179.7(b)(12). The revisions to paragraph (a) are intended to accommodate the proposed replacement of AAR TCC approval with tank car DCE approval of tank car and service equipment designs. We propose to replace the phrase ''related papers'' with ''related qualification reports,'' to clarify that we expect tank car owners to retain the reports issued by tank car facilities at the time of manufacture and maintenance qualification. Additionally, PHMSA proposes to add a requirement to record the tank car facilities' registration number on the inspection and test report in new paragraph (b)(9).

Appendix D to Part 180

This appendix discusses materials considered corrosive to the tank or service equipment. PHMSA proposes to remove reference to the AAR TCC from the second paragraph, in conformance with the proposal to replace AAR TCC approval with tank car DCE approval. Therefore, PHMSA proposes to state that the list in Appendix D may be modified based on an analysis of the test results by the car owner or the Department of Transportation.

V. Regulatory Analyses and Notices

A. Statutory/Legal Authority

This NPRM is published under the authority of Federal Hazardous Materials Transportation Act (HMTA; 49 U.S.C. 5101–5127). Section 5103(b) of the HMTA authorizes the Secretary of Transportation to ''prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce.'' The Secretary has delegated the authority granted in the HMTA to the PHMSA Administrator at 49 CFR 1.97(b).

B. Executive Order 12866, 14094, and DOT Regulatory Policies and Procedures

Executive Order 12866 (''Regulatory Planning and Review'') [59] as amended by Executive Order 14094 (''Modernizing Regulatory Review''),[60] requires that agencies ''should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating.'' Agencies should consider quantifiable measures and qualitative measures of costs and benefits that are difficult to quantify. Further, Executive Order 12866 requires that ''agencies should select those [regulatory] approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.'' Similarly, DOT Order 2100.6A (''Rulemaking and Guidance Procedures'') requires that regulations issued by PHMSA, and other DOT Operating Administrations should consider an assessment of the potential benefits, costs, and other important impacts of the proposed action and should quantify (to the extent practicable) the benefits, costs, and any significant distributional impacts, including any environmental impacts.

Executive Order 12866 and DOT Order 2100.6A require that PHMSA submit ''significant regulatory actions'' to the Office of Management and Budget (OMB) for review. This rulemaking is not considered a significant regulatory action under section 3(f) of Executive Order 12866 (as amended) and, therefore, was not formally reviewed by OMB. A PRIA with estimates of the costs and benefits of the rulemaking is available in the docket.

PHMSA solicits comment on this analysis. Overall, the issues discussed in this rulemaking promote the continued safe transportation of hazardous materials while producing a net cost savings. Cost savings are derived from certain modal specific provisions, including expanding allowance of UN ID number marking on cargo tank motor vehicles that transport different petroleum distillate fuels within the same day and reduction in the number of anticipated OTMAs for rail tank cars.

Based on the discussions of benefits and costs provided above, PHMSA estimates annualized net benefits at a two percent discount rate of approximately $97.3 million per year. Details on the estimated costs, cost savings, and benefits of this rulemakings can be found in the PRIA, which is available in the public docket.

C. Executive Order 13132

PHMSA analyzed this rulemaking in accordance with the principles and criteria in Executive Order 13132 (''Federalism'') [61] and the Presidential Memorandum (''Preemption'') that was published in the **Federal Register** on May 22, 2009.[62] Executive Order 13132 requires agencies to assure meaningful and timely input by state and local officials in the development of regulatory policies that may have ''substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.''

This rulemaking may preempt state, local, and Native American tribe requirements, but does not propose any regulation that has 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.

The Federal Hazmat Law contains an express preemption provision, 49 U.S.C. 5125 (b), that preempts state, local, and tribal requirements on certain covered subjects, unless the non-federal requirements are ''substantively the same'' as the federal requirements, including:

(1) Designation, description, and classification of hazardous materials;

(2) Packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) Preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

[59] 58 FR 51735 (Oct. 4, 1993).

[60] 88 FR 21879 (Apr. 11, 2023).

[61] 64 FR 43255 (Aug. 10, 1999).

[62] 74 FR 24693 (May 22, 2009).

(4) Written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) Design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This rule addresses subject items (3) and (5) above, which are covered subjects, and, therefore, non-federal requirements that fail to meet the ''substantively the same'' standard are vulnerable to preemption under the Federal Hazmat Law. Moreover, PHMSA will continue to make preemption determinations applicable to specific non-federal requirements on a case-by-case basis, using the obstacle, dual compliance, and covered subjects tests provided in Federal Hazmat Law.

This rule also incorporates certain FRA requirements under the former Federal Railroad Safety Act of 1970, as repealed, revised, reenacted, and recodified (FRSA; 49 U.S.C. 20106), and the former Safety Appliance Acts, as repealed, revised, reenacted, and recodified (SAA; 49 U.S.C. 20301–20302, 20306) that may potentially preempt certain state requirements. Such FRSA and SAA requirements would apply to transportation by rail.

D. Executive Order 13175

PHMSA analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments'') [63] and DOT Order 5301.1 (''Department of Transportation Policies, Programs, and Procedures Affecting American Indians, Alaska Natives, and Tribes''). Executive Order 13175 and DOT Order 5301.1 requires DOT Operating Administrations to assure meaningful and timely input from Native American tribal government representatives in the development of rules that significantly or uniquely affect tribal communities by imposing ''substantial direct compliance costs'' or ''substantial direct effects'' on such communities or the relationship and distribution of power between the federal government and Native American tribes. Because this rulemaking does not have Native American tribal implications, and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply. However, PHMSA solicits comments from Native American tribal governments and communities on potential impacts of this proposed rulemaking.

E. Regulatory Flexibility Act and Executive Order 13272

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires agencies to consider whether a rulemaking would have a ''significant economic impact on a substantial number of small entities'' to include small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations under 50,000. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where possible to do so and still meet the objectives of applicable regulatory statutes. Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') [64] requires agencies to establish procedures and policies to promote compliance with the Regulatory Flexibility Act and to ''thoroughly review draft rules to assess and take appropriate account of the potential impact'' of the rules on small businesses, governmental jurisdictions, and small organizations. The DOT posts its implementing guidance on a dedicated web page.[65]

This rulemaking has been developed in accordance with Executive Order 13272 and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered. PHMSA has developed an initial regulatory flexibility analysis (IRFA), which is included in the docket. As detailed in the IRFA, the impact of this rulemaking on small business is not expected to be significant. The proposed changes are generally intended to provide regulatory flexibility and cost savings to industry members, while increasing safety. However, PHMSA solicits comment on the anticipated economic impacts to small entities and the IRFA.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), no person is required to respond to any information collection unless it has been approved by OMB and displays a valid OMB control number. Pursuant to 44 U.S.C 3506(c)(2)(B) and 5 CFR 1320.8(d), PHMSA must provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests.

PHMSA has analyzed this NPRM in accordance with the Paperwork Reduction Act. PHMSA proposes to revise the approved information collections under the following OMB Control Numbers: OMB Control No. 2137–0014, ''Cargo Tank Specification Requirements;'' OMB Control No. 2137–0559, ''Rail Carrier and Tank Car Tanks Requirements, Rail Tank Car Tanks—Transportation of Hazardous Materials by Rail;'' and OMB Control No. 2137–0612 ''Hazardous Materials Security Plans.''

OMB Control No. 2137–0014, ''Cargo Tank Specification Requirements''

PHMSA estimates that this rulemaking will result in an increase in burden due to the proposed requirements in § 180.407(f)(2) for a cargo tank owner to provide paperwork to the Registered Inspector prior to lining inspection and § 180.415(b) for an inspector or tester to mark the cargo tank with their registration number. A total overview of the proposed changes in this OMB Control Number are detailed in the table below.

For the proposed requirement in § 180.407(f)(2) for a cargo tank owner to provide paperwork to the Registered Inspector for lining inspection, PHMSA estimates 1,333 cargo tank owners will provide paperwork for approximately 60 cargo tanks per year. It is estimated to take five minutes per response, for a total of 6,665 annual burden hours. PHMSA does not estimate that there are any out-of-pocket expenses.

The new proposed requirement in § 180.415(b) for a cargo tank inspector to mark the cargo tank with their registration number is expected to increase information collection burden. PHMSA estimates 3,400 cargo tank inspectors will mark each cargo tank approximately 61 times per year. The marking is anticipated to take five minutes per inspection, resulting in a total of 17,283 annual burden hours. PHMSA does not estimate any out-of-pocket expenses. PHMSA notes that after the first year of this requirement, there will be a significant reduction in this burden as the registration number does not need to be remarked on the cargo tank if it is being tested and inspected at the same location. Therefore, PHMSA plans to update this burden one year after the effective date of this rulemaking.

Lastly, PHMSA acknowledges that there are proposed amendments that

[63] 65 FR 67249 (Nov. 6, 2000).

[64] 67 FR 53461 (Aug. 16, 2002).

[65] DOT, ''Rulemaking Requirements Related to Small Entities,'' *https://www.transportation.gov/regulations/rulemaking-requirements-concerning-small-entities* (last visited Jun. 17, 2021).

impact the burden but are not included in this estimate. PHMSA does not estimate a significant change in the current burden due to the proposed changes to cargo tank registration including requiring an email address on the registration statement, providing for online submission, and expanding the types of certificates that must be provided in an application. Additionally, PHMSA does not expect that there will be more than ten respondents who will submit a written response, request for reconsideration, or request appeal following the modification, suspension, or termination of their cargo tank registration. PHMSA and FMCSA also expect that there will not be more than ten respondents per year who will replace a missing specification plate and prepare and maintain paperwork, as proposed in new § 180.503(b)(3). Therefore, PHMSA is not including a new information collection for this requirement.

Information collection details	Increase in number of respondents	Response per respondent	Increase in number of responses	Minutes per response	Increase in annual burden hours	Increase in annual burden costs
Obtain and Provide Paperwork for Lining Inspection—§ 180.407(f)(2)	1,333	60	79,980	5	6,665	$0
Registration Number on Cargo Tank—§ 180.415(b)	3,400	61	207,400	5	17,283	0

Annual Increase in Number of Respondents: 4,733.

Annual Increase in Number of Responses: 287,380.

Annual Increase in Burden Hours: 23,948.

Annual Increase in Burden Costs: $0.

OMB Control No. 2137–0559, ''Rail Carrier and Tank Car Tanks Requirements, Rail Tank Car Tanks—Transportation of Hazardous Materials by Rail''

PHMSA estimates that this rulemaking will result in an increase in burden due to various tank car proposed changes, including: new tank car facility and DCE registration, including reporting and recordkeeping requirements; development of procedures for closing and securing all openings on tank cars; record requirements for a tank car being held more than 48 hours; OTMA recordkeeping requirements; DCE written procedures to verify compliance of tank cars; and requirement for the DCE to provide a DAC to the tank car or service equipment owner. However, this rulemaking will also lead to a decrease in burden, particularly in the removal of AAR reporting to Bureau of Explosives under § 174.20 and reduction in the number of OTMA applications under § 174.50. A total overview of the proposed changes in this OMB Control Number are detailed in the below table.

PHMSA estimates that 280 tank car facilities will register for the proposed new tank car facility registration requirements in § 107.905. Each registration is anticipated to take two hours, for a total of 560 annual burden hours. PHMSA does not estimate that there are any out-of-pocket expenses associated with this information collection.

PHMSA estimates that 25 DCEs will register under the proposed new requirement in § 107.907 for DCE registration. Each registration is anticipated to take two hours to complete, for a total of 50 annual burden hours. PHMSA does not estimate any out-of-pocket expenses associated with this information collection.

For both tank car facility and DCE registration, PHMSA does estimate that this number will significantly reduce after the first year of initial tank car facility and DCE registration. However, after the first initial registration period, PHMSA estimates there will be a burden associated with registration renewal and updating the requirements in §§ 107.909(c) and 107.909(d). As tank car facility and DCE registration are new requirements, PHMSA does not estimate the renewal and updating requirements in the first year. However, PHMSA plans to estimate that to renew or update a tank car facility or DCE registration, it will take approximately 30 minutes to complete. One year after the effective date of this rulemaking, PHMSA will update the burden for initial registration and renewal and updating a registration.

PHMSA also estimates an increase in burden based on tank car facility and DCE registration recordkeeping proposed requirements in § 107.909(e). PHMSA estimates that most of the requests for a registration copy will occur during FRA inspections, which occur approximately 45 times per year. It is anticipated that it will take five minutes to produce the paperwork, resulting in total of approximately four annual burdens hours. PHMSA does not estimate any out-of-pocket expenses.

Additionally, PHMSA proposes requirements for the modification, suspension, and termination of tank cargo facility and DCE registrations, including provisions for registrants to submit a written response, request for reconsideration, and appeal of the decision. However, PHMSA has not estimated this burden, as PHMSA estimates that there will be less than ten registrants per year who may choose to respond, request reconsideration, or appeal their modification, suspension, and termination of their registration.

PHMSA proposes to revise the approval process in § 173.31(a)(2) from AAR approval to DCE approval. Accordingly, PHMSA will revise the name of the information collection from ''AAR Approval Required when a Tank Car is Proposed for Commodity Service other than Specified on a Certificate of Construction'' to ''DCE Approval when a Tank Car Carries a Commodity other than Specified on a Certificate of Construction or DAC.'' However, PHMSA does not expect a change in the burden associated with this collection because the required information for the change request does not change; only the approval entity is proposed to be changed.

PHMSA proposes to revise § 173.31(d)(1) to require written procedures for closure and securement of all openings on a tank car prior to shipment. PHMSA estimates that there are 4,619 tank car offerors who will be subject to this requirement. PHMSA estimates that 95 percent of these offerors already have some form of procedures and thus the burden to review and update these procedures is limited to 16 hours resulting in a total of 70,209 annual burden hours. The other five percent of offerors will need to create new procedures, which is estimated to take 40 hours to develop, resulting in a total of 9,238 annual burden hours. Therefore, PHMSA estimates that there will be an increase of 79,447 total burden hours for this new requirement. PHMSA does not estimate any out-of-pocket expenses. Following the initial year of this

rulemaking, PHMSA estimates that the burdens associated with developing these procedures will be significantly reduced, as only new tank car offerors will be subject to this requirement. Additionally, after the first year, PHMSA estimates that there will be a new burden for existing offerors to update their written procedures. PHMSA estimates that five percent of tank car offerors will take eight hours to update the procedures on an annual basis. PHMSA plans to add this burden after the rulemaking has been effective for one year.

PHMSA proposes a new requirement in § 174.14(a) to create a record when a tank car is being held beyond 48 hours. PHMSA estimates that there are 100 railroads who create this record 100 times per year. Each record takes approximately five seconds, resulting in a total of 14 annual burden hours. PHMSA does not estimate any out-of-pocket expenses.

PHMSA proposes to remove § 174.20(b), which requires reporting to the AAR Bureau of Explosives regarding any restrictions over any portion of its lines. PHMSA currently accounts for 34 offerors submitting 1.5 reports a year. Each report takes 20 minutes resulting in a reduction of 17 hours of annual burden.

PHMSA proposes to revise § 174.50 for OTMA requirements, including adding exceptions from needing an OTMA. Because of these reductions, PHMSA estimates a reduction of approximately three OTMA per year for each applicant for a total reduction of 575 OTMAs per year. As each application takes approximately 24 minutes to complete an OTMA, this revision results in an estimated reduction of 202 annual burden hours. PHMSA does not estimate any out-of-pocket expenses.

In § 174.50(d), PHMSA proposes to specify recordkeeping requirements for OTMAs. PHMSA estimates that these recordkeeping requests, which will mostly be through enforcement requests, occur 56 times per year. It takes approximately five minutes to produce the OTMA documentation, for a total of five annual burden hours. PHMSA does not estimate any out-of-pocket expenses.

PHMSA proposes a new requirement in § 179.3(b) for a DCE to develop written procedures to verify compliance with tank car design. PHMSA estimates that it takes eight hours for each of the 25 DCEs to develop written procedures, resulting in a total of 200 annual burden hours. PHMSA does not estimate any out-of-pocket expenses. Furthermore, as this is a one-time requirement, PHMSA plans to reduce this information collection one year after the effective date of this rulemaking.

Lastly, PHMSA proposes a recordkeeping requirement in §§ 179.3(d) and 179.5 that the DCE provide a copy of the DAC to the tank car or service equipment owner following approval. PHMSA estimates that the 25 DCEs will review and approve approximately 14 tank cars or service equipment designs per year, resulting in a total of 350 DACs produced. PHMSA estimates it will take 10 hours to develop the DAC resulting in 3,500 annual burden hours. PHMSA estimates that there are no out-of-pocket expenses for development of the DAC.

The following table outlines the total change in information collection burden:

Information collection request	Change in number of respondents	Responses per respondent	Change in number of responses	Time per response	Change in total burden hours	Change in annual burden costs
Tank Car Facility Registration—§ 107.905	280	1	280	2 hours	560	$0
DCE Registration—§ 107.907	25	1	25	2 hours	50	0
Tank Car Facility & DCE Registration Record Retention—§ 107.909(e)	45	1	45	5 minutes	4	0
Tank Car Tank Car Facility & DCE Registration—Renew or Update Registration—§ 107.909(e)	0	0	0	30 minutes	0	0
DCE Approval when a Tank Car Carries a Commodity other than Specified on a Certificate of Construction or DAC—§ 173.31(a)(2)	0	48	0	10 minutes	0	0
Procedures for Closing and Securing All Openings on a Tank Car—§ 173.31(d)(1)—NEW	4,619	1	4,619	16 hours	70,280	0
Procedures for Closing and Securing All Openings on a Tank Car—§ 173.31(d)(1)—UPDATES	231	1	231	40 hours	9,240	.....
Record Required for Car Being Held—§ 174.14(a)	100	100	10,000	5 seconds	14	0
Reporting to the Bureau of Explosives Regarding any Restrictions Over Any Portion of its Lines—§ 174.20(b)	−34	1.5	−51	20 minutes	−17	0
OTMA Application—§ 174.50(c)	−54	9	−575	24 minutes	−202	0
OTMA Documentation—§ 174.50(d)	56	1	56	5 minutes	5	0
DCE Written Procedure to Verify Compliance—§ 179.3(b)	25	1	25	8 hours	200	0
DCE Providing DAC Requirements—§§ 179.3(d), 179.5	25	14	350	10 hours	3,500	0

Annual Increase in Number of Respondents: 5,318.

Annual Increase in Number of Responses: 15,005.

Annual Increase in Burden Hours: 83,634.

Annual Increase in Burden Costs: $0.

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PHMSA estimates this rulemaking will result in a change in the current estimated burden based on the new exception from alternate route analysis. Specifically, PHMSA proposes to add § 172.820(d)(3) to provide an exception where no alternate route exists. PHMSA estimates that approximately 10 percent of Class II and III railroad routes will no longer have to develop alternate route analysis. This leads to a reduction of 1,400 total burden hours for both Class II and III railroads. However, § 172.820(d)(3) requires that to take the alternate route analysis exception, the railroad must develop remediation or mitigation measures and certify that no alternative route exists. Therefore, PHMSA estimates that there will be 132 railroads (32 Class II and 100 Class III railroads), with 47 routes where no alternate route exists. PHMSA estimates it will take 30 minutes to develop the written measures and certification and this new requirement will result in a total of 24 annual burden hours. Because there is no change in the number of Class II and III railroads who are subject to alternate route analysis

requirements, there is an increase in respondents and responses, but there is an overall decrease in burden hours and salary costs. The below table details the estimated change in burden associated with this new exception. PHMSA does not estimate any out-of-pocket expenses.

Information collection details—alternate route analysis—§ 172.820(d)	Change in number of railroads	Change in number of routes per railroad	Change in number of routes	Burden hours per route	Change in total burden hours	Change in total burden cost
Class II Railroads	0	−0.3	−10	120	−1,200	$0
Class III Railroads	0	−0.05	−5	40	−200	0
Where No Practicable Route Exists	132	0.35	47	0.5	24	0

Annual Increase in Number of Respondents: 132.

Annual Increase in Number of Responses: 32.

Annual Decrease in Burden Hours: 1,376.

Annual Decrease in Burden Costs: $0.

PHMSA requests comments on any information collection and recordkeeping burden associated with the proposed changes under this rulemaking. Address written comments to the DOT Dockets Operations Office as identified in the **ADDRESSES** section of this rulemaking. Comments regarding information collection burdens must be received prior to the close of the comment period identified in the **DATES** section of this rulemaking. Requests for a copy of this information collection should be directed to Steven Andrews or Glenn Foster, 202–366–8553, *OHMSPRA@dot.gov,* Standards and Rulemaking Division (PHH–10), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590–0001. If these proposed requirements are adopted in a final rule, PHMSA will submit the revised information collection and recordkeeping requirements to OMB for approval.

G. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (UMRA; 2 U.S.C. 1501 *et seq.*) requires agencies to assess the effects of federal regulatory action on state, local, or tribal governments, and the private sector. For any NPRM or final rule that includes a federal mandate that may result in the expenditure by state, local, and tribal governments, or by the private sector of $100 million or more in 1996 dollars in any given year, an agency must prepare, amongst other things, a written statement that qualitatively and quantitatively assesses the costs and benefits of the federal mandate.

This proposed rulemaking does not impose unfunded mandates under URMA. As explained in the PRIA, it is not expected to result in costs of $100 million or more in 1996 dollars on either state, local, or tribal governments, in the aggregate, or to the private sector in any one year, and is the least burdensome alternative that achieves the objective of the rule.

H. Draft Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq*), requires that federal agencies analyze proposed actions to determine whether the action will have a significant impact on the human environment. When the effects of a proposed action are unknown, CEQ implementing regulations (40 CFR 1500–1508) require federal agencies to conduct an environmental review and prepare an environmental assessment to consider (1) the need for the proposed action, (2) alternatives to the action, (3) probable environmental impacts of the action and alternatives, and (4) the agencies and persons consulted during the consideration process. DOT Order 5610.1C (''Procedures for Considering Environmental Impacts'') establishes DOT procedures for evaluation of environmental impacts under NEPA and its implementing regulations.

1. Need for the Action

This NPRM would amend the HMR to revise provisions specific to the highway, rail, and vessel transportation of hazardous materials. This proposed action is necessary to increase regulatory clarity and consistency, update requirements to reflect changing conditions and trends, and improve the safe transportation of hazardous materials.

2. Alternatives

In proposing this rulemaking, PHMSA considered the following alternatives:

No Action Alternative

If PHMSA were to select the No Action Alternative, current regulations would remain in place and no new provisions would be amended or added.

Proposed Action Alternative

The proposed alternative for this NPRM includes adoption of RSAC proposals for rail transportation, revision to the approval process for tank car designs and QAPs, miscellaneous amendments to highway cargo tank specification and requalification requirements, and an amendment to cargo tank marking requirements for the transportation of petroleum distillate fuels that will be discussed in further detail below.

This alternative is the current proposal as it appears in this NPRM, applying to the transportation of hazardous materials by highway, rail, and vessel. The proposed amendments included in this alternative are more fully described in the preamble and regulatory text sections of this NPRM.

3. Reasonably Foreseeable Environmental Impacts of the Alternatives

No Action Alternative

The No Action Alternative would not adopt enhanced and clarified regulatory requirements expected to maintain or increase the high level of safety in transportation of hazardous materials provided by the HMR. For example, creation of reliable and repeatable closure instructions for tank cars in § 173.31 is intended to decrease the number of leaking or improperly closed tank cars entering transportation, which will decrease the quantity of hazardous materials released into the environment. Not adopting the proposed environmental and safety requirements in the NPRM under the No Action Alternative would result in a lost opportunity for reducing safety-related incidents.

If PHMSA were to select the No Action Alternative, the HMR would remain unchanged, and no new provisions would be amended or added. Additionally, any economic benefits and additional regulatory clarity gained through these amendments would not be realized.

Proposed Alternative

The changes under the Proposed Action Alternative will maintain or increase the high safety standards

currently achieved under the HMR. The following details significant proposed amendments and their impact:

1. Adoption of Rail Safety Advisory Committee (RSAC) Proposals for Rail Transportation

Adoption of RSAC proposals includes updating the IBR edition of the AAR Specifications for Tank Cars to the 2014 edition from the 2000 edition; creating closure instruction requirements for tank car offerors; codifying long-standing FRA guidance on OTMAs; and revising tank car use requirements found in part 174 to reflect the current industry best practices in tank car loading and unloading.

The RSAC proposals are designed to improve regulatory clarity, and therefore encourage compliance with the requirements of the HMR. Creation of closure instruction requirements for tanks cars will decrease the number of non-compliant tank cars offered for transportation and the number of non-accidental releases of hazardous materials. Based on a review of non-accident release data, PHMSA and FRA estimate that the implementation of the closure instruction requirement could reduce the number of non-accidental releases by 15 percent, primarily by reducing releases associated with improperly closed hinged-and-bolted manways. Codifying FRA's One Time Movement Approval procedures in the HMR will have no impact on releases of hazardous materials to the environment, because these procedures are already in place as FRA policy. Revisions to part 174, including clarification of the applicability of the term ''residue'' for tank cars in § 174.58, authorizing additional types of packages for COFC/TOFC service without FRA approval in § 174.63, and revising transloading requirements in § 174.67 are intended to remove unnecessarily prescriptive and outmoded requirements and replace them with performance based standards that maintain the current level of safety. PHMSA and FRA do not anticipate any increase in the release of hazardous materials or other negative environmental impacts from these changes. Increased compliance with the HMR's requirements for hazardous materials containment in particular through proper closure instructions and transloading procedures, decreases the release of hazardous materials to the environment and improve the ability of emergency responders to appropriately respond to accidents and incidents involving hazardous materials in transportation.

Greenhouse gas emissions would remain the same under this proposed amendment.

Based on this analysis adopting RSAC proposals will have a positive impact on human health and the environment.

2. Revision to the Approval Process for Tank Car Designs and Quality Assurance Programs (QAPs)

PHMSA proposes changes to remove the role of the AAR TCC in tank car design approval, to be replaced with design review by a DCE. This process will mirror the current procedure for cargo tank motor vehicles. PHMSA additionally proposes to remove the role of the AAR TCC from the approval process of a tank car facility's QAP, to be replaced with a registration requirement for tank car facilities and increased governmental oversight. Finally, PHMSA proposes to revise the definition of *tank car facility* to narrow the scope of the definition to only cover facilities that qualify tank cars for service.

PHMSA and FRA anticipate that the proposal to replace the role of the AAR TCC with tank car DCEs, registered with PHMSA and subject to PHMSA and FRA oversight will ensure at least an equivalent level of safety oversight due to improved visibility into the design approval process. PHMSA and FRA have limited oversight and control over the current AAR TCC tank car design approval and QAP approval process. The procedures proposed for the design review in Part 179 are intended to create an accountable, auditable, criteria-based tank car design approval system. Similarly, the tank car facility registration program is designed to create increased visibility of tank car facilities with increased government oversight through the registration program, including possible suspension or termination of a registration. Therefore, there will be no change to the suitability of tank car designs, or to the construction, maintenance, and qualification of tank cars conducted by tank car facilities.

PHMSA does not anticipate any impact to greenhouse gas emissions under this proposed amendment.

3. Miscellaneous Amendments to Highway Cargo Tank Specification and Requalification Requirements

PHMSA proposes to amend a variety of highway cargo tank specification and requalification requirements. While a majority of the intended provisions are for editorial and regulatory clarity, they also include the following substantive revisions:

- Updating the IBR edition of CGA P–26 (formerly TB–2) to the 1997 edition;
- Allowing for the use of a Midland PRD for chlorine gases in cargo tanks and portable tanks;
- Requiring post-weld heat treatment on newly manufactured nurse tanks;
- Requiring combustible liquids and flammable liquids reclassified as combustible liquids to be bonded and grounded prior to and during transfer of lading;
- Allowing the DOT Specification 331 and 338 cargo tank motor vehicle specification plate to be applied to the vehicle instead of the rail chassis;
- Ensuring the mechanical means of remote closure on a cargo tank motor vehicle is not obstructed;
- Requiring that all equipment and instruments be calibrated;
- Allowing the use of video camera or fiber optics equipment for any visual test or inspection;
- Requiring inspection of all pad attachments;
- Limiting the need to remove the upper coupler during inspection; and
- Requiring the cargo tank facility registration number to be marked on the cargo tank following inspection.

These highway amendments are designed to improve regulatory clarity, and therefore encourage compliance with the requirements of the HMR. The HMR's cargo tank construction, maintenance, and qualification regulations have not kept up with technological changes, *e.g.,* the availability of small, high quality video cameras capable of producing images of the interior of a cargo tank shell equivalent to human vision. Revising and updating these cargo tank requirements will improve construction, maintenance, and qualification practices for cargo tanks used to transport hazardous materials. These revisions are intended to decrease the release of hazardous materials to the environment during transportation.

Greenhouse gas emissions would remain the same under this proposed amendment.

4. Cargo Tank Marking Requirements for Petroleum Distillate Fuels

PHMSA proposes to revise the marking requirements for cargo tanks transporting multiple petroleum distillate fuels in the current or previous business day (defined as a day that the operator of the cargo tank motor vehicle is open and operating in commerce). The proposal authorizes a carrier to display the marking of the UN ID number for the petroleum distillate fuel with the lowest flashpoint transported

in that cargo tank during the current or previous business day. For example, a cargo tank used to transport gasoline on Day 1, and diesel fuel only on Day 2, may display ''1203'' on Day 2, because gasoline has a lower flash point than diesel fuel.

PHMSA's analysis of this proposed amendment indicates that for NA1993, UN1202, UN1203, UN1223, and other petroleum distillate fuels, the ERG directs the reader to the same guide page for initial emergency response measures, and PHMSA further requests information from emergency responders describing how emergency response would differ for an accident involving a cargo tank motor vehicle marked ''1993,'' ''1202,'' ''1203,'' ''1223,'' or another UN ID number associated with a petroleum distillate fuel. PHMSA requests information on any known incidents where emergency response was impacted negatively due to a cargo tank motor vehicle displaying ''1203'' when it was transporting a petroleum distillate fuel with a higher flash point.

The substantial time saved during fuel deliveries due to the removal of the requirement to change the ID number displayed inside the placard may provide environmental benefits, including a reduction in greenhouse gases due to a reduction in time cargo tank motors vehicles spend idling while the driver changes the ID number displayed in the placard. PHMSA seeks comment on this, and any other environmental impacts associated with this amendment.

4. Agencies and Persons Consulted During the Consideration Process

PHMSA has coordinated with the FAA, FMCSA, FRA, and the USCG, in the development of this proposed rulemaking. The NPRM has also been made available to other federal agencies within the interagency review process contemplated under Executive Order 12866. PHMSA solicits, and will consider, comments on the NPRM's potential impacts on safety and the environment submitted by members of the public, state and local governments, tribal communities, and industry.

5. Executive Order 12898

Executive Orders 12898 (''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations''),[66] 13985 (''Advancing Racial Equity and Support for Underserved Communities Through the Federal Government''),[67] 13990 (''Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis''),[68] 14008 (''Tackling the Climate Crisis at Home and Abroad''),[69] and DOT Order 5610.2C (''Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'') require DOT agencies to achieve environmental justice as part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects, including interrelated social and economic effects of their programs, policies, and activities on minority populations, low-income populations, and disadvantaged communities.

PHMSA has evaluated this proposed rulemaking under the above Executive Orders and DOT Order 5610.2C and expects it would not cause disproportionately high and adverse human health and environmental effects on minority, low-income, underserved, and other disadvantaged populations and communities. The rulemaking is facially neutral and national in scope; it is neither directed toward a particular population, region, or community, nor is it expected to adversely impact any particular population, region, or community. And because PHMSA expects the rulemaking would not adversely affect the safe transportation of hazardous materials generally, PHMSA does not expect the proposed revisions would entail disproportionately high adverse risks for minority populations, low-income populations, or other underserved and other disadvantaged communities.

The proposed rulemaking could reduce risks to minority populations, low-income populations, or other underserved and other disadvantaged communities. Insofar as the proposed HMR amendments could avoid the release of hazardous materials, the proposed rule could reduce risks to populations and communities—including any minority, low-income, underserved and other disadvantaged populations and communities—in the vicinity of interim storage sites and transportation arteries and hubs. Additionally, as explained in the above discussion of NEPA, PHMSA anticipates that its proposed HMR amendments will yield modest GHG emissions reductions, thereby reducing the risks posed by anthropogenic climate change to minority, low-income, underserved, and other disadvantaged populations and communities.

PHMSA solicits comment on potential impacts to minority, low-income, underserved, and other disadvantaged populations and communities of the proposed rulemaking.

6. Proposed Finding of No Significant Impact

PHMSA anticipates the adoption of the Proposed Action Alternative's regulatory amendments will maintain the HMR's current high level of safety for shipments of hazardous materials transported by highway, rail, and vessel, and as such proposes the HMR amendments in the NPRM would have no significant impact on the human environment. The environmental review outlines the Proposed Action Alternative will avoid adverse safety, environmental justice, and greenhouse gas (GHG) emissions impacts of the proposed action. Furthermore, based on the environmental analysis of provisions described above, PHMSA proposes to find the codification and implementation of this rulemaking would not result in a significant impact to the human environment.

PHMSA welcomes any views, data, or information related to safety or environmental impacts that may result from the NPRM's proposed requirements, the No Action Alternative, and other viable alternatives and their environmental impacts.

I. Privacy Act

In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *http://www.dot.gov/privacy.* DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000,[70] or on DOT's website at *http://www.dot.gov/privacy.*

J. Executive Order 13609 and International Trade Analysis

Executive Order 13609 (''Promoting International Regulatory Cooperation'') [71] requires that agencies must consider whether the impacts associated with significant variations between domestic and international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally. In meeting shared

[66] 59 FR 7629 (Feb. 16, 1994).

[67] 86 FR 7009 (Jan. 25, 2021).

[68] 86 FR 7037 (Jan. 25, 2021).

[69] 86 FR 7619 (Feb. 1, 2021).

[70] 65 FR 19475 (Apr. 11, 2000).

[71] 77 FR 26413 (May 4, 2012).

challenges involving health, safety, labor, security, environmental, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to the Trade Agreements Act, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

PHMSA participates in the establishment of international standards in order to protect the safety of the American public. PHMSA has assessed the effects of this rulemaking to ensure that it does not cause unnecessary obstacles to foreign trade. While the rulemaking would clarify and elaborate on existing PHMSA regulations, PHMSA expects the rulemaking will result in cost savings and greater regulatory flexibility for entities engaged in international commerce. Accordingly, this rulemaking is consistent with Executive Order 13609 and PHMSA's obligations under the Trade Agreement Act, as amended.

K. National Technology Transfer and Advancement Act

The National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) directs federal agencies to use voluntary consensus standards in their regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* specification of materials, test methods, or performance requirements) that are developed or adopted by voluntary consensus standard bodies. This rulemaking involves multiple voluntary consensus standards that are discussed at length in the discussion on § 171.7. See ''Section IV. Section-by-Section Review; Part 171; Section 171.7'' for further details.

L. Executive Order 13211

Executive Order 13211 (''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'') [72] requires federal agencies to prepare a Statement of Energy Effects for any ''significant energy action.'' Executive Order 13211 defines a ''significant energy action'' as any action by an agency (normally published in the **Federal Register**) that promulgates, or is expected to lead to the promulgation of, a final rule or regulation that (1)(i) is a significant regulatory action under Executive Order 12866 or any successor order and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy (including a shortfall in supply, price increases, and increased use of foreign supplies); or (2) is designated by the Administrator of the Office of Information and Regulatory Affairs (OIRA) as a significant energy action.

Although this proposed rule is a significant regulatory action under Executive Order 12866, this action is not likely to have a significant adverse effect on the supply, distribution, or use of energy in the United States. For additional discussion of the anticipated economic impact of this rulemaking, please review the PRIA in the rulemaking docket.

M. Cybersecurity and Executive Order 14082

Executive Order 14082 (''Improving the Nation's Cybersecurity'') [73] expressed the Administration policy that ''the prevention, detection, assessment, and remediation of cyber incidents is a top priority and essential to national and economic security.'' Executive Order 14082 directed the Federal Government to improve its efforts to identify, deter, and respond to ''persistent and increasingly sophisticated malicious cyber campaigns.'' Consistent with Executive Order 14082, TSA in October 2022 issued a Security Directive to reduce the risk that cybersecurity threats pose to critical railroad operations and facilities through implementation of layered cybersecurity measures that provide defense-in-depth.[74]

PHMSA has considered the effects of the NPRM and has preliminarily determined that its proposed regulatory amendments would not materially affect the cybersecurity risk profile for rail transportation of hazardous materials.

PHMSA seeks comment on any other potential cybersecurity impacts of the proposed amendments.

N. Severability

The purpose of this proposed rule is to operate holistically in addressing different issues related to safety and environmental hazards associated with the transportation of hazardous materials. However, PHMSA recognizes that certain provisions focus on unique topics. Therefore, PHMSA preliminarily finds that the various provisions of this proposed rule are severable and able to function independently if severed from each other; thus, in the event a court were to invalidate one or more of this proposed rule's unique provisions, the remaining provisions should stand and continue in effect. PHMSA seeks comment on which portions of this rule should or should not be severable.

List of Subjects

49 CFR Part 107

Administrative practice and procedure, Hazardous materials transportation, Penalties, Reporting and recordkeeping requirements.

49 CFR Part 171

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

49 CFR Part 172

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

49 CFR Part 173

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

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Railroad safety.

49 CFR Part 176

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 177

Hazardous materials transportation, Incorporation by reference, Motor carriers, Radioactive materials,

[72] 66 FR 28355 (May 22, 2001).

[73] 86 FR 26633 (May 17, 2021).

[74] TSA, Security Directive No. 1580/82–2022–01, ''Rail Cybersecurity Mitigation Actions and Testing'' (Oct. 24, 2022).

Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 179

Hazardous materials transportation, Incorporation by reference, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Incorporation by reference, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA proposes to amend 49 CFR chapter I as follows:

PART 107—HAZARDOUS MATERIALS PROGRAM PROCEDURES

■ 1. The authority citation for part 107 continues to read as follows:

Authority: *49 U.S.C. 5101–5128*, *44701*; Pub. L. 101–410 Section 4; *Pub. L. 104–121* Sections 212–213; *Pub. L. 104–134* Section 31001; *Pub. L. 114–74* Section 701 (*28 U.S.C. 2461 note*); *49 CFR 1.81* and *1.97*; *33 U.S.C. 1321*.

■ 2. In § 107.1, revise the definition of ''registration'' to read as follows:

§ 107.1 Definitions.

* * * * *

Registration means a written acknowledgment from the Associate Administrator that a registrant is authorized to perform a function for which registration is required under subchapter C of this chapter (*e.g.,* registration in accordance with 49 CFR 178.503 regarding marking of packagings). For purposes of subparts A through E, ''registration'' does not include registration under subpart F, G, or J of this part.

* * * * *

■ 3. In 107.105, revise paragraph (a)(5) to read as follows:

§ 107.105 Application for special permit.

(a) * * *

(5) For persons required to be registered in accordance with Subpart F, G, or J of this part, in addition to the information listed in paragraph (a)(2) of this section, the application must provide the registration number or the name of the company to which the registration number is assigned if different from the applicant. For persons not required to be registered in accordance with Subpart F, G, or J of this part, in addition to the information listed in paragraph (a)(2) of this section, the application must provide a statement indicating that registration is not required.

* * * * *

■ 4. In § 107.502:

■ a. Revise paragraphs (a)(3), (b), (d), and (e); and

■ b. Add paragraphs (a)(4) through (9) and (f).

The revisions and additions read as follows:

§ 107.502 General registration requirements.

(a) * * *

(3) The terms *cargo tank wall, component,* and *manufacturer* are defined in § 178.320(a) of this chapter. The terms *maintenance, modification,* and *repair* are defined in § 180.403 of this chapter.

(4) *Fixed test and inspection facility* means a single, permanent, and specific geographical location with a physical address where cargo tanks or cargo tank motor vehicles are housed, stored, and maintained for repair or tests and inspections, in accordance with subpart E of part 180 of this chapter.

(5) *FMCSA Agency Decisionmaker* means Assistant Administrator, Federal Motor Carrier Safety Administration, or another FMCSA official authorized to make a final agency decision as specified in this subchapter.

(6) *FMCSA Agency Official* means the official(s) authorized by FMCSA order of delegation to take the actions specified in this subchapter.

(7) *Mobile tester* means a person qualified in accordance with § 180.409 of this chapter to perform repair or test and inspection at a location other than a fixed test and inspection facility.

(8) *Mobile testing* means the conduct of repairs or tests and inspections by a mobile tester in accordance with subpart E of part 180 of this chapter for the continuing qualification, maintenance, or periodic testing of cargo tanks or cargo tank motor vehicles at a location other than at a fixed test and inspection facility.

(9) *Mobile test and inspection unit* means a motor vehicle used by a mobile tester to perform mobile testing.

(b) No person may engage in the manufacture, assembly, certification, inspection, or repair of a cargo tank or cargo tank motor vehicle manufactured under the terms of a DOT specification under subchapter C of this chapter or a special permit issued under this part unless the person is registered with the Department in accordance with the provisions of this subpart. A person employed as a Registered Inspector or Design Certifying Engineer is considered to be registered if the person's employer is registered. The requirements of this paragraph (b) do not apply to a person engaged in the repair of a DOT specification cargo tank used in the transportation of hazardous materials in the United States in accordance with § 180.413(a)(1)(iii) of this chapter.

* * * * *

(d) Persons registering with the Department may submit their registration statement and all of the information required by this subpart, in English, electronically at *https://portal.fmcsa.dot.gov/UrsRegistrationWizard/,* or in hard copy form to: FMCSA Hazardous Materials Division—MC–ECH, 1200 New Jersey Ave., Washington, DC 20590–0001.

(e) Upon determination that a registration statement contains all the information required by this subpart, the Department will send the registrant a letter or provide electronic confirmation verifying receipt of the registration application and assigning a registration number to that person.

(f) A separate registration number will be assigned for each cargo tank manufacturing, assembly, repair facility, or other place of business identified by the registrant.

■ 5. In § 107.503:

■ a. Revise paragraphs (a)(2), (a)(4), and (c); and

■ b. Add paragraph (d).

The revisions and addition read as follows:

§ 107.503 Registration statement.

(a) * * *

(2) Street address, mailing address, telephone number, and email address, if available, for each facility or place of business;

* * * * *

(4) A statement signed by the person responsible for compliance with the applicable requirements of this chapter, certifying knowledge of those requirements and that each employee who is a hazmat employee, including a Registered Inspector or Design Certifying Engineer, meets the minimum qualification requirements set forth in § 171.8 of this chapter, has been trained in accordance with § 172.704, and is knowledgeable and trained in the functions the employee performs. The following language may be used:

I certify that all hazmat employees, including Registered Inspectors and Design Certifying Engineers, performing any function have met the minimum

qualification requirements set forth in 49 CFR 171.8 and/or 180.403 and the training requirements of 49 CFR 172.704; that all persons are knowledgeable and trained in the functions they perform; that I am the person responsible for ensuring compliance with the applicable requirements of this chapter; that I maintain all required documentation to verify compliance; and that I have knowledge of the requirements applicable to the functions to be performed.

* * * * *

(c) In addition to the information required under paragraph (a) of this section, each person who repairs a cargo tank or cargo tank motor vehicle must submit a copy of the repair facility's current National Board Certificate of Authorization for the use of the ''R'' stamp or ASME Certificate of Authorization for the use of the ASME ''U'' stamp.

(d) In addition to the information required under paragraph (a) of this section, each person who performs the wet fluorescent magnetic particle exam must submit a copy of the ASME Code training certificate.

■ 6. Add § 107.505 to read as follows:

§ 107.505 Modification, suspension or termination of registration.

(a) The FMCSA Agency Official may modify, suspend, or terminate a registration, as appropriate, on finding that:

(1) Because of a change in circumstances, the registration requires modification, is no longer needed, or would no longer be granted if applied for;

(2) The application contained inaccurate or incomplete information, and the registration would not have been granted had the application been accurate and complete;

(3) The application contained deliberately inaccurate or incomplete information; or

(4) The holder knowingly has violated the terms of the registration or an applicable requirement of this chapter in a manner demonstrating lack of fitness to conduct the activity for which registration is required.

(b) Except as provided in paragraph (c) of this section, before a registration is modified, suspended, or terminated, the FMCSA Agency Official notifies the holder in writing or by electronic means of the proposed action and the reasons for it, and provides an opportunity to show cause why the proposed action should not be taken.

(1) The holder may file a response in writing or by electronic means with the FMCSA Agency Official within 30 days of service of notice of the proposed action.

(2) After considering the holder's written response, or after 30 days have passed without response since service of the notice, the FMCSA Agency Official notifies the holder in writing or by electronic means of the decision with a brief statement of reasons and the effective date of the action.

(c) The rules for service and computation of time in §§ 386.6 and 386.8 of this title shall apply to this section, except that electronic service is permitted.

(d) If FMCSA determines that a violation of a provision of the federal hazardous material transportation law, or a regulation or order prescribed under that law, or an unsafe condition or practice, constitutes or is causing an imminent hazard, as defined in § 109.1 of this subchapter, FMCSA may issue an immediately effective emergency order to the registration holder in accordance with § 109.17 of this subchapter. Petitions for review of the emergency order shall be governed by § 109.19 of this subchapter.

■ 7. Add § 107.506 to read as follows:

§ 107.506 Reconsideration.

(a) A registration holder may request that the FMCSA Agency Official reconsider a decision under § 107.505 of this part. The request for reconsideration must:

(1) Be in writing or by electronic means and served within twenty days of service of the decision;

(2) State in detail any alleged errors of fact, law, or procedure;

(3) Explain any corrective actions taken;

(4) Enclose any additional information needed to support the request to reconsider; and

(5) State in detail the modification of the final decision sought.

(b) A decision issued under § 107.505 of this part remains effective pending a decision on reconsideration. The FMCSA Agency Official will consider requests to stay the decision using the criteria set forth in § 107.507(b)(1)–(4) of this part.

(c) The FMCSA Agency Official may request additional information or documents and, to ensure that the deficiencies identified as the basis for the action have been corrected, may conduct additional investigation. If the registration holder does not provide the information requested, the FMCSA Agency Official may deny the petition for reconsideration. The FMCSA Agency Official considers all information and documentation submitted on reconsideration.

(d) The FMCSA Agency Official grants or denies, in whole or in part, the relief requested and informs the requesting person in writing or by electronic means of the decision.

(e) The rules for service and computation of time in §§ 386.6 and 386.8 of this title shall apply to this section, except that electronic service is permitted.

■ 8. Add § 107.507 to read as follows:

§ 107.507 Appeal.

(a) A person who requested reconsideration under § 107.506 and is denied the relief requested may appeal to the FMCSA Agency Decisionmaker. The appeal must be in writing and served on the Agency Decisionmaker, ATTN: Adjudications Counsel, Federal Motor Carrier Safety Administration, 1200 New Jersey Avenue SE Washington, DC 20590–0001, or by submitting the documents electronically to *fmcsa.adjudication@dot.gov.* The appeal must also be served on all parties to the proceeding. The appeal must:

(1) Be served within 30 days of service of the FMCSA Agency Official's decision on reconsideration;

(2) State in detail any alleged errors of fact, law, or procedure;

(3) Enclose any additional information needed to support the appeal; and

(4) State in detail the modification of the final decision sought.

(b) The FMCSA Agency Official's action remains effective pending a decision on appeal. Requests for a stay of the FMCSA Agency Official's action will be considered using the following criteria:

(1) There is a substantial likelihood that the requesting party will prevail on the merits;

(2) The requesting party will suffer irreparable injury absent the stay;

(3) The threatened injury outweighs whatever damage the stay may cause the opposing party; and

(4) The stay will not harm the public interest.

(c) The FMCSA Agency Official files a response to the appeal no later than 30 days following service of the appeal. The FMCSA Agency Official addresses each assignment of error by producing evidence or legal argument that supports the Agency Official's determination on that issue. The Agency Official's determination may be supported by circumstantial or direct evidence and the reasonable inferences drawn therefrom. The burden of proof shall be on the FMCSA Agency Official.

(d) The FMCSA Agency Decisionmaker may ask the parties to

submit additional information. If the registration holder does not provide the information requested, the Agency Decisionmaker may dismiss the petition for review. The FMCSA Agency Decisionmaker grants or denies, in whole or in part, the relief requested and informs the appellant in writing of the decision on appeal. The FMCSA Agency Decisionmaker decision on the appeal is the final agency action.

(e) The rules for service, filing of documents, and computation of time in §§ 386.6, 386.7, and 386.8 of this title shall apply to this section, except that electronic service is permitted.

■ 9. In § 107.701, revise paragraph (c) to read as follows:

§ 107.701 Purpose and scope.

* * * * *

(c) Registration under subpart F, G, or J of this part is not subject to the procedures of this subpart.

■ 10. In part 107, subpart J is added to read as follows:

Subpart J—Registration of Tank Car Facilities and Design Certifying Engineers

§ 107.901 Purpose and scope.

(a) This subpart establishes a registration procedure for tank car facilities and tank car Design Certifying Engineers.

(b) Persons who apply for registration in accordance with this subpart must be familiar with the requirements set forth in part 179 and part 180, subpart F of this chapter.

§ 107.903 Definitions.

The following definitions apply for the purpose of this subpart:

Associate Administrator for Safety, FRA means the Federal Railroad Administration, Associate Administrator for Safety.

Design Certifying Engineer is defined in § 171.8 of this chapter.

FRA Administrator means the Administrator of the Federal Railroad Administration.

Qualification is defined in § 180.503 of this chapter.

Tank car is defined in § 179.2 of this chapter.

Tank car facility is defined in § 179.2 of this chapter.

Tank car tank is defined in § 180.503 of this chapter.

§ 107.905 Tank car facility registration.

(a) No person may engage in the qualification of a tank car manufactured and maintained under the terms of a DOT specification under subchapter C of this chapter or a special permit issued under this part unless the person is registered with the Department in accordance with the provisions of this subpart.

(b) A person who performs functions subject to the provisions of this subpart may perform only those functions that have been identified to the Department in accordance with the procedures of this subpart.

(c) Persons registering a tank car facility may submit their registration statements and all the information required by this subpart, in English, electronically at *www.phmsa.dot.gov* or in hard copy form to: Associate Administrator of Hazardous Materials Safety (Attention: General Approvals and Permits, PHH–13) Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, 1200 New Jersey Avenue SE, Washington, DC 20590–0001.

(d) Each person must submit a separate registration statement and each tank car facility will be assigned a unique registration number.

(e) Upon determination that a tank car facility registration statement contains all the information required by this subpart, the Department will send the registrant a letter or provide electronic confirmation verifying receipt of the registration application and assigning a registration number to that facility.

(f) Each tank car facility registration statement must contain the following information:

(1) Name of business;

(2) Street address, mailing address, telephone number, and email address, if available, for the facility or place of business;

(3) A statement indicating whether the facility uses mobile testing/inspection equipment to perform manufacturing, maintenance, or qualification at a location other than the address listed in paragraph (f)(2) of this section;

(4) A statement signed by the principal, officer, partner, or employee of the facility responsible for compliance with the applicable requirements of this chapter, certifying knowledge of those requirements and that each employee who is a hazmat employee has been trained in accordance with § 172.704 of this chapter and is knowledgeable and trained in the functions the employee performs, and that the facility's quality assurance program complies with the requirements of § 179.7 of this chapter. The following statement may be used:

I certify that this facility operates in conformance with minimum requirements set forth in this chapter; that all persons are knowledgeable and trained in the functions they perform; that I am the person responsible for ensuring compliance with the applicable requirements of this chapter; that I maintain all required documentation to verify compliance; that I have knowledge of the requirements applicable to the functions to be performed; and that this tank car facility's quality assurance program is in compliance with the requirements of 49 CFR 179.7.

(5) A description of the specific qualification functions to be performed on tank cars. For example:

(i) External visual inspection;

(ii) Leakproofness testing; or

(iii) Ultrasonic examination.

(6) A description of any other tank car-related functions performed at the facility. For example:

(i) Manufacture; or

(ii) Maintenance.

(7) An identification of the types of DOT specification and special permit tank cars that the registrant intends to qualify and manufacture or maintain, if applicable;

(8) Each tank car facility must submit an executive summary of the facility's current quality assurance program, sufficient to demonstrate compliance with the required elements of § 179.7(b) of this chapter; and

(9) If the registrant is not a resident of the United States, the name and address of a permanent resident of the United States designated in accordance with § 105.40 of this subchapter to serve as agent for service of process.

§ 107.907 Tank car Design Certifying Engineer registration.

(a) No person may approve the design of a tank car or service equipment manufactured in accordance with subchapter C of this chapter or a special permit issued under this part unless the person is registered with the Department in accordance with the provisions of this subpart.

(b) A person who performs functions subject to the provisions of this subpart may perform only those functions that have been identified to the Department in accordance with the procedures of this subpart.

(c) Persons registering a tank car Design Certifying Engineer may submit

their registration statements and all the information required by this subpart, in English, electronically at *www.phmsa.dot.gov* or in hard copy form to: Associate Administrator of Hazardous Materials Safety (Attention: General Approvals and Permits, PHH–13), Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, 1200 New Jersey Avenue SE Washington, DC 20590–0001.

(d) Each registration statement must be in English and contain the following information:

(1) Name of business;

(2) Street address, mailing address, telephone number, and email address, if available, for each person or place of business;

(3) A statement signed by the person responsible for compliance with the applicable requirements of this chapter, certifying knowledge of those requirements and that each employee who is a hazmat employee, including a Design Certifying Engineer, meets the minimum qualification requirements set forth in § 171.8 of this chapter; has been trained in accordance with § 172.704 of this chapter; and is knowledgeable and trained in the functions the employee performs. The following statement may be used:

I certify that all hazmat employees performing any hazardous materials transportation function have met the training requirements of 49 CFR 172.704; that any Design Certifying Engineer hazmat employees have met the minimum qualification requirements set forth in 49 CFR 171.8 for Design Certifying Engineers; that all persons are knowledgeable and trained in the hazardous materials transportation functions they perform; that I am the person responsible for ensuring compliance with the applicable requirements of this chapter; that I maintain all required documentation to verify compliance; and that I have knowledge of the requirements applicable to the hazardous materials transportation functions to be performed.

(4) A description of the specific functions to be performed, *e.g.:*

(i) New tank car design;

(ii) Tank car modification;

(iii) New service equipment design; and

(iv) Service equipment modification.

(5) An identification of the types of DOT specification and special permit tank cars and service equipment whose designs the registrant intends to review;

(6) The names and a description of the experience meeting the definition in § 171.8 of this chapter for each individual engineer employed as a Design Certifying Engineer; and

(7) If the registrant is not a resident of the United States, the name and address of a permanent resident of the United States designated in accordance with § 105.40 of this subchapter to serve as an agent for service of process.

(e) Upon determination that a registration statement contains all of the information required by this subpart, the Department will send the registrant a letter or provide electronic confirmation verifying receipt of the registration application and assigning a registration number to that person. A separate registration number will be assigned to each individual employed as a Design Certifying Engineer and identified in the registration statement by the registrant.

§ 107.909 Period of registration, updates, and record retention.

(a) The period of registration for both tank car facilities and tank car Design Certifying Engineers will be for a maximum of six years from the date of the original registration and for six-year renewal periods thereafter.

(b) Any correspondence with the Department must contain the registrant's name and registration number.

(c) A registration must be renewed prior to expiration of the period of registration to ensure continued authorization to perform authorized duties by submitting an up-to-date registration statement containing the information prescribed by §§ 107.905 or 107.907 of this subpart. Any person initially registered under the provisions of §§ 107.905 or 107.907 of this subpart and who is in good standing is eligible for renewal.

(d) A registrant shall provide notification to PHMSA within 30 days of any of the following occurrences:

(1) Any change in the registration information submitted under §§ 107.905 or 107.907 of this subpart, (*e.g.,* change of company name, address, ownership, or names and description of the experience meeting the definition in § 171.8 of this chapter for each individual engineer employed as a Design Certifying Engineer);

(2) Replacement of the person responsible for compliance with the requirements in §§ 107.905(f)(4) or 107.907(d)(3) of this subpart. If this occurs, the registrant shall resubmit the required certification;

(3) A change in function, such as from maintenance to manufacture, an addition of a function, or a change to the types of qualifications or certifications of tank cars conducted by the facility; or

(4) The facility or Design Certifying Engineer no longer performs any functions requiring a registration under this subpart.

(e) Each registrant shall maintain a current copy of the registration information submitted to the Department and a current copy of the registration number received from the Department at the location identified in §§ 107.905(f)(2) or 107.907(d)(2) of this subpart during such time the person is registered with the Department and for two (2) years thereafter.

§ 107.911 Modification, Suspension, or Termination of Registration.

(a) The Associate Administrator for Safety, FRA may modify, suspend, or terminate a tank car facility or tank car Design Certifying Engineer registration, as appropriate, on finding that:

(1) Because of a change in circumstances, the registration is no longer needed or would no longer be granted if applied for;

(2) The application contained inaccurate or incomplete information, and the registration would not have been granted had the application been accurate and complete;

(3) The application contained deliberately inaccurate or incomplete information; or

(4) The holder knowingly has violated the terms of the registration or an applicable requirement of this chapter in a manner demonstrating lack of fitness to conduct the activity for which registration is required.

(b) Except as provided in paragraph (c) of this section, before a registration is modified, suspended, or terminated, the Associate Administrator for Safety, FRA notifies the holder of the proposed action and the reasons for it, and provides an opportunity to show cause why the proposed action should not be taken.

(1) The holder may file a response with the Associate Administrator for Safety, FRA within 30 days of receipt of notice of the proposed action in accordance with the procedures of 49 CFR 209.9 via *FRAlegal@dot.gov.*

(2) After considering the holder's response, or after 30 days have passed without response since receipt of the notice, the Associate Administrator for Safety, FRA notifies the holder of the final decision with a brief statement of reasons.

(c) The Associate Administrator for Safety, FRA, if necessary to avoid a risk of significant harm to persons or property, may, in the notification, declare the proposed action immediately effective.

§ 107.913 Reconsideration.

(a) A registration holder may request that the Associate Administrator for Safety, FRA reconsider a decision under § 107.911 of this subpart. The request must:

(1) Be filed in accordance with the procedures of 49 CFR 209.9 with *FRALegal@dot.gov* within twenty days of receipt of the decision;

(2) State in detail any alleged errors of fact and law;

(3) Enclose any additional information needed to support the request to reconsider; and

(4) State in detail the modification of the final decision sought.

(b) The Associate Administrator for Safety, FRA considers newly submitted information on a showing that the information could not reasonably have been submitted during application processing.

(c) The Associate Administrator for Safety, FRA grants or denies, in whole or in part, the relief requested and informs the requesting person of the decision.

§ 107.915 Appeal.

(a) A person who requested reconsideration under § 107.913 of this subpart and is denied the relief requested may appeal to the FRA Administrator. The appeal must:

(1) Be filed in accordance with the procedures of 49 CFR 209.9 with *FRALegal@dot.gov* within 30 days of receipt of the Associate Administrator for Safety, FRA's decision on reconsideration;

(2) State in detail any alleged errors of fact and law;

(3) Enclose any additional information needed to support the appeal; and

(4) State in detail the modification of the final decision sought.

(b) The FRA Administrator, if necessary to avoid a risk of significant harm to persons or property, may declare that the Associate Administrator for Safety, FRA's action remain effective pending a decision on appeal.

(c) The FRA Administrator grants or denies, in whole or in part, the relief requested and informs the appellant of the decision on appeal. The FRA Administrator's decision on the appeal is the final administrative action.

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

■ 11. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; Pub. L. 101–410 section 4; Pub. L. 104–134, section 31001; Pub. L. 114–74 section 701 (28 U.S.C. 2461 note); 49 CFR 1.81 and 1.97.

■ 12. In § 171.6, revise the table in paragraph (b)(2) to read as follows:

§ 171.6 Control numbers under the Paperwork Reduction Act.

* * * * *

(b) * * *

(2) * * *

Current OMB control number	Title	Title 49 CFR part or section where identified and described
2137–0014	Cargo Tank Specification Requirements	§§ 107.503, 107.504, 107.505, 107.506, 107.507, 178.320, 178.337, 178.338, 178.345, 180.405, 180.407, 180.409, 180.413, 180.415, 180.417.
2137–0018	Inspection and Testing of Portable Tanks and Intermediate Bulk Containers.	§§ 173.24, 173.32, 178.3, 178.255, 178.273, 178.274, 178.703, 178.801, 180.352, 180.605.
2137–0022	Testing, Inspection, and Marking Requirements for Cylinders.	§§ 173.5b, 173.302a, 173.303, 173.304, 173.309, 178.2, 178.3, 178.35, 178.44, 178.45, 178.46, 178.57, 178.59, 178.60, 178.61, 178.68, 180.205, 180.207, 180.209, 180.211, 180.213, 180.215, 180.217, Appendix C to part 180.
2137–0034	Hazardous Materials Shipping Papers and Emergency Response Information.	§§ 172.200, 172.201, 172.202, 172.203, 172.204, 172.505, 172.600, 172.602, 172.604, 172.606, 173.6, 173.7, 173.22, 173.56, 174.24, 174.26, 174.114, 175.30, 175.31, 175.33, 176.24, 176.27, 176.30, 176.36, 176.89, 177.817.
2137–0039	Hazardous Materials Incidents Reports	§§ 171.15, 171.16, 171.21.
2137–0051	Rulemaking and Special Permit Petitions.	§§ 105.30, 105.40, 106.95, 106.110, 107.105, 107.107, 107.109, 107.113, 107.117, 107.121, 107.123, 107.125, 107.205, 107.211, 107.215, 107.217, 107.219, 107.221, 107.223.
2137–0510	RAM Transportation Requirements	Part 173, subpart I, §§ 173.22, 173.411, 173.415, 173.416, 173.417, 173.457, 173.471, 173.472, 173.473, 173.476.
2137–0542	Flammable Cryogenic Liquids	§§ 173.318, 177.816, 177.840, 180.405.
2137–0557	Approvals for Hazardous Materials	§§ 107.402, 107.403, 107.405, 107.705, 107.713, 107.715, 107.717, 107.803, 107.805, 107.807, 110.30, 172.101, 172.102, Special Provisions 19, 26, 53, 55, 60, 105, 118, 121, 125, 129, 131, 133, 136, B45, B55, B61, B69, B77, B81, N10, N72, 173.2a, 173.4, 173.7, 173.21, 173.22, 173.24, 173.31, 173.38, 173.51, 173.56, 173.58, 173.59, 173.124, 173.128, 173.159, 173.166, 173.171, 173.214, 173.222, 173.224, 173.225, 173.245, 173.301, 173.305, 173.306, 173.314, 173.315, 173.316, 173.318, 173.334, 173.340, 173.411, 173.433, 173.457, 173.471, 173.472, 173.476, 174.50, 174.63, 175.8, 175.85, 175.701, 175.703, 176.168, 176.340, 176.704, 178.3, 178.35, 178.47, 178.53, 178.273, 178.274, 178.503, 178.509, 178.605, 178.606, 178.608, 178.801, 178.813, 180.213.
2137–0559	Rail Carrier and Tank Car Tanks Requirements, Rail Tank Car Tanks—Transportation of Hazardous Materials by Rail.	§§ 107.905, 107.907, 107.909, 107.911, 107.913, 107.915, 172.102, Special provisions: B45, B46, B55, B61, B69, B77, B78, B81; 173.10, 173.31, 174.14, 174.50, 174.63, 174.104, 174.114, 174.204, 179.3, 179.4, 179.5, 179.6, 179.7, 179.11, 179.18, 179.22, 179.100–9, 179.100–12, 179.100–13, 179.100–16, 179.100–17, 179.102–4, 179.102–17, 179.103–1, 179.103–2, 179.103–3, 179.103–5, 179.200–10, 179.200–14, 179.200–15, 179.200–16, 179.200–17, 179.200–19, 179.201–3, 179.201–8, 179.201–9, 179.220–4, 179.220–7, 179.220–8, 179.220–13, 179.220–15, 179.220–17, 179.220–18, 179.220–20, 179.220–22, 179.300–3, 179.300–7, 179.300–9, 179.300–12, 179.300–13, 179.300–15, 179.300–20, 179.400–3, 179.400–4, 179.400–11, 179.400–13, 179.400–16, 179.400–17, 179.400–19, 179.400–20, 179.500–5, 179.500–8, 179.500–12, 179.500–18, 180.505, 180.509, 180.515, 180.517.
2137–0572	Testing Requirements for Non-bulk Packages.	§§ 173.168, 178.2, 178.601, Appendix C to part 178, Appendix D to part 178.

Current OMB control number	Title	Title 49 CFR part or section where identified and described
2137–0582	Container Certification Statement	§§ 176.27, 176.172.
2137–0586	Hazardous Materials Public Sector Training and Planning Grants.	Part 110.
2137–0591	Response Plans for Shipments of Oil	Part 130.
2137–0595	Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service.	§§ 173.315, 178.337–8, 178.337–9, 180.405, 180.416.
2137–0612	Hazardous Materials Security Plans	Part 172, subpart I, §§ 172.800, 172.802, 172.804.
2137–0613	Subsidiary Hazard Class and Number/Type of Packagings.	§§ 172.202, 172.203.
2137–0620	Inspection and Testing of Meter Provers.	Part 173, subpart A, § 173.5a.
2137–0621	Requirements for United Nations (UN) Cylinders.	§§ 173.301, 173.304, 173.304b, 178.69, 178.70, 178.74, 178.75, 180.207, 180.209, 180.212, 180.215, 180.217.
2137–0628	Flammable Hazardous Materials by Rail Transportation.	§§ 130.120, 171.16, 173.41, 173.145, 173.150, 174.310, 174.312.

■ 13. In § 171.7:
■ a. Revise paragraphs (h)(39), (k), and (l)(3);
■ b. Remove and reserve paragraph (l)(4); and
■ c. Revise paragraph (n)(21).
The revisions read as follows:

§ 171.7 Reference material.

* * * * *

(h) * * *

(39) ASTM D 1838–64 Copper Strip Corrosion by Liquefied Petroleum (LP) Gases, 1964 (Reapproved 1968), into § 173.315.

* * * * *

(k) *Association of American Railroads,* American Railroads Building, Suite 1000, 425 Third Street SW, Washington, DC 20024; telephone 877–999–8824, *http://www.aarpublications.com/*

(1) AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication, and Construction of Freight Cars, Chapter 5, Paragraph 5.1, Workmanship, April 2011, into § 179.16.

(2) AAR Manual of Standards and Recommended Practices, Section C—II Specifications for Design, Fabrication, and Construction of Freight Cars, Chapter 6, June 2015, into § 179.400–6.

(3) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Chapter 1, November 2014, into § 180.517.

(4) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Chapter 2, November 2014, into § 179.102–3.

(5) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Chapter 3, November 2014, into §§ 173.241, 173.242, 173.247.

(6) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Chapter 5, November 2014, into § 179.16.

(7) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Chapter 6, November 2014, into § 179.10.

(8) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix A, November 2014, into §§ 173.314; 179.15; 179.300–15; 179.300–17; 179.400–20.

(9) [Reserved]

(10) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix C, November 2014, into §§ 179.22; 179.220–26; 179.400–25.

(11) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix D, November 2014, into § 180.509.

(12) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix E, November 2014, into §§ 173.31; 179.20; 179.100–12; 179.100–14; 179.101–1; 179.103–5; 179.200–9; 179.200–13; 179.200–17; 179.220–14; 179.220–18.

(13) [Reserved]

(14) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix M, November 2014, into §§ 179.200–7; 179.201–6; 179.220–6; 179.220–7; 179.400–5; 179.400–8.

(15) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix R, November 2014, except paragraphs 1.1, 1.2, 3.2, 3.3, 3.4, 5.5 into § 179.6.

(16) [Reserved]

(17) [Reserved]

(18) AAR Manual of Standards and Recommended Practices, Section C—III, Specifications for Tank Cars, Specification M–1002 (AAR Specifications for Tank Cars), Appendix W, November 2014, except paragraph 1.2 into §§ 179.11; 179.100–9; 179.100–10; 179.100–13; 179.100–18; 179.102–1; 179.102–4; 179.102–17; 179.200–10; 179.200–11; 179.200–22; 179.220–10; 179.220–11; 179.300–9; 179.300–10; 179.400–5; 179.400–11; 179.400–12; 179.400–15; 179.400–18.

(19) AAR Manual of Standards and Recommended Practices, Section I, Specially Equipped Freight Car and Intermodal Equipment, 1988, into §§ 174.55; 174.63.

(20) AAR Standard 286; AAR Manual of Standards and Recommended Practices, Section C, Car Construction Fundamentals and Details, Standard S–286, Free/Unrestricted Interchange for 286,000 lb. Gross Rail Load Cars (Adopted 2002; Revised: 2003, 2005, 2006, 2016), into § 179.13.

* * * * *

(l) * * *

(3) Pamphlet 49, Recommended Practices for Handling Chlorine Bulk Highway Transports, Edition 10, December 2016, into § 173.315.

(4) [Reserved]

* * * * *

(n) * * *

(21) CGA Technical Bulletin P–26, Guidelines for Inspection and Repair of MC–330 and MC–331 Anhydrous Ammonia Cargo Tanks (formerly TB–2), 1997, into §§ 180.407; 180.413.

* * * * *

■ 14. In § 171.8, revise the definitions of ''cargo tank'' and ''design certifying engineer'' to read as follows:

§ 171.8 Definitions and abbreviations.

* * * * *

Cargo tank means a bulk packaging that:

(1) Is a tank intended primarily for the carriage of liquids, gases, solids, or semi-solids and includes appurtenances, closures, components, and reinforcements (for cargo tank specifications, see 49 CFR 178.320, 178.337–1, or 178.338–1, 178.345–1, as applicable);

(2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but which, by reason of its size, construction or attachment to a motor vehicle is loaded or unloaded without being removed from the motor vehicle; and

(3) Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.

* * * * *

Design Certifying Engineer means a person registered with the Department, in accordance with subparts F or J of part 107 of this chapter, who has the knowledge and ability to perform stress analysis of pressure vessels and otherwise determine whether a cargo tank or tank car design and construction meets the applicable DOT specification. A Design Certifying Engineer meets the knowledge and ability requirements by meeting any one of the following requirements:

(1) For cargo tanks:

(i) Has an engineering degree and at least one year of work experience in cargo tank structural or mechanical design;

(ii) Is currently registered as a professional engineer by appropriate authority of a state of the United States or a province of Canada; or

(iii) Has at least three years' experience in performing the duties of a Design Certifying Engineer prior to September 1, 1991.

(2) For tank cars:

(i) Has an engineering degree and at least one year of work experience in tank car structural or mechanical design; or

(ii) Is currently registered as a professional engineer by an appropriate authority of a state of the United States or a province of Canada.

* * * * *

■ 15. In § 171.22, revise paragraph (f)(4) to read as follows:

§ 171.22 Authorization and conditions for the use of international standards and regulations.

* * * * *

(f) * * *

(4) Each person who provides for transportation or receives for transportation (see §§ 174.24, 175.30, 176.24, and 177.817 of this subchapter) a shipping paper must retain a copy of the shipping paper or an electronic image thereof that is accessible at or through its principal place of business in accordance with § 172.201(e) of this subchapter. The shipping paper shall be made readily accessible for inspection to an authorized official of a federal, state, or local government agency.

* * * * *

■ 16. In § 171.23, revise paragraphs (b)(5) introductory text and (b)(5)(iii) to read as follows:

§ 171.23 Requirements for specific materials and packagings transported under the ICAO Technical Instructions, IMDG Code, Transport Canada TDG Regulations, or the IAEA Regulations.

* * * * *

(b) * * *

(5) *Hazardous substances.* A material meeting the definition of a hazardous substance, as defined in § 171.8, must conform to the shipping paper requirements in § 172.203(c) of this subchapter. Non-bulk packages must be marked in accordance with the requirements in § 172.324 of this subchapter:

* * * * *

(iii) The letters ''RQ'' must be entered on the shipping paper either before or after the basic description and marked on a non-bulk package in association with the proper shipping name for each hazardous substance listed.

* * * * *

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

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

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

■ 18. In § 172.101, revise paragraph (j) introductory text to read as follows:

§ 172.101 Purpose and use of the hazardous materials table.

* * * * *

(j) *Column 9: Quantity limitations.* Columns 9A and 9B specify the maximum quantities that may be offered for transportation in one package by passenger-carrying aircraft or passenger-carrying rail (Column 9A) or by cargo aircraft only (Column 9B), subject to the following:

* * * * *

■ 19. In § 172.102, revise paragraph (c)(1), special provision 13 and paragraph (c)(3), special provision B45 to read as follows:

§ 172.102 Special provisions.

* * * * *

(c) * * *

(1) * * *

13 The words ''Inhalation Hazard'' shall be entered on each shipping paper in association with the shipping description, shall be marked on each non-bulk package in association with the proper shipping name and identification number, and shall be marked on two opposing sides of each bulk package. The size of a marking on a bulk package must conform to § 172.302(b) of this subchapter. In addition, security plan requirements in part 172, subpart I, apply. The requirements of §§ 172.203(m) and 172.505 of this subchapter do not apply.

* * * * *

(3) * * *

B45 Each tank must have a reclosing combination pressure relief device, equipped with stainless steel or platinum rupture discs, approved by a tank car Design Certifying Engineer.

* * * * *

■ 20. In § 172.303, add paragraph (b)(4) to read as follows:

§ 172.303 Prohibited marking.

* * * * *

(b) * * *

(4) The display of a BIOHAZARD marking, a ''HOT'' marking, or a sour crude oil hazard marking in accordance with §§ 172.323(c), 172.325(c), or 172.327(a), of this part, respectively.

■ 21. In § 172.328, revise paragraph (d) to read as follows:

§ 172.328 Cargo tanks.

* * * * *

(d) *Emergency shutoff marking.* For all cargo tank motor vehicles subject to emergency remote shutoff device requirements in accordance with this subchapter, each on-vehicle manually-activated remote shutoff device for closure of the internal or external self-closing stop valve must be identified by marking ''Emergency Shutoff'' in letters

at least 0.75 inches in height, in a color that contrasts with its background, and located in an area immediately adjacent to the means of closure.

* * * * *

■ 22. In § 172.336, revise the table in paragraph (c) to read as follows:

§ 172.336 Identification numbers; special provisions.

* * * * *

(c) * * *

Packaging:	When:	Then the alternative marking requirement is:
On the ends of portable tanks, cargo tanks, or tank cars.	They have more than one compartment and hazardous materials with different identification numbers are being transported therein.	The identification numbers on the sides of the tank are displayed in the same sequence as the compartments containing the materials they identify.
On cargo tanks	They contain only gasoline	The tank is marked ''Gasoline'' on each side and rear in letters no less than 50 mm (2 inches) high or is placarded in accordance with § 172.542(c).
On cargo tanks	They contain only fuel oil	The cargo tank is marked ''Fuel Oil'' on each side and rear in letters no less than 50 mm (2 inches) high, or is placarded in accordance with § 172.544(c).
On one end of nurse tanks if that end contains valves, fittings, regulators or gauges when those appurtenances prevent the markings and placard from being properly placed and visible.	They meet the provisions of § 173.315(m) of this subchapter.	N/A.
On each compartment of compartmented cargo tanks or compartmented tank cars.	The cargo tank or tank car contains more than one petroleum distillate fuel.	The identification number for the liquid petroleum distillate fuel having the lowest flash point in any one compartment is displayed. However, if a cargo tank or tank car compartment contains gasoline and alcohol fuel blends consisting of more than 10% ethanol the identification number ''3475'' or ''1987,'' as appropriate, must also be displayed for that compartment.
On cargo tanks (including compartmented cargo tanks).	They transport more than one petroleum distillate fuel in different trips on the previous or current business day.	The identification number for the liquid petroleum distillate fuel having the lowest flash point transported in that previous or current business day is displayed. If the cargo tank contains gasoline and alcohol fuel blends consisting of more than 10% ethanol, the identification number ''3475'' or ''1987,'' as appropriate, must also be displayed, and the identification numbers ''3475'' or ''1987,'' may only be displayed if the material is present in the cargo tank during transportation.

* * * * *

■ 23. In § 172.504, revise paragraph (b) to read as follows:

§ 172.504 General placarding requirements.

* * * * *

(b) *DANGEROUS placard.* A freight container, unit load device, transport vehicle, or rail car that contains non-bulk packages with two or more categories of hazardous materials that require different placards specified in table 2 of paragraph (e) of this section may be placarded with a DANGEROUS placard instead of the separate placarding specified for each of the materials in table 2 of paragraph (e) of this section. However, the DANGEROUS placard may not be used under the following conditions:

(1) When 1,000 kg (2,205 pounds) aggregate gross weight or more of one category of material is loaded therein at one loading facility on a freight container, unit load device, transport vehicle, or rail car, the placard specified in table 2 of paragraph (e) of this section for that category must be applied; or

(2) When a hazardous material is transported by vessel.

* * * * *

■ 24. In § 172.516, revise paragraph (d) to read as follows:

§ 172.516 Visibility and display of placards.

* * * * *

(d) Recommended specifications for a placard holder are set forth in Appendix C of this part. Except for a placard holder similar to that contained in Appendix C to this part or contained in Appendix C to this part prior to [EFFECTIVE DATE OF THE FINAL RULE], the means used to attach a placard may not obscure any part of its surface other than the borders.

* * * * *

■ 25. In § 172.704:

■ a. Add paragraph (a)(2)(iii); and

■ b. Revise paragraph (e)(1). The revision and addition read as follows:

§ 172.704 Training requirements.

(a) * * *

(2) * * *

(iii) For hazardous materials employees transporting hazardous materials by highway, function specific training must include the training requirements of § 177.816, as applicable.

* * * * *

(e) * * *

(1) A hazmat employee who manufactures, repairs, modifies, reconditions, or tests packagings, as qualified for use in the transportation of hazardous materials, and who does not perform any other function subject to the requirements of this subchapter, is not subject to the training requirements of paragraphs (a)(3) and (a)(4) of this section.

* * * * *

■ 26. In § 172.820, add paragraph (d)(3) to read as follows:

§ 172.820 Additional planning requirements for transportation by rail.

* * * * *

(d) * * *

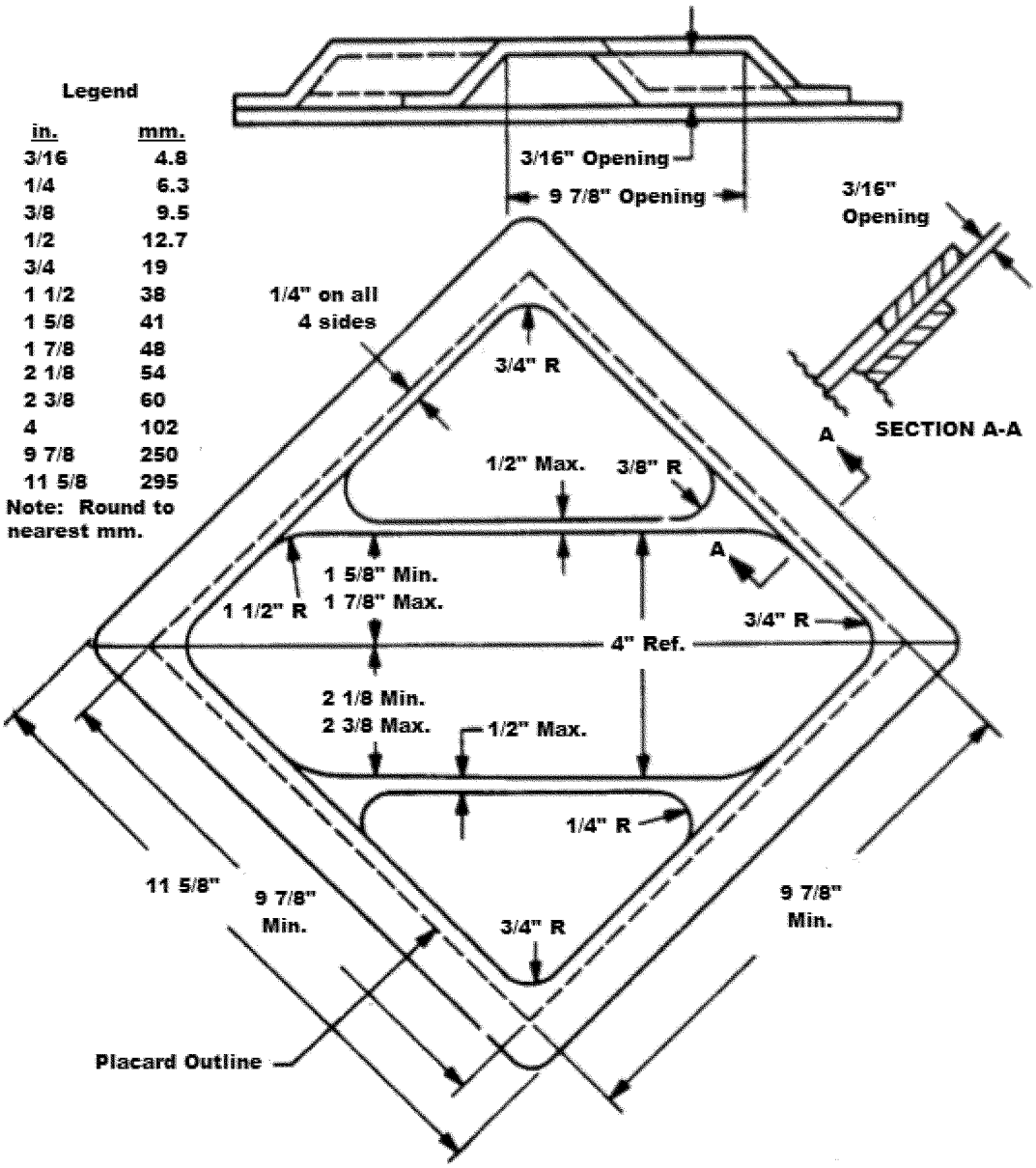
(3) If the rail carrier determines that no practicable alternative route exists, including consideration of interchange agreements, the requirements of paragraphs (d)(1) and (d)(2) do not apply. The rail carrier must describe, in

writing, the remediation or mitigation measures to be implemented, if any, on the primary route in conformance with § 172.820(d)(1)(iii) and certify that an alternative route does not exist for a given primary route.

* * * * *

■ 27. Revise appendix C to part 172 to read as follows:

Appendix C to Part 172—Dimensional Specifications for Recommended Placard Holder



PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

■ 28. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

■ 29. In § 173.31, revise paragraphs (a)(2), (d) and (g)(1) to read as follows:

§ 173.31 Use of tank cars.

(a) * * *

(2) Tank cars and appurtenances may be used for the transportation of any commodity for which they are authorized in this part and specified on the Design Approval Certificate or for tank cars constructed prior to [DATE ONE YEAR FROM EFFECTIVE DATE], the certificate of construction (AAR Form 4–2 or by addendum on Form R–1). See § 179.5 of this subchapter. Transfer of a tank car from one specified service on its certificate of construction or Design Approval Certificate to another may be made only by the owner or with the owner's authorization. A tank car proposed for a commodity service other than specified on its certificate of construction or Design Approval Certificate must be approved for such service by a Design Certifying Engineer.

* * * * *

(d) *Pre-transportation closure, securement, and examination of tank cars.* Prior to transportation, each person who offers a tank car carrying hazardous material must ensure the tank

car is closed, secured, and inspected in accordance with this section.

(1) *Securement of closures on tank cars.* The offeror must have and follow a written procedure for closing and securing all openings on a tank car prior to shipment. The person responsible for developing or updating the procedure must consider available best practices and guidance from each packaging and component supplier, such as service equipment manufacturer, gasket manufacturer, tank car owner, or other product-specific closure manufacturer. The procedure must be periodically reviewed and updated to reflect changes or modifications that impact the securement of closures, but not later than every two years.

(2) *Pre-trip Inspection.* No person may offer for transportation a tank car containing a hazardous material or a residue of a hazardous material unless that person determines that the tank car is in proper condition and safe for transportation. As a minimum, each person offering a tank car for transportation must perform an external visual inspection that includes:

(i) Except where insulation or a thermal protection system precludes an inspection, the tank shell and heads for abrasion, corrosion, cracks, dents, distortions, defects in welds, or any other condition that makes the tank car unsafe for transportation;

(ii) The piping, valves, fittings, and gaskets for corrosion, damage, or any other condition that makes the tank car unsafe for transportation;

(iii) For missing or loose bolts, nuts, or elements that make the tank car unsafe for transportation;

(iv) All closures on tank cars and determine that the closures and all fastenings securing them are properly tightened in place by the use of a bar, wrench, or other suitable tool;

(v) Protective housings for proper securement;

(vi) The pressure relief device, including a careful inspection of the rupture disc in non-reclosing pressure relief devices, for corrosion or damage that may alter the intended operation of the device. The rupture disc is not required to be removed prior to visual inspection if the tank car contains the residue, as defined in § 171.8 of this subchapter, of a Class 8, PG II or PG III material with no subsidiary hazard or the residue of a Class 9 elevated temperature material;

(vii) Each tell-tale indicator after filling and prior to transportation to ensure the integrity of the rupture disc;

(viii) The external thermal protection system, tank-head puncture resistance system, coupler vertical restraint system, and bottom discontinuity protection for conditions that make the tank car unsafe for transportation;

(ix) The required markings on the tank car for legibility; and

(x) The periodic inspection date markings to ensure that the inspection and test intervals are within the prescribed intervals.

(3) *Design of Closures.* Closures on tank cars are required, in accordance with this subchapter, to be designed and closed so that under conditions normally incident to transportation, including the effects of temperature and vibration, there will be no identifiable release of a hazardous material to the environment. In any action brought to enforce this section, the lack of securement of any closure to a tool-tight condition, detected at any point, will establish a rebuttable presumption that a proper inspection was not performed by the offeror of the car. That presumption may be rebutted by any evidence indicating that the lack of securement resulted from a specific cause not within the control of the offeror.

* * * * *

(g) * * *

(1) Except as provided in (g)(1)(i), each hazmat employee who is responsible for loading or unloading a tank car must ensure the track is secure to prevent access by other rail equipment, including motorized service vehicles. The mechanism used to satisfy this requirement must be under direct control of the hazmat employee responsible for the loading or unloading operation and must be locked so that only the employee responsible for the product transfer operation may remove it. The means of protection under this section must be capable of stopping or diverting rail equipment to prevent contact with the tank car or equipment that is part of the transfer operation. This requirement must be satisfied by lining each switch providing access to the loading/unloading area away from the unloading operation and securing each switch with an effective locking device; using a derail when locked in a derailing position with an effective locking device on the track providing direct access to the tank car that is being loaded or unloaded; by using other means that provide an equivalent level of security; or, a combination of the above.

(i) Equipment may be used to reposition rolling equipment on this track after the protection has been removed under the following conditions:

(A) The equipment is operated by an authorized employee under the direction of the hazmat employee who is responsible for loading or unloading the tank car;

(B) The hazmat employee who is responsible for loading or unloading the tank car on the affected track has been notified;

(C) The rolling equipment must not couple into the tank car being loaded/unloaded; and

(D) The protection must be restored immediately after the repositioning has been completed.

(ii) [Reserved]

* * * * *

■ 30. In § 173.150, revise paragraph (f)(3)(viii) to read as follows:

§ 173.150 Exceptions for Class 3 (flammable and combustible liquids).

* * * * *

(f) * * *

(3) * * *

(viii) The requirements of §§ 173.1, 173.21, 173.24, 173.24a, 173.24b, 174.1, 177.804, 177.817, 177.834(j), 177.837(c) and 177.837(d) of this subchapter;

* * * * *

■ 31. In § 173.159, revise paragraphs (e)(2), (e)(4), and (e)(5), and add paragraph (e)(6) to read as follows:

§ 173.159 Batteries, wet.

* * * * *

(e) * * *

(2) The batteries must be loaded or braced so as to prevent damage and short circuits while in transit, in a manner that secures the batteries against shifting, including relative motion between packages, under conditions normally incident to transportation;

* * * * *

(4) Except for the purpose of consolidating shipments of batteries for recycling, the transport vehicle may not carry material shipped by any person other than the shipper of the batteries;

(5) The offeror must inform persons loading the batteries and the operator of the vehicle transporting batteries of the requirements of this paragraph; and

(6) Shipments made under this paragraph are subject to the incident reporting requirements in § 171.15.

* * * * *

■ 32. In § 173.241, revise paragraph (a) introductory text to read as follows:

§ 173.241 Bulk packagings for certain low hazard liquid and solid materials.

* * * * *

(a) *Rail cars:* Class DOT 103, 104, 105, 109, 111, 112, 114, 115, 117, or 120 tank car tanks; and Class 106 or 110 multi-unit tank car tanks. AAR Class 203W, 206W, and 211W tank car tanks are also authorized. AAR Class 203W, 206W, and 211W tank car tanks built after

[DATE ONE YEAR FROM EFFECTIVE DATE] must be as prescribed in AAR Specifications for Tank Cars Chapter 3 (IBR, see § 171.7 of this subchapter). Additional operational requirements apply to high-hazard flammable trains (see § 171.8 of this subchapter) as prescribed in § 174.310 of this subchapter. Except as otherwise provided in this section, DOT Specification 111 tank cars and DOT Specification 111 tank cars built to the CPC–1232 industry standard are no longer authorized to transport Class 3 (flammable) liquids in Packing Group III, unless retrofitted to the DOT Specification 117R retrofit standards or the DOT Specification 117P performance standards provided in part 179, subpart D of this subchapter.

* * * * *

■ 33. In § 173.242, revise paragraph (a) introductory text to read as follows:

§ 173.242 Bulk packagings for certain medium hazard liquids and solids, including solids with dual hazards.

* * * * *

(a) *Rail cars:* Class DOT 103, 104, 105, 109, 111, 112, 114, 115, 117, or 120 tank car tanks and Class 106 or 110 multi-unit tank car tanks. AAR Class 206W tank car tanks are also authorized. AAR Class 206W tank car tanks built after [DATE ONE YEAR FROM EFFECTIVE DATE] must be as prescribed in AAR Specifications for Tank Cars Chapter 3 (IBR, see § 171.7 of this subchapter). Additional operational requirements apply to high-hazard flammable trains (see § 171.8 of this subchapter) as prescribed in § 174.310 of this subchapter. Except as otherwise provided in this section, DOT Specification 111 tank cars and DOT Specification 111 tank cars built to the CPC–1232 industry standard are no longer authorized to transport unrefined petroleum products, ethanol, and other Class 3 (flammable) liquids in Packing Group II or III, unless retrofitted to the DOT Specification 117R retrofit standards, or the DOT Specification 117P performance standards provided in part 179, subpart D of this subchapter.

* * * * *

■ 34. In § 173.247, revise paragraph (a) introductory text to read as follows:

§ 173.247 Bulk packaging for certain elevated temperature materials.

* * * * *

(a) *Rail cars:* Class DOT 103, 104, 105, 109, 111, 112, 114, 115, or 120 tank car tanks; Class DOT 106, 110 multi-unit tank car tanks; AAR Class 203W, 206W, 211W tank car tanks; and non-DOT specification tank car tanks equivalent in structural design and accident damage resistance to specification packagings. AAR Class 203W, 206W, and 211W tank car tanks constructed after [DATE ONE YEAR FROM EFFECTIVE DATE] must be as prescribed in AAR Specifications for Tank Cars Chapter 3 (IBR, see § 171.7 of this subchapter).

* * * * *

§ 173.314 [Amended]

■ 35. In § 173.314, remove and reserve paragraph (b)(4).

■ 36. In § 173.315:

■ a. Revise the first sentence of paragraph (h) introductory text, paragraphs (i)(13), (j)(1) introductory text, (m)(1)(vi), (m)(1)(vii);

■ b. Add paragraph (m)(1)(viii); and

■ c. Revise the table in paragraph (n)(1).

The revisions and addition read as follows:

§ 173.315 Compressed gases in cargo tanks and portable tanks.

* * * * *

(h) Each cargo tank and portable tank, except a tank filled by weight (see paragraph (e) of this section), must be equipped with one or more of the gauging devices described in the following table which indicate accurately the maximum permitted liquid level (for purposes of the following table, a column entry with ''do'' indicates ''same as above''). * * *

* * * * *

(i) * * *

(13) A pressure relief device on a chlorine cargo tank must conform to one of the drawings in The Chlorine Institute, Inc. Pamphlet 49, ''Recommended Practices for Handling Chlorine Bulk Highway Transports'' (IBR, see § 171.7 of this subchapter).

(j) * * *

(1) Storage containers for liquefied petroleum gas charged to five percent of their capacity or less and intended for permanent installation on consumer premises may be shipped by private motor carrier under the following conditions:

* * * * *

(m) * * *

(1) * * *

(vi) Is securely mounted on a farm wagon or meets paragraph (m)(3) of this section;

(vii) Is in conformance with the requirements of part 172 of this subchapter except that shipping papers are not required; and it need not be marked or placarded on one end if that end contains valves, fittings, regulators, or gauges when those appurtenances prevent the markings and placard from being properly placed and visible; and

(viii) For tanks manufactured after [DATE 90 DAYS FROM EFFECTIVE DATE], the cargo tank must be subjected to full post weld heat treatment.

* * * * *

(n) * * *

(1) * * *

§ 173.315(n)(1)(*)	Hazardous material	Delivery service	Required emergency discharge control capability	Obstructed view deliveries under § 177.840(p) of this subchapter
*	*	*	*	*
(iii)	Anhydrous ammonia either Division 2.2 or 2.3.	Other than metered delivery service.	Paragraph (n)(2) of this section.	
	Anhydrous Ammonia, either Division 2.2 or 2.3.	Metered delivery service, 13,247 L (3,500 water gallons) or less.	Paragraph (n)(3) of this section.	
	Anhydrous Ammonia, either Division 2.2 or 2.3.	Metered delivery service, over 13,247 L (3,500 water gallons).	Paragraph (n)(3) of this section; and	Paragraph (n)(2) or (n)(4) of this section.
	Anhydrous Ammonia, either Division 2.2 or 2.3.	Both metered delivery service and other than metered delivery service, over 13,247 L (3,500 water gallons).	Paragraph (n)(2) of this section, provided the system operates for both metered and other than metered delivery service; or (n)(2) and (n)(3).	

§ 173.315(n)(1)(*)	Hazardous material	Delivery service	Required emergency discharge control capability	Obstructed view deliveries under § 177.840(p) of this subchapter
(iv)	Division 2.2 with a subsidiary hazard.	Other than metered delivery service.	Paragraph (n)(2) of this section.	
	Division 2.2 with a subsidiary hazard.	Metered delivery service, 13,247 L (3,500 water gallons) or less.	Paragraph (n)(3) of this section.	
	Division 2.2 with a subsidiary hazard.	Metered delivery service, over 13,247 L (3,500 water gallons).	Paragraph (n)(3) of this section; and	Paragraph (n)(2) or (n)(4) of this section.
(v)	Division 2.1	Other than metered delivery service.	Paragraph (n)(2) of this section.	
	Division 2.1	Metered delivery service, 13,247 L (3,500 water gallons) or less.	Paragraph (n)(3) of this section.	
	Division 2.1	Metered delivery service, over 13,247 L (3,500 water gallons).	Paragraph (n)(3) of this section;	Paragraph (n)(2) or (n)(4) of this section.

* * * * *

■ 37. In § 173.320, revise paragraphs (a) introductory text and (b) introductory text to read as follows:

§ 173.320 Cryogenic liquids; exceptions.

(a) Cryogenic liquids authorized to use this section by Column 8(A) of the § 172.101 Hazardous Materials Table of this subchapter, which are transported in Dewar flasks, insulated cylinders, insulated portable tanks, insulated cargo tank motor vehicles, and insulated tank cars that have been designed and constructed so that the pressure in such packagings will not exceed 25.3 psig under ambient temperature conditions during transportation, are not subject to the requirements of this subchapter when transported by motor vehicle or railcar except for:

* * * * *

(b) The requirements of this subchapter do not apply to cryogenic liquids authorized to use this section by Column 8(A) of the § 172.101 Hazardous Materials Table of this subchapter:

* * * * *

PART 174—CARRIAGE BY RAIL

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

Authority: 49 U.S.C. 5101–5128; 33 U.S.C. 1321; 49 CFR 1.81 and 1.97.

■ 39. In § 174.9, revise paragraph (a) and add paragraph (e) to read as follows:

§ 174.9 Safety and security inspection and acceptance.

(a) At each location where a hazardous material is accepted for transportation or placed in a train, the carrier must inspect each rail car containing the hazardous material, at ground level, for required markings, labels, placards, securement of closures, and leakage. These inspections may be performed in conjunction with inspections required under 49 CFR parts 215 and 232.

* * * * *

(e) In an action brought to enforce this section, a train found departing a location where the hazardous material is accepted for transportation or placed in a train with improper hazard communication, unapplied closures, or leaking hazardous material, which is readily apparent from the ground level, will establish a rebuttable presumption that a proper inspection was not performed by the carrier. The presumption may be rebutted by any evidence indicating that the improper hazard communication, unapplied closures, or leaking hazardous material resulted from a specific cause not identifiable by the carrier during the inspection.

■ 40. In § 174.14, revise paragraph (a) to read as follows:

§ 174.14 Movements to be expedited.

(a) A carrier must forward each shipment of hazardous materials promptly and within 48 hours (Saturdays, Sundays, and holidays excluded), after acceptance at the originating point or receipt at any yard or interchange point. Exceptions from the requirement to forward a shipment within 48 hours are as follows and the carrier must keep a record of the delay of a shipment in accordance with one of these exceptions:

(1) When only biweekly or weekly service is performed, a shipment of hazardous materials must be forwarded on the first available train;

(2) Where circumstances preclude delivery to the consignee destination listed on the shipping paper (*e.g.,* excessive railcar congestion on private track), railcars may be temporarily held until alternative disposition is obtained, or the circumstances precluding delivery are resolved; or

(3) Where the shipment contains only the residue of a hazardous material.

* * * * *

§§ 174.16 and 174.20 [Remove and Reserve]

■ 41. Remove and reserve §§ 174.16 and 174.20.

■ 42. In § 174.24, revise paragraph (b) to read as follows:

§ 174.24 Shipping papers.

* * * * *

(b) Each person receiving a shipping paper required by this section must retain a copy or an electronic image thereof, that is accessible at or through its principal place of business and must make the shipping paper available, upon request, to an authorized official of a Federal, State, or local government agency at reasonable times and locations. In non-emergency circumstances, the shipping paper must be made available no later than close of business the following business day from the time of the request. For a hazardous waste, each shipping paper copy must be retained for three years after the material is accepted by the initial carrier. For all other hazardous materials, each shipping paper copy must be retained for one year after the material is accepted by the initial carrier. Each shipping paper copy must include the date of acceptance by the initial carrier. The date on the shipping paper may be the date a shipper notifies the rail carrier that a shipment is ready for transportation, as indicated on the waybill or bill of lading, as an alternative to the date the shipment is picked up, or accepted, by the carrier.

■ 43. Revise § 174.50 to read as follows:

§ 174.50 Nonconforming or leaking packages.

(a) *Applicability.* (1) Except as otherwise provided in paragraph (b) of this section, a rail car in hazardous material service that is not able to retain its contents in accordance with § 173.24 of this subchapter or a DOT specification tank car that does not conform to this subchapter may not be moved in transportation unless approved for movement by the Associate Administrator for Safety, Federal Railroad Administration.

(2) A leaking non-bulk package may not be forwarded until repaired, reconditioned, or overpacked in accordance with § 173.3 of this subchapter.

(b) *Exceptions.* (1) A leaking bulk package containing hazardous material may be moved without repair or approval only so far as necessary to reduce or eliminate an immediate threat of harm to human health or the environment when it is determined its movement would provide greater safety than allowing the bulk package to remain in place. In the case of a liquid leak, the company in possession of the bulk package must take measures to prevent the spread of the liquid.

(2) A non-conforming rail car that does not contain any hazardous material may be moved without repair or approval, provided the non-conforming condition does not affect the structural integrity of the rail car.

(3) A rail car containing a hazardous material that is found during the course of transportation to be overloaded by weight by 3,000 pounds or less of the maximum gross weight on rail (MGWR) when weighed on a weigh-in-motion scale, or a rail car containing a hazardous material that is found to be overloaded by weight by 1,000 pounds or less of the rail car's MGWR when weighed on a static scale. These tolerances apply to a rail car that the railroad operator discovers to be loaded above the rail car's MGWR during the course of transportation. This does not authorize the original offeror to knowingly offer a rail car for transportation when the pre-transportation calculations or scale weight exceed the MGWR of the rail car.

(4) For cross-border movements to or from Canada, a rail car in hazardous material service that is not able to retain its contents in accordance with § 173.24 of this subchapter or a DOT specification tank car moved in accordance with the TDG Regulations (see § 171.12), or a Temporary Certificate issued by the Competent Authority of Canada, as applicable.

(c) *Approval Process.* To apply for a One-Time Movement Approval, follow the guidance in FRA's guide for requesting a One-Time Movement Approval (HMG–127) and the requirements set forth in this section, as applicable.

(d) *General One-Time Movement Approval Requirements.* These general requirements apply to the grantee of an approval for a non-conforming rail car for transportation under the terms of a One-Time Movement Approval issued by FRA in accordance with this section.

(1) *Marking.* Prior to moving a non-conforming rail car, regardless of the lading, the rail car must have the following or similar wording applied to both sides of the rail car in a stencil, decal, or tag that is readily visible. This requirement does not apply to tank cars moved under a One-Time Movement Approval issued for rail cars that are overloaded by weight. The stencil, decal, or tag required by this paragraph must not be removed until appropriate repairs are made to the rail car. Rail cars with defective service equipment must also tag the specific equipment (*e.g.,* valve or fitting) with the following wording or alternative wording that conveys a similar message.

HOME SHOP FOR REPAIRS
DO NOT LOAD
or
MOVING FOR
DISMANTLING
DO NOT LOAD

(2) *Notification.* Each approval grantee must:

(i) Notify the owner of the rail car that it is being moved under the terms of a One-Time Movement Approval;

(ii) Ensure the consignee or final destination facility has been notified and will accept the non-conforming rail car and be willing and capable of unloading the lading, if necessary, to perform the required maintenance. For tank cars, a tank car facility, either fixed or mobile, must perform the required maintenance at the destination indicated in the application;

(iii) Ensure that the cleaning facility is capable of cleaning the rail car if the non-conforming rail car contains a hazardous material and requires movement to a cleaning facility prior to movement for repair;

(iv) Ensure that each rail carrier that will handle the defective rail car in transportation has been notified and will accept the non-conforming rail car for transportation; and

(v) Ensure that shipping documentation transmitted to the initial rail carrier involved in the movement of the non-conforming shipment identifies that the rail car is moving under a One-Time Movement Approval.

(3) *Recordkeeping.* The approval grantee is required to maintain a copy or an electronic image of the One-Time Movement Approval and must make the information available upon request to FRA personnel. The One-Time Movement Approval must be retained for one year from the date of issuance of the approval.

(4) *Routing.* The approval grantee and the rail carrier(s) involved in the movement of the non-conforming rail car must consider the nature of the non-conformance and select the most appropriate route to the nearest cleaning facility and rail car repair facility capable of performing the required cleaning and/or repairs.

(5) *Root Cause Analysis.* A recommended format for a root cause analysis report is provided as an Appendix in the FRA guidance on applying for a One-Time Movement Approval.

(i) If FRA requires a root cause analysis for a non-conforming rail car, the grantee is responsible for notifying the rail car owner of the requirement and coordinating with the rail car owner to determine disposition of the rail car.

(ii) If FRA requires a root cause analysis for an overloaded rail car, the grantee is responsible for notifying the facility that loaded and offered the rail car of the requirement to provide FRA with a root cause analysis.

(e) *Compliance Responsibility.* (1) The person who offers the rail car into transportation and the grantee of the One-Time Movement Approval are responsible for ensuring compliance with all applicable requirements specified in this section and the One-Time Movement Approval.

(2) FRA may issue written notification to any entity found to be non-compliant with the requirements of this section or the conditions of the One-Time Movement Approval. This written notification may require the entity to submit all future One-Time Movement Approval requests as a Category 1 One-Time Movement Approval regardless of the identified non-conforming condition with the rail car. This limitation will apply to the particular entity until otherwise notified in writing by the FRA.

■ 44. Add § 174.58 to read as follows:

§ 174.58 Residue shipment.

As referenced in the § 171.8 definition of *residue,* the phrase ''extent practicable'' means an unloading facility has unloaded a bulk package using

properly functioning service equipment and plant process equipment.

■ 45. Revise § 174.59 to read as follows:

§ 174.59 Marking and placarding of rail cars.

No person may transport a rail car carrying hazardous materials unless it is marked and placarded as required by this subchapter. Required placards lost in transit must be replaced at the nearest inspection point in the direction of travel where mechanical personnel responsible for inspections related to 49 CFR parts 215 and 232 are on duty, and non-compliant placards must be removed at the next terminal in the direction of travel where the train is classified. For Canadian shipments, required placards lost in transit must be replaced either by those required by part 172 of this subchapter or by those authorized under § 171.12.

■ 46. In § 174.63, revise the section heading, and paragraphs (b), (c)(1), and (c)(2) to read as follows:

§ 174.63 Requirements for rail transport of Portable tanks, IM portable tanks, IBCs, Large Packagings, cargo tanks, and multi-unit tank car tanks in TOFC/COFC Service.

* * * * *

(b) A bulk packaging containing a hazardous material (including IM 101 and IM 102 portable tanks when appropriate according to dimensions and weight distribution) may be transported inside a fully closed transport vehicle or fully closed freight container provided it is properly secured with a restraint system that will prevent it from changing position, sliding into other packages, or contacting the side or end walls (including doors) under conditions normally incident to transportation.

(c) * * *

(1)(i) The bulk packaging contains a material packaged in accordance with §§ 173.240, 173.241, 173.242, 173.243, or 173.247; or

(ii) The bulk packaging contains a Division 2.2 material not specifically provided for in the § 173.315(a)(2) table and packaged in accordance with § 173.315;

(2) The bulk packaging must comply with the applicable requirements of the HMR concerning its specification, if applicable for the material it contains, and the rail car must comply with the applicable regulatory requirements for the type of rail car being used.

* * * * *

■ 47. Revise § 174.67 to read as follows:

§ 174.67 Tank car transloading.

(a) *General requirements.* (1) Transloading operations must be performed by hazmat employees who are properly trained in the loading and unloading of hazardous materials and are made responsible for compliance with this section and §§ 173.31(d) and (g) of this subchapter.

(2) When placed for transloading and before unsecuring any closure, a tank car must be protected against motion or coupling in accordance with § 173.31(g).

(3) [Reserved]

(4) [Reserved]

(5) The transloading facility operator must maintain and adhere to written safety procedures—such as those it may already be required to maintain pursuant to the Department of Labor's Occupational Safety and Health Administration requirements in 29 CFR 1910.119 and 1910.120—in a location where they are immediately available to hazmat employees responsible for the transloading operation. The procedures must include measures to address the safe handling and operation of the tank car and tank car service equipment, as well as account for physical and chemical properties of the lading being transloaded. At a minimum, the transloading procedures required by this paragraph must include provisions that address the following:

(i) Temperature monitoring and pressure relief;

(ii) Safe operation of the tank car for product loading or unloading;

(iii) Proper disposal of used seals and other debris;

(iv) Measures to avoid spillage of contents outside the tank;

(v) Operation of tank car service equipment;

(vi) Proper removal of product plugs that prevent adequate operation of the valves and equipment; and

(vii) Proper tool maintenance measures including the types of tools to use, calibration, cleanliness, and instructions on use.

(6) [Reserved]

(b) [Reserved]

(c) [Reserved]

(d) [Reserved]

(e) [Reserved]

(f) [Reserved]

(g) [Reserved]

(h) Connections for transloading equipment must be securely attached before any valves are opened.

(i) Throughout the entire period of transloading and while a tank car has transloading equipment attached, the facility operator must assure that the tank car is:

(1) Attended by a designated hazmat employee who is physically present and who has an unobstructed view of the transloading operation; or

(2) Monitored by a signaling system (*e.g.,* video system, sensing equipment, or mechanical equipment) that is observed by a designated hazmat employee located either in the immediate area of the tank car or at a remote location within the facility, such as a control room. The signaling system must—

(i) Provide a level of surveillance equivalent to that provided in paragraph (i)(1) of this section; and

(ii) Provide immediate notification to a designated hazmat employee of any system malfunction or other emergency so that, if warranted, responsive actions may be initiated immediately.

(j) Attendance is not required when piping is attached to a top outlet of a tank car, equipped with a protective housing required under § 179.100–12 of this subchapter, for transfer of lading under the following conditions:

(1) All valves are tightly closed.

(2) The piping is not connected to hose or other product transfer equipment and is fitted with a cap or plug of appropriate material and construction.

(3) The piping extends no more than 15.24 centimeters (6 inches) from the outer edge of the protective housing.

(k) In the absence of the transloader, a tank car may stand with transloading connections attached when no product is being transferred under the following conditions:

(1) The facility operator must designate a hazmat employee responsible for on-site monitoring of the transfer facility. The designated hazmat employee must be made familiar with the nature and properties of the product contained in the tank car; procedures to be followed in the event of an emergency; and, in the event of an emergency, have the ability and authority to take responsible actions.

(2) When a signaling system is used in accordance with paragraph (i) of this section, the system must be capable of alerting the designated hazmat employee in the event of an emergency and providing immediate notification of any monitoring system malfunction. If the monitoring system does not have self-monitoring capability, the designated hazmat employee must check the monitoring system hourly for proper operation.

(3) The tank car and facility shutoff valves must be secured in the closed position.

(4) Brakes must be set, and wheels locked, in accordance with § 173.31(g) of this subchapter.

(5) Access to the track must be secured in accordance with § 173.31(g) of this subchapter.

(l) Once the transloading operation is complete, all tank car valves and

closures must be secured in accordance with § 173.31(d) of this subchapter. The tank car then must be inspected by a designated hazmat employee in accordance with § 173.31(d) of this subchapter before it is released to the rail carrier for continued movement.

(m) Railroad defect cards may not be removed.

(n) [Reserved]

(o) [Reserved]

■ 48. In § 174.81, revise paragraph (g)(3)(iv) to read as follows:

§ 174.81 Segregation of hazardous materials.

* * * * *

(g) * * *

(3) * * *

(iv) ''4'' means detonators, detonating assemblies, and boosters with detonators may not be loaded in the same car with Division 1.1 and 1.2 (explosive) materials (except other detonators, detonating assemblies, and boosters with detonators).

* * * * *

PART 176—CARRIAGE BY VESSEL

■ 49. The authority citation for part 176 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

■ 50. In § 176.2, revise the definition for ''Commandant'' to read as follows:

§ 176.2 Definitions.

* * * * *

Commandant (CG–ENG), USCG means the Chief, Office of Design and Engineering Standards, United States Coast Guard, Washington, DC 20593–7509.

* * * * *

■ 51. In § 176.84, revise paragraph (a) to read as follows:

§ 176.84 Other requirements for stowage, cargo handling, and segregation for cargo vessels and passenger vessels.

(a) *General.* When Column 10B of the § 172.101 Table refers to a numbered or alpha-numeric stowage provision for water shipments, the meaning and requirements of that provision are set forth in this section. Terms in quotation marks are defined in § 176.83. Other terms used in the table in this section—such as ''acids,'' ''chlorates,'' and ''permanganates''—indicate different chemical groups referred to here as segregation groups. Materials falling within a segregation group are considered to have certain similar chemical properties and, although not exhaustive in nature, the materials belonging to each group include those substances identified in section 3.1.4 of the IMDG Code (IBR, see § 171.7 of this subchapter), as set forth in § 176.83(m). Hazardous materials offered for transportation as limited quantities are not subject to the stowage codes assigned by Column 10B of the § 172.101 Table (see § 172.101(k)).

* * * * *

■ 52. In § 176.340, revise paragraph (c) to read as follows:

§ 176.340 Combustible liquids in portable tanks.

* * * * *

(c) Portable tanks approved by the Commandant (CG–ENG), USCG.

■ 53. In § 176.905, add paragraph (i)(7) to read as follows:

§ 176.905 Stowage of vehicles.

* * * * *

(i) * * *

(7) The vehicle is stored incident to movement on shore within a single port area, including contiguous harbors.

* * * * *

PART 177—CARRIAGE BY PUBLIC HIGHWAY

■ 54. The authority citation for part 177 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; sec. 112 of Pub. L. 103–311, 108 Stat. 1673, 1676 (1994); sec. 32509 of Pub. L. 112–141, 126 Stat. 405, 805 (2012); 49 CFR 1.81 and 1.97.

■ 55. Revise § 177.801 to read as follows:

§ 177.801 Unacceptable hazardous materials shipments.

(a) No person may accept for transportation or transport by motor vehicle a forbidden material (see § 173.21).

(b) No person may accept for transportation or transport a hazardous material that is not classified, packaged, marked, labeled, or placarded, as applicable, in accordance with the requirements of this subchapter or by special permit.

■ 56. In § 177.804, revise paragraph (a) to read as follows:

§ 177.804 Compliance with Federal Motor Carrier Safety Regulations.

(a) *General.* Motor carriers and other persons subject to this part must comply with 49 CFR part 383 and 49 CFR parts 390 through 397 (excluding §§ 397.3 and 397.9) when operating vehicles subject to those regulations.

* * * * *

■ 57. In § 177.816, revise paragraphs (c) and (d) to read as follows:

§ 177.816 Driver Training.

* * * * *

(c) The training required by paragraphs (a) and (b) of this section may be satisfied by compliance with the current requirements for a Commercial Driver's License (CDL) with a tank vehicle or hazardous materials endorsement if it appropriately covers the requirements in paragraph (a) and (b) of this section.

(d) Training required by paragraphs (a) and (b) of this section must conform to the requirements of § 172.704(c) and (d) of this subchapter with respect to frequency and recordkeeping.

■ 58. In § 177.835, revise paragraph (d) to read as follows:

§ 177.835 Class 1 (explosive) materials.

* * * * *

(d) *Multipurpose bulk trucks.* When § 172.101 of this subchapter specifies that Class 1 (explosive) materials may be transported in accordance with § 173.66 of this subchapter (per special provision 148 in § 172.102(c)(1)), these materials may be transported on the same vehicle with Division 5.1 (oxidizing) materials, or Class 8 (corrosive) materials, and/or Combustible Liquid, n.o.s., NA1993, only under the conditions and requirements set forth in IME Standard 23 (IBR, see § 171.7 of this subchapter) and paragraph (g) of this section. A multipurpose bulk truck may not be transported with any cargo tank that is required to be marked or placarded under § 177.823. In addition, the segregation requirements in § 177.848 do not apply.

* * * * *

■ 59. In § 177.837, revise paragraph (c) introductory text to read as follows:

§ 177.837 Class 3 (flammable liquid) materials.

* * * * *

(c) *Bonding and grounding cargo tanks before and during transfer of lading.* A cargo tank motor vehicle that is preparing to transfer or is transferring any flammable liquid, combustible liquid, or a flammable liquid reclassified as a combustible liquid must be bonded and grounded as follows:

* * * * *

■ 60. In § 177.840, revise paragraphs (n), (r)(2), and (t) to read as follows:

§ 177.840 Class 2 (gases) materials.

* * * * *

(n) *Emergency shut down.* If there is an unintentional release of product to the environment during unloading of a liquefied compressed gas, the qualified person unloading the cargo tank motor vehicle must promptly shut the internal or external self-closing stop valve or other primary means of closure, and

shut down all motive and auxiliary power equipment.

* * * * *

(r) * * *

(2) The qualified person monitoring unloading must remain within arm's reach of the mechanical means of closure for the internal or external self-closing stop valve when the self-closing stop valve is open except for short periods when it is necessary to activate controls or monitor the receiving container. For chlorine cargo tank motor vehicles, the qualified person must remain within arm's reach of a means to stop the flow of product except for short periods when it is necessary to activate controls or monitor the receiving container.

* * * * *

(t) *Unloading without appropriate emergency discharge control equipment.* Until a cargo tank motor vehicle is equipped with emergency discharge control equipment in conformance with §§ 173.315(n)(2) and 180.405(m)(1) of this subchapter, the qualified person attending the unloading operation must remain within arm's reach of a means to close the internal or external self-closing stop valve when the self-closing stop valve is open except during short periods when the qualified person must activate controls or monitor the receiving container. For chlorine cargo tank motor vehicles, the qualified person must remain within arm's reach of a means to stop the flow of product except for short periods when it is necessary to activate controls or monitor the receiving container.

* * * * *

■ 61. In § 177.841, revise paragraphs (e)(1) introductory text and (e)(2) to read as follows:

§ 177.841 Division 6.1 (poisonous) materials and Division 2.3 (poisonous gas) materials.

* * * * *

(e) * * *

(1) Except as provided in paragraph (e)(3) of this section, bearing or required to bear a POISON, POISON GAS, or POISON INHALATION HAZARD label or placard in the same motor vehicle with material that is marked as or known to be foodstuffs, feed, or edible material intended for consumption by humans or animals unless the poisonous material is packaged in accordance with this subchapter and is:

* * * * *

(2) Bearing or required to bear a POISON, POISON GAS, or POISON INHALATION HAZARD label in the driver's compartment (including a sleeper berth) of a motor vehicle, including enclosed van trucks with no permanent barrier separating the driver from the cargo compartment; or

* * * * *

PART 178—SPECIFICATIONS FOR PACKAGINGS

■ 62. The authority citation for part 178 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

■ 63. In § 178.320, paragraph (a);
■ a. Revise definitions of ''cargo tank'', ''cargo tank motor vehicle'', and ''minimum thickness''; and
■ b. In alphabetical order, add definitions for ''cargo tank motor vehicle certification date'', ''component'', ''flexible connector'', ''lading retention system'', ''lining'', ''name plate'', ''original test date'', ''sacrificial device'', ''shear section'', and ''specification plate''.

The revisions and additions read as follows:

§ 178.320 General requirements applicable to all DOT Specification cargo tank motor vehicles.

(a) * * *

* * * * *

Cargo tank: See § 171.8 of this subchapter for the definition.

Cargo tank motor vehicle: See § 171.8 of this subchapter for the definition.

* * * * *

Cargo tank motor vehicle certification date means the date stamped on the cargo tank motor vehicle specification plate, and represents the date the cargo tank motor vehicle manufacturer certifies that the cargo tank motor vehicle conforms in all respects with the specification requirements (including, but not limited to: rear-end protection devices, overturn protection devices, all other accident damage protection, and attachment to the vehicle), and the ASME Code, if applicable.

* * * * *

Component means any attachment to the cargo tank or cargo tank motor vehicle, including valves, piping, fittings, and hoses, that contain lading during loading, unloading, or transportation, or are required to be pressure- or leak-tested in accordance with the requirements of part 180 of this subchapter.

* * * * *

Flexible connector means a short component of a piping system, not exceeding 36 inches (.91 m) overall length, fabricated of flexible material, and equipped with suitable connections on both ends. Liquefied petroleum gas resistant rubber and fabric or metal, or a combination thereof, or all metal may be used.

* * * * *

Lading retention system means the cargo tank wall and any associated components or equipment that, if damaged, could result in the release of the contents of the package.

Lining means an internal layer of different material covering the inside surface of the cargo tank.

* * * * *

Minimum thickness means the minimum required shell and head (and baffle and bulkhead when used as tank reinforcement) thickness needed to meet the specification. The minimum thickness is the greatest of the following values: (1)(i) For MC 330, MC 331, and MC 338 cargo tanks, the specified minimum thickness found in the applicable specification(s); or

(ii) For DOT 406, DOT 407 and DOT 412 cargo tanks, the specified minimum thickness found in Tables I and II of the applicable specification(s); or

(iii) For MC 300, MC 301, MC 302, MC 303, MC 304, MC 305, MC 306, MC 307, MC 310, MC 311, and MC 312 cargo tanks, the in-service minimum thickness prescribed in Tables I and II of § 180.407(i)(5) of this subchapter, for the minimum thickness specified by Tables I and II of the applicable specification(s); or

(2) The thickness necessary to meet with the structural integrity and accident damage requirements of the applicable specification(s); or

(3) The thickness as computed per the ASME Code requirements (if applicable).

* * * * *

Name plate means a data plate permanently attached to the cargo tank by the cargo tank manufacturer for the purpose of displaying the minimum information required by the ASME Code prescribed in §§ 178.337–17(b), 178.338–18(b), or 178.345–14(b) of this part, as appropriate.

* * * * *

Original test date means the date when the cargo tank manufacturer performed the pressure test, as required in part 178 of this subchapter, to verify the structural integrity of the cargo tank in accordance with the requirements for new construction prescribed in this part.

* * * * *

Sacrificial device means an element, such as a shear section, designed to fail under a load in order to prevent damage to any lading retention part or device. The device must break under strain at no more than 70 percent of the strength of the weakest piping element between

the cargo tank and the sacrificial device. Operation of the sacrificial device must leave the remaining piping and its attachment to the cargo tank intact and capable of retaining lading.

* * * * *

Shear section means a sacrificial device fabricated in such a manner as to abruptly reduce the wall thickness of the adjacent piping or valve material by at least 30 percent.

* * * * *

Specification plate means a data plate containing the applicable markings prescribed in §§ 178.337–17(c), 178.338–18(c), or 178.345–14(c) of this part, as appropriate, and permanently attached to the cargo tank or the cargo tank motor vehicle chassis by the manufacturer. The markings on this plate are certification by the manufacturer that the cargo tank or the cargo tank motor vehicle conforms in all respects with the specification requirements of this subchapter.

* * * * *

■ 64. In § 178.337–1:

■ a. Revise paragraph (d); and

■ b. Remove the definition of ''internal self-closing stop valve'' in paragraph (g).

The revision reads as follows:

§ 178.337–1 General Requirements.

* * * * *

(d) *Reflective design.* Every uninsulated cargo tank permanently attached to a cargo tank motor vehicle shall, unless covered with a jacket made of aluminum, stainless steel, or other bright non-tarnishing metal, be white, aluminum, or a similar reflecting color on the upper two-thirds of area of the cargo tank.

* * * * *

■ 65. In § 178.337–2, revise paragraph (b)(2)(i) to read as follows:

§ 178.337–2 Material.

* * * * *

(b) * * *

(2) * * *

(i) Material shall conform to ASTM A 612 or ASTM A 516/A 516M (IBR, see § 171.7 of this subchapter), Grade 65 or 70;

* * * * *

■ 66. In § 178.337–3, revise paragraphs (g)(3) introductory text and (g)(3)(iii) to read as follows:

§ 178.337–3 Structural integrity.

* * * * *

(g) * * *

(3) Except as prescribed in paragraphs (g)(1) and (g)(2) of this section, the welding of any appurtenance to the cargo tank wall, internal or external, must be made by attachment of a mounting pad so that there will be no adverse effect upon the lading retention integrity of the cargo tank if any force less than that prescribed in paragraph (b)(1) of this section is applied from any direction. The thickness of the mounting pad may not be less than that of the shell wall or head wall to which it is attached, and not more than 1.5 times the shell or head thickness. However, a pad with a minimum thickness of 0.25 inch may be used when the shell or head thickness is over 0.25 inch. If weep holes or tell-tale holes are used, the pad must be drilled or punched at the lowest point before it is welded to the tank. Each pad must—

* * * * *

(iii) Extend at least two inches in each direction from any point of attachment of an appurtenance.

* * * * *

■ 67. In § 178.337–8, add paragraph (a)(4)(vii) to read as follows:

§ 178.337–8 Openings, inlets, and outlets.

(a) * * *

(4) * * *

(vii) Mechanical means of remote closure for manual operation must not be obstructed by equipment or appurtenances in a manner that prevents access to or operation of the remote means in an emergency.

* * * * *

■ 68. In § 178.337–9:

■ a. Revise paragraphs (a)(3), (b) introductory text, (b)(1), and (b)(6);

■ b. Remove and reserve paragraph (b)(7); and

■ c. Add paragraph (e).

The revisions and addition read as follows:

§ 178.337–9 Pressure relief devices, piping, valves, hoses, and fittings.

(a) * * *

(3) Each pressure relief device must be designed, constructed, and marked for a rated pressure not less than the cargo tank design pressure at the temperature expected to be encountered.

(b) *Components and other pressure parts.* The cargo tank motor vehicle manufacturer must ensure that all components meet the following requirements:

(1) The burst pressure of all piping, pipe fittings, hose, and other pressure parts, except for pump seals and pressure relief devices, must be at least four times the MAWP of the cargo tank. Additionally, the burst pressure may not be less than four times any higher pressure to which each pipe, pipe fitting, hose, or other pressure part may be subjected to in service. For chlorine service, see paragraph (b)(8) of this section.

* * * * *

(6) Cargo tank motor vehicle manufacturers must demonstrate that all piping, valves, and fittings on a cargo tank are free from leaks. To meet this requirement, the piping, valves, and fittings must be tested after installation at not less than 80 percent of the MAWP marked on the name plate after the piping is installed on the cargo tank motor vehicle.

(7) [Reserved].

* * * * *

(e) *Hose assembler requirements.* A hose assembler must:

(1) Permanently mark each hose assembly with a unique identification number.

(2) Demonstrate that each hose assembly is free from leaks by performing the tests and inspections and issuing a written report as required by § 180.416(f) of this subchapter.

(3) Mark each hose assembly with the month and year of its original pressure test.

■ 69. In § 178.337–10, revise paragraph (c)(1) to read as follows:

§ 178.337–10 Accident damage protection.

* * * * *

(c) * * *

(1) Consist of at least one rear bumper designed to protect the cargo tank and all components located at the rear of the cargo tank from damage that could result in loss of lading in the event of a rear-end collision. The bumper design must transmit the force of the collision directly to the chassis of the vehicle. The rear bumper and its attachments to the chassis must be designed to withstand a load equal to twice the weight of the loaded cargo tank motor vehicle and attachments, using a safety factor of four based on the tensile strength of the materials used, with such load being applied horizontally and parallel to the major axis of the cargo tank. The rear bumper dimensions must also meet the requirements of § 393.86 of this title. The exception in § 393.86 for wheels back vehicles does not apply; or

* * * * *

■ 70. In § 178.337–17, revise paragraphs (a) introductory text and (a)(4) to read as follows:

§ 178.337–17 Marking.

(a) *General.* The manufacturer shall permanently attach to each cargo tank a corrosion-resistant metal name plate (ASME Plate), if applicable, and a specification plate permanently attached by brazing, welding, or other

suitable means on the left side of the vehicle near the front, in a place accessible for inspection. If the specification plate is attached directly to the cargo tank wall by welding, it must be welded to the tank before the cargo tank is postweld heat treated.

* * * * *

(4) The specification plate must be permanently attached to the cargo tank or its integral supporting structure by brazing, welding, or other suitable means on the left side of the vehicle near the front head, in a place accessible for inspection. If the specification plate is attached to an integral supporting structure, then the cargo tank serial number assigned by the cargo tank manufacturer must be included on the plate.

* * * * *

■ 71. Revise § 178.337–18, revise paragraphs (a) introductory text, (a)(1), (a)(3), and (a)(4) to read as follows:

§ 178.337–18 Certification.

(a) At or before the time of delivery, the cargo tank motor vehicle manufacturer must supply and the owner must obtain, a cargo tank's ASME Form U–1A data report as required by Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter), and a Certificate of Compliance stating that the completed cargo tank motor vehicle conforms in all respects to Specification MC 331 and the ASME Code. The registration numbers of the manufacturer, the Design Certifying Engineer, and the Registered Inspector, as appropriate, must appear on the Certificates of Compliance (see subpart F, part 107 in subchapter A of this chapter).

(1) For each design type, the Certificate of Compliance must be signed by an official of the manufacturer responsible for compliance and a Design Certifying Engineer; and

* * * * *

(3) When a cargo tank motor vehicle is manufactured in two or more stages, each manufacturer who performs a manufacturing operation on the incomplete cargo tank motor vehicle or portion thereof must provide to the succeeding manufacturer, at or before the time of delivery, a certificate that states the function performed by the manufacturer, including any certificates received from previous manufacturers, Registered Inspectors, and Design Certifying Engineers. When the cargo tank motor vehicle is brought into full compliance with the applicable DOT specification and the ASME Code, the final manufacturer must mark the specification plate with the cargo tank motor vehicle certification date and attach the specification plate to the completed cargo tank motor vehicle in accordance with § 178.337–17(a) of this part.

(4) *Specification shortages.* When a cargo tank motor vehicle is manufactured in two or more stages, the manufacturer of the cargo tank must attach the name plate and specification plate as required by § 178.337–17(a) and (b) without the original date of certification stamped on the specification plate. Prior manufacturers must list the specification requirements that are not completed on the Certificate of Compliance. When the cargo tank motor vehicle is brought into full compliance with the applicable specification, the Registered Inspector shall stamp the date of certification on the specification plate and issue a Certificate of Compliance to the owner of the cargo tank motor vehicle. The Certificate of Compliance must list the actions taken to bring the cargo tank motor vehicle into full compliance. In addition, the certificate must include the date of certification and the person (manufacturer, carrier or repair organization) accomplishing compliance.

* * * * *

■ 72. In § 178.338–3, revise paragraphs (g)(3) introductory text and (g)(3)(iii) to read as follows:

§ 178.338–3 Structural integrity.

* * * * *

(g) * * *

(3) Except as prescribed in paragraphs (g)(1) and (g)(2) of this section, the welding of any appurtenance to the cargo tank wall, internal or external, must be made by attachment of a mounting pad so that there will be no adverse effect upon the lading retention integrity of the cargo tank if any force less than that prescribed in paragraph (b)(1) of this section is applied from any direction. The thickness of the mounting pad may not be less than that of the shell wall or head wall to which it is attached, and not more than 1.5 times the shell or head thickness. However, a pad with a minimum thickness of 0.187 inch may be used when the shell or head thickness is over 0.187 inch. If weep holes or tell-tale holes are used, the pad must be drilled or punched at the lowest point before it is welded to the tank. Each pad must:

* * * * *

(iii) Extend at least two inches in each direction from any point of attachment of an appurtenance.

* * * * *

■ 73. In § 178.338–10, revise paragraph (c)(1) to read as follows:

§ 178.338–10 Accident damage protection.

* * * * *

(c) * * *

(1) Consist of at least one rear bumper designed to protect the cargo tank and all components located at the rear of the cargo tank from damage that could result in loss of lading in the event of a rear-end collision. The bumper design must transmit the force of the collision directly to the chassis of the vehicle. The rear bumper and its attachments to the chassis must be designed to withstand a load equal to twice the weight of the loaded cargo tank motor vehicle and attachments, using a safety factor of four based on the tensile strength of the materials used, with such load being applied horizontally and parallel to the major axis of the cargo tank. The rear bumper dimensions must also meet the requirements of § 393.86 of this title. The exception in § 393.86 for wheels back vehicles does not apply; or

* * * * *

■ 74. In § 178.338–11, add paragraph (c)(2)(iii) to read as follows:

§ 178.338–11 Discharge control devices.

* * * * *

(c) * * *

(2) * * *

(iii) Mechanical means of remote closure for manual operation must not be obstructed by equipment or appurtenances in a manner that prevents access to or operation of the remote means in an emergency.

■ 75. In § 178.338–18, revise paragraphs (a) introductory text and (a)(4) to read as follows:

§ 178.338–18 Marking.

(a) *General.* The manufacturer shall permanently attach to each cargo tank a corrosion-resistant metal name plate (ASME Plate), if applicable, and a specification plate permanently attached by brazing, welding, or other suitable means on the left side of the vehicle near the front, in a place accessible for inspection. If the specification plate is attached directly to the cargo tank wall by welding, it must be welded to the tank before the cargo tank is postweld heat treated.

* * * * *

(4) The specification plate must be permanently attached to the cargo tank or its integral supporting structure, by brazing, welding, or other suitable means on the left side of the vehicle near the front head, in a place accessible for inspection. If the specification plate

is attached to an integral supporting structure, then the cargo tank serial number assigned by the cargo tank manufacturer must be included on the plate.

* * * * *

■ 76. Revise § 178.338–19 to read as follows:

§ 178.338–19 Certification.

(a) At or before the time of delivery, the cargo tank motor vehicle manufacturer must supply and the owner must obtain, a cargo tank's ASME Form U–1A data report as required by Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter), and a Certificate of Compliance stating that the completed cargo tank motor vehicle conforms in all respects to Specification MC 338 and the ASME Code. The registration numbers of the manufacturer, the Design Certifying Engineer, and the Registered Inspector, as appropriate, must appear on the Certificates of Compliance (see subpart F, part 107 in subchapter B of this chapter).

(1) For each design type, the Certificate of Compliance must be signed by an official of the manufacturer responsible for compliance and a Design Certifying Engineer; and

(2) A photograph, pencil rub, or other facsimile of the plates required by paragraphs (a) and (b) of § 178.338–18.

(3) When a cargo tank motor vehicle is manufactured in two or more stages, each manufacturer who performs a manufacturing operation on the incomplete cargo tank motor vehicle or portion thereof must provide to the succeeding manufacturer, at or before the time of delivery, a certificate that states the function performed by that manufacturer, including any certificates received from previous manufacturers, Registered Inspectors, and Design Certifying Engineers. When the cargo tank motor vehicle is brought into full compliance with the applicable DOT specification and the ASME Code, the final manufacturer must mark the specification plate with the cargo tank motor vehicle certification date and attach the specification plate to the completed cargo tank motor vehicle in accordance with § 178.338–18(a) of this part.

(b) The owner shall retain the data report, certificates, and related papers throughout his ownership of the cargo tank motor vehicle and for at least one year thereafter; and in the event of change of ownership, retention by the prior owner of non-fading photographically reproduced copies will be deemed to satisfy this requirement. Each motor carrier using the cargo tank motor vehicle, if not the owner thereof, shall obtain a copy of the data report and the Certificate(s) of Compliance, and retain them during the time the carrier uses the cargo tank motor vehicle and for at least one year thereafter.

(c) [Reserved]

■ 77. In § 178.345–1, revise paragraph (c) to read as follows:

§ 178.345–1 General requirements.

* * * * *

(c) *Definitions.* See § 178.320(a) for the definition of certain terms used in §§ 178.345, 178.346, 178.347, and 178.348.

* * * * *

■ 78. In § 178.345–3, revise paragraphs (f) introductory text, (f)(3) introductory text, and (f)(3)(iii) to read as follows:

§ 178.345–3 Structural integrity.

* * * * *

(f) The design, construction, and installation of an attachment, appurtenance to a cargo tank, structural support member between the cargo tank and the vehicle of suspension component, or accident protection device must conform to the following requirements:

* * * * *

(3) Except as prescribed in paragraphs (f)(1) and (f)(2) of this section, the welding of any appurtenance to the cargo tank wall, internal or external, must be made by attachment of a mounting pad so that there will be no adverse effect upon the lading retention integrity of the cargo tank if any force less than that prescribed in paragraph (b)(1) of this section is applied from any direction. The thickness of the mounting pad may not be less than that of the shell wall or head wall to which it is attached, and not more than 1.5 times the shell or head thickness. However, a pad with a minimum thickness of 0.187 inch may be used when the shell or head thickness is over 0.187 inch. If weep holes or tell-tale holes are used, the pad must be drilled or punched at the lowest point before it is welded to the tank. Each pad must:

* * * * *

(iii) Extend at least two inches in each direction from any point of attachment of an appurtenance.

* * * * *

■ 79. In § 178.345–8, revise paragraph (d) to read as follows:

§ 178.345–8 Accident damage protection.

* * * * *

(d) *Rear-end tank protection.* Each cargo tank motor vehicle must be provided with a rear-end tank protection device to protect the cargo tank and piping in the event of a rear-end collision and reduce the likelihood of damage that could result in the loss of lading. Nothing in this paragraph relieves the manufacturer of responsibility for complying with the requirements of § 393.86 of this title and, if applicable, paragraph (b) of this section. The rear-end tank protection device must conform to the following requirements:

(1) For cargo tanks constructed with any component at the rear of the cargo tank motor vehicle:

(i) For any component on the same horizontal plane as the rear-end protection device, the device must be designed so that it can deflect at least six inches horizontally forward from the device's inboard surface without contacting the component;

(ii) For any component not on the same horizontal plane as the rear-end cargo tank protection device, the device must be designed so that it can deflect at least six inches horizontally forward from the device's outboard surface or with a vertical plane passing through the device's outboard surface without contacting the component.

(2) The dimensions of the rear-end cargo tank protection device shall conform to the following:

(i) The bottom surface of the rear-end protection device must be at least four inches below the lower surface of any part at the rear of the cargo tank motor vehicle that contains lading during transit and not more than 60 inches from the ground when the vehicle is empty.

(ii) The maximum width of a notch, indentation, or separation between sections of a rear-end cargo tank protection device may not exceed 24 inches. A notched, indented, or separated rear-end protection device may be used only when the piping at the rear of the cargo tank is equipped with a sacrificial device outboard of a shut-off valve.

(iii) The widest part of the motor vehicle at the rear may not extend more than 18 inches beyond the outermost ends of the device or (if separated) devices on either side of the vehicle.

(3) The structure of the rear-end protection device and its attachment to the cargo tank motor vehicle must be designed to satisfy the conditions specified in paragraph (d)(1) of this section when subjected to an impact of the cargo tank motor vehicle at the gross vehicle weight rating at a deceleration of two ''g.'' Such impact must be considered as being uniformly applied in the horizontal plane at an angle of 10 degrees or less to the longitudinal axis

of the vehicle. The structures supporting the rear-end protection device, including the frame and the attachments to the frame must also be capable of withstanding the two ''g'' load.

* * * * *

■ 80. In § 178.345–11:

■ a. Revise paragraph (b)(1)(ii); and

■ b. Add paragraph (b)(1)(iv).

The revision and addition read as follows:

§ 178.345–11 Tank outlets.

* * * * *

(b) * * *

(1) * * *

(ii) If the actuating system is accidentally damaged, sheared off during transportation, or fails, each loading/unloading outlet must remain securely closed and capable of retaining lading.

* * * * *

(iv) Mechanical means of remote closure for manual operation must not be obstructed by equipment or appurtenances in a manner that prevents access to or operation of the remote means in an emergency.

* * * * *

■ 81. In § 178.345–13, revise paragraph (a) to read as follows:

§ 178.345–13 Pressure and leakage tests.

(a) Cargo tank motor vehicle manufacturers must perform a pressure and leakage test in accordance with this section and §§ 178.346–5, 178.347–5, or 178.348–5. The leakage test shall be performed after the piping is installed on the cargo tank motor vehicle.

* * * * *

■ 82. In § 178.345–14, revise paragraphs (a), (b)(3), (c)(6), (c)(7), and (d) to read as follows:

§ 178.345–14 Marking.

(a) *General.* The manufacturer shall certify that each cargo tank motor vehicle has been designed, constructed, and tested in accordance with the applicable Specification DOT 406, DOT 407 or DOT 412 (§§ 178.345, 178.346, 178.347, 178.348) cargo tank requirements and, when applicable, with Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter). The certification shall be accomplished by marking the cargo tank as prescribed in paragraphs (b) and (c) of this section, and by preparing the certificate prescribed in § 178.345–15. Metal plates prescribed by paragraphs (b), (c), (d), and (e) of this section must be permanently attached to the cargo tank or its integral supporting structure by brazing, welding, or other suitable means. These plates must be affixed on the left side of the vehicle near the front of the cargo tank (or the front most cargo tank of a multi-cargo tank motor vehicle), in a place readily accessible for inspection. The plates must be permanently and plainly marked in English by stamping, embossing, or other means in characters at least 3/16 inch high. If the information required by this section is displayed on a name plate, the information need not be repeated on the specification plate. The information required by paragraphs (b) and (c) of this section may be combined on one plate.

(b) * * *

(3) Cargo tank MAWP in psig.

* * * * *

(c) * * *

(6) Maximum loading rate in gallons per minute (Max. Load rate, GPM). ''NONE'' may be used to indicate no limit.

(7) Maximum unloading rate in gallons per minute (Max. Unload rate). ''OPEN MH'' or ''NONE'' may be used to indicate no limit.

* * * * *

(d) *Multi-cargo tank motor vehicle.* For a multi-cargo tank motor vehicle having all its cargo tanks not separated by any void, the information required by paragraphs (b) and (c) of this section may be combined on one specification plate. When separated by a void, each cargo tank must have an individual name plate as required in paragraph (b) of this section, unless all cargo tanks are made by the same manufacturer using the same design type, as defined in § 178.320. The cargo tank motor vehicle may have a combined name plate and specification plate. When only one plate is used, the plate must be visible and not covered by insulation. The required information must be listed on the plate from front to rear in the order of the corresponding cargo tank location.

* * * * *

■ 83. In § 178.345–15, revise paragraphs (a), (b)(1), and (e) to read as follows:

§ 178.345–15 Certification.

(a) At or before the time of delivery, the cargo tank motor vehicle manufacturer must supply and the owner must obtain, a cargo tank's ASME Form U–1A data report as required by Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter), and a Certificate of Compliance stating that the completed cargo tank motor vehicle conforms in all respects to the DOT specification and the ASME Code. The registration numbers of the manufacturer, the Design Certifying Engineer, and the Registered Inspector, as appropriate, must appear on the certificates (see subpart F, part 107 in subchapter A of this chapter).

(b) * * *

(1) For each design type, the Certificate of Compliance must be signed by an official of the manufacturer responsible for compliance and a Design Certifying Engineer; and

* * * * *

(e) *Specification shortages.* When a cargo tank motor vehicle is manufactured in two or more stages, the manufacturer of the cargo tank must attach the name plate and specification plate as required by §§ 178.345–14(b) and (c) without the original date of certification stamped on the specification plate. Prior manufacturers must list the specification requirements that are not completed on the Certificate of Compliance. When the cargo tank motor vehicle is brought into full compliance with the applicable specification, the Registered Inspector shall stamp the date of certification on the specification plate and issue a Certificate of Compliance to the owner of the cargo tank motor vehicle. The Certificate of Compliance must list the actions taken to bring the cargo tank motor vehicle into compliance. In addition, the certificate must include the date of compliance and person (manufacturer, carrier, or repair organization) accomplishing compliance.

■ 84. In § 178.348–1, revise paragraphs (d) and (e) to read as follows:

§ 178.348–1 General requirements.

* * * * *

(d) A cargo tank motor vehicle built to this specification with a MAWP greater than 15 psig must be constructed and certified in accordance with Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter).

(e) A cargo tank motor vehicle built to this specification with a MAWP of 15 psig or less must be constructed in accordance with Section VIII of the ASME Code except as modified herein:

(1) The recordkeeping requirements contained in Section VIII of the ASME Code do not apply. Parts UG–90 through 94 in Section VIII do not apply. Inspection and certification must be made by an inspector registered in accordance with subpart F of part 107.

(2) Loadings must be as prescribed in § 178.345–3 of this part.

(3) The knuckle radius of flanged heads must be at least three times the material thickness, and in no case less than 0.5 inch. Stuffed (inserted) heads may be attached to the shell by a fillet weld. The knuckle radius and dish radius versus diameter limitations of UG–32 do not apply for cargo tank

motor vehicles with a MAWP of 15 psig or less. Shell sections of cargo tanks designed with a non-circular cross section need not be given a preliminary curvature, as prescribed in UG–79(b).

(4) Marking, certification, data reports, and name plates must be as prescribed in §§ 178.345–14 and 178.345–15.

(5) Manhole closure assemblies must conform to § 178.345–5.

(6) Pressure relief devices must be as prescribed in § 178.348–4.

(7) The hydrostatic or pneumatic test must be as prescribed in § 178.348–5.

(8) The following paragraphs in parts UG and UW in Section VIII of the ASME Code do not apply: UG–11, UG–12, UG–22(g), UG–32(e), UG–34, UG–35, UG–44, UG–76, UG–77, UG–80, UG–81, UG–96, UG–97, UW–13(b)(2), UW–13.1(f), and the dimensional requirements found in Figure UW–13.1.

PART 179—SPECIFICATIONS FOR TANK CARS

■ 85. The authority citation for part 179 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

■ 86. In § 179.2:

■ a. Revise paragraphs (a) introductory text, and (a)(2);

■ b. Add paragraphs (a)(4) and (a)(9); and

■ c. Revise paragraph (a)(10).

The revisions and addition read as follows:

§ 179.2 Definitions and abbreviations.

(a) In addition to the definitions in §§ 171.8 and 180.503 of this subchapter, the following definitions apply to part 179:

* * * * *

(2) *Approved* means approval by a Design Certifying Engineer registered in accordance with part 107, subpart J.

* * * * *

(4) *Component* means service equipment, safety systems, linings or coatings, other elements specifically required by this part, and any elements used to achieve a performance standard in this part.

* * * * *

(9) *Tank car* means a tank car tank and all of its components.

(10) *Tank car facility* means an entity that qualifies a tank car to ensure its conformance to part 179 or part 180 of this subchapter. A tank car facility must register with PHMSA in accordance with part 107, subpart J, of this chapter.

* * * * *

■ 87. Revise § 179.3 to read as follows:

§ 179.3 Design Approval.

(a) *General.* A Design Certifying Engineer registered in accordance with part 107, subpart J, must approve the following as conforming with the specifications in this part:

(1) Tank car designs, materials and construction, and modifications; and

(2) Service equipment designs, materials and construction, and modifications.

(b) *Procedure.* The Design Certifying Engineer must develop, maintain, and adhere to a written procedure that describes the process used to verify conformance with this subchapter. This procedure must be provided to a representative of the Department upon request. The procedure must include acceptance and rejection criteria for each element approved by the Design Certifying Engineer.

(c) *Approval.* When the Design Certifying Engineer determines such tank cars or service equipment are in compliance with the requirements of this subchapter, the Design Certifying Engineer will approve the design, material and construction, or modification.

(d) *Documentation.* Upon approval of the design, material and construction, or modification, the Design Certifying Engineer shall generate and provide to the tank car or service equipment owner a Design Approval Certificate (see § 179.5). A Design Approval Certificate certifies that the tank car or service equipment fully conforms to all requirements of the specification.

(1) A Design Approval Certificate covers all tank cars or service equipment built to an approved design, material and construction, or modification, provided the tank cars or service equipment are identical.

(2) When ownership of a tank car is transferred, the new owner must obtain the Design Approval Certificate from the previous owner or Design Certifying Engineer for the tank car to remain in service.

■ 88. Revise § 179.4 to read as follows:

§ 179.4 Changes in specifications for tank cars.

(a) Proposed changes in or additions to specifications for tanks must be submitted to a Design Certifying Engineer for review. Construction should not be started until the specification has been approved and a special permit has been issued. When proposing a new specification, the applicant shall furnish information to the Design Certifying Engineer to justify a new specification. This data should include the properties of the lading and the method of loading and unloading.

(b) The Design Certifying Engineer will review the proposed specifications at its earliest convenience and report its recommendations on the approval or disapproval of the specification to the designer of the new tank car specification. The recommendation will be considered by the Department in determining appropriate action.

■ 89. Revise § 179.5 to read as follows:

§ 179.5 Design Approval Certificate.

(a) *General.* Before a tank car is placed in service, the Design Certifying Engineer shall provide a Design Approval Certificate to the tank car or service equipment owner certifying that the tank or service equipment fully conforms to all requirements of the specification.

(b) *Tank car information.* The Design Approval Certificate for tank cars must include the following information, as applicable:

(1) Name, registration number, phone number, and mailing address of Design Certifying Engineer;

(2) Approval date;

(3) Tank specification;

(4) Tank car specification;

(5) Reporting marks and numbers;

(6) Commodity;

(7) Commodity density (lbs. per Gallon);

(8) Full water capacity (Gallons);

(9) Outage (Gallons);

(10) Tank head;

(i) Material type and grade heads;

(ii) Head material normalized (Indicate Yes/No);

(iii) Tank head spliced (Indicate Yes/No);

(iv) Head Charpy test value;

(v) Material thickness heads (Inches); and

(vi) Head radius, main (Inches if not 2:1).

(11) Tank shell;

(i) Material type and grade shell;

(ii) Tank shell material normalized (Indicate Yes/No);

(iii) Shell Charpy test value;

(iv) Material thickness shell (Inches);

(v) Inside diameter—center (Inches); and

(vi) Inside diameter—end rings (Inches).

(12) Coating/lining type and thickness;

(13) Tank test pressure (PSI);

(14) Insulation material;

(i) Insulation type;

(ii) Insulation thickness (Inches); and

(iii) Thermal conductivity (BTU—in/hr.—ft sq.—degree F).

(15) Thermal protection;

(i) Thermal protection material type;

(ii) Thermal protection material thickness (Inches);

(iii) Thermal protection material conductivity (BTU—in/hr.—ft sq.—degree F);
(iv) Jacket thickness; and
(v) Meets § 179.18 thermal protection standard (Indicate Yes/No).
(16) Safety relief devices;
(i) Type of safety relief device;
(ii) Number of safety relief devices;
(iii) Pressure relief device start-to-discharge (PSI);
(iv) Pressure relief device flow capacity (CFM Required); and
(v) Pressure relief device flow capacity (CFM Actual).
(17) Protective systems;
(i) Meets bottom fitting protection standard (Indicate Yes/No);
(ii) Meets top fittings protection standard (Indicate Yes/No); and
(iii) Meets tank head puncture resistance standard (Indicate Yes/No);
(A) Head shield thickness (Inches); and
(B) Head shield material type.
(18) Underframe or stub sill type; and
(19) Weight;
(i) Center of gravity loaded (Inches);
(ii) Estimated light weight (lbs.);
(iii) Rail load limit (lbs.); and
(iv) Truck capacity (Tons).
(20) *Signed Certification Statement.* A certification shall not be considered valid without a signature and certifying statement by a registered Design Certifying Engineer. The following statement may be used for tank car certifications:

''I,_____ [insert Design Certifying Engineer name], have reviewed the above design(s) for a DOT_____[insert DOT specification] tank car(s) and certify compliance in all respects with the specification requirements found in 49 CFR part 179.

_____[Design Certifying Engineer Signature]''

(c) *Tank Car Drawings.* The Design Approval Certificate must include the following detailed design drawings for tank cars:
(1) General arrangement;
(2) Tank arrangement;
(3) Reinforced openings, including calculations;
(4) Anchorage, including calculations;
(5) Fittings arrangement;
(6) Manway assembly;
(7) Manway cover;
(8) Protective housing;
(9) Venting, loading, and discharge valves;
(10) Pressure relief devices;
(11) Heater systems;
(12) Gauging devices;
(13) Bottom outlet valve;
(14) Design calculations;
(15) Gasket drawing; and
(16) Tank qualification drawing.

(d) *Service Equipment Information.* The Design Approval Certificate must include the following information for service equipment, as applicable:
(1) Description of device;
(i) Manufacturer;
(ii) Model; and
(iii) Design revision date.
(2) Approval date;
(3) Commodity;
(4) Construction;
(i) Material of construction;
(ii) Construction method; and
(iii) Seal material.
(5) Design operating temperature;
(6) Operating pressure range at design temperature (PSI); and
(7) *Signed Certification Statement.* A certification shall not be considered valid without a signature and certifying statement by a registered Design Certifying Engineer. The following statement may be used for service equipment certifications:

''I,_____[insert Design Certifying Engineer name], have reviewed the above design for_____[insert service equipment make and model] and it complies in all respects with the requirements found in 49 CFR part 179.

_____[Design Certifying Engineer Signature]''

(e) *Service Equipment Drawings.* The Design Approval Certificate must include the following detailed design drawings for service equipment:
(1) Dimensional drawing;
(2) Securement drawing; and
(3) Design calculations.
(f) *Service Equipment Validation.* The Design Approval Certificate must include the following service equipment validation reports:
(1) Life cycle testing results;
(2) Failure modes and effects analysis; and
(3) Other applicable laboratory testing results.

■ 90. Revise § 179.6 to read as follows:

§ 179.6 Repairs and alterations.

For procedures to make repairs or alterations, see Appendix R of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter). Compliance with paragraphs 1.1; 1.2; 3.2; 3.3; 3.4; and 5.5 is not required. For all repairs not specifically described in Appendix R of the AAR Specifications for Tank Cars, approval by a Design Certifying Engineer is required.

■ 91. In § 179.7, revise paragraph (a) introductory text, (a)(2), (b) introductory text, (b)(3) through (5), (b)(8), (d) and (f) to read as follows:

§ 179.7 Quality assurance program.

(a) A tank car facility must register with PHMSA in accordance with part 107, subpart J, of this chapter. At a minimum, each tank car facility shall have a quality assurance program that—
* * * * *
(2) Has the means to detect any nonconformity in the manufacturing, inspection, testing, qualification, or maintenance of the tank car; and
* * * * *
(b) At a minimum, the quality assurance program must have the following elements:
* * * * *
(3) Procedures to ensure that the latest applicable drawings, design calculations, specifications, and instructions are used in manufacture, inspection, testing, qualification and maintenance.
(4) Procedures to ensure that all materials and components used in the fabrication and construction of a tank car are properly identified and documented, and meet applicable design requirements.
(5) A description of the manufacturing, inspection, testing, and qualification and maintenance program, including the acceptance criteria, so that an inspector can identify the characteristics of the tank car and the elements to inspect, examine, and test at each point.
* * * * *
(8) Provisions indicating that the applicable requirements of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter), apply.
* * * * *
(d) Each tank car facility shall provide written procedures to its employees to ensure that the work on the tank car conforms to the specification, approval, and owner's acceptance criteria.
* * * * *
(f) No tank car facility may manufacture, inspect, test, qualify, or maintain tank cars subject to requirements of this subchapter, unless it is operating in conformance with a quality assurance program and written procedures required by paragraphs (a) and (b) of this section, and maintains a valid tank car facility registration in accordance with part 107, subpart J, of this chapter.

■ 92. In § 179.10, add paragraph (b) to read as follows:

§ 179.10 Tank mounting.

* * * * *
(b) Tank mounting arrangements must meet the requirements of AAR Specifications for Tank Cars Chapter 6 (IBR, see § 171.7 of this subchapter).

■ 93. In § 179.11, revise paragraph (a) to read as follows:

§ 179.11 Welding certification.

(a) Welding procedures, welders, and fabricators must meet the requirements in AAR Specifications for Tank Cars Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 94. In § 179.24:

■ a. Revise paragraph (a)(2); and

■ b. Remove and reserve paragraph (a)(3)(i).

The revision reads as follows:

§ 179.24 Stamping.

(a) * * *

(2) Each plate must be stamped, embossed, or otherwise marked by an equally durable method in letters 3/16-inch high with the following information (parenthetical abbreviations may be used):

(i) *Tank Manufacturer (Tank MFG):* Full name of the car builder.

(ii) *Tank Manufacturer's Serial Number (SERIAL NO):* For the specific car.

(iii) [Reserved]

(iv) *Tank Specification (SPECIFICATION).*

(v) *Tank Shell Material/Head Material (SHELL MATL/HEAD MATL):* ASTM or AAR specification of the material used in the construction of the tank shell and heads. For Class DOT–113W, DOT–115W, AAR–204W, and AAR–206W, the materials used in the construction of the outer tank shell and heads must be listed. Only list the alloy (*e.g.,* 5154) for aluminum tanks and the type (*e.g.,* 304L or 316L) for stainless steel tanks.

(vi) *Insulation Material (INSULATION MATL):* Generic names of the first and second layer of any thermal protection/insulation material applied.

(vii) *Insulation Thickness (INSULATION THICKNESS):* In inches.

(viii) *Underframe/Stub Sill Type (UF/SS DESIGN)*

(ix) *Date of Manufacture (DATE OF MFR):* The month and year of tank manufacture. If the underframe has a different built date than the tank, show both dates.

* * * * *

■ 95. In § 179.100–9, revise paragraph (a) to read as follows:

§ 179.100–9 Welding.

(a) All joints shall be fusion-welded in compliance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 96. In § 179.100–10, revise paragraph (a) to read as follows:

§ 179.100–10 Postweld heat treatment.

(a) After welding is complete, steel tanks and all attachments welded thereto must be postweld heat treated as a unit in compliance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 97. In § 179.100–12, revise paragraph (c) to read as follows:

§ 179.100–12 Manway nozzle, cover and protective housing.

* * * * *

(c) Except as provided in § 179.103, protective housing of cast, forged, or fabricated approved materials must be bolted to manway cover with not less than 20, ¾-inch studs. Alternatively, the protective housing may be bolted to a flange connected to the manway reinforcing pad with not less than 20, ¾-inch studs. The shearing value of the bolts attaching protective housing to manway cover must not exceed 70 percent of the shearing value of bolts attaching manway cover to manway nozzle. Housing must have steel sidewalls not less than ¾ inch in thickness and must be equipped with a metal cover not less than ¼ inch in thickness that can be securely closed. Housing cover must have suitable stop to prevent cover striking loading and unloading connections, and be hinged on one side only with approved riveted pin or rod with nuts and cotters. Openings in wall of housing must be equipped with screw plugs or other closures.

■ 98. In § 179.100–18, revise paragraph (c) to read as follows:

§ 179.100–18 Tests of tanks.

* * * * *

(c) Caulking of welded joints to stop leaks developed during the foregoing test is prohibited. Repairs in welded joints shall be made as prescribed in AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 99. In § 179.102–3, add paragraph (c) to read as follows:

§ 179.102–3 Materials poisonous by inhalation.

* * * * *

(c) For tank cars manufactured after [DATE OF EFFECTIVE DATE], tank car heads and shells must be Charpy impact tested in accordance with AAR Specifications for Tank Cars, Chapter 2, section 2.2.1.2 (IBR, see § 171.7 of this subchapter) and meet the requirements of section 2.2.1.2.

■ 100. In § 179.103–5, revise paragraph (b)(1) to read as follows:

§ 179.103–5 Bottom outlets.

* * * * *

(b) * * *

(1) The extreme projection of the bottom outlet equipment may not be more than allowed by Appendix E of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter). All bottom outlet reducers and closures and their attachments shall be secured to the car by at least ⅜-inch chain, or its equivalent, except that bottom outlet closure plugs may be attached by ¼-inch chain. When the bottom outlet closure is of the combination cap and valve type, the pipe connection to the valve shall be closed by a plug, cap, or approved quick coupling device. The bottom outlet equipment should include only the valve, reducers, and closures that are necessary for the attachment of unloading fixtures. The permanent attachment of supplementary exterior fittings must be approved.

* * * * *

■ 101. In § 179.200–7, amend the table in paragraph (b) by adding an entry for ''ASTM A 537'' 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 537, Class 1	70,000	23
* * * * * * *		

* * * * *

■ 102. In § 179.200–10, revise paragraph (a) to read as follows:

§ 179.200–10 Welding.

(a) All joints shall be fusion-welded in compliance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 103. Revise § 179.200–11 to read as follows:

§ 179.200–11 Postweld heat treatment.

When specified in § 179.201–1, after welding is complete, postweld heat treatment must be in compliance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

■ 104. In § 179.200–17, revise paragraph (a)(1) to read as follows:

§ 179.200–17 Bottom outlets.

(a) * * *

(1) The extreme projection of the bottom outlet equipment may not be more than that allowed by Appendix E of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter). All bottom outlet reducers and closures and their attachments shall be secured to the car by at least ⅜-inch chain, or its equivalent, except that the bottom outlet closure plugs may be attached by ¼-inch chain. When the bottom outlet closure is of the combination cap and valve type, the pipe connection to the valve shall be closed by a plug, cap, or approved quick coupling device. The bottom outlet equipment should include only the valve, reducers, and closures that are necessary for the attachment of unloading fixtures. The permanent attachment of supplementary exterior fittings shall be approved.

* * * * *

■ 105. In § 179.200–22, revise paragraph (d) to read as follows:

§ 179.200–22 Test of tanks.

* * * * *

(d) Caulking of welded joints to stop leaks developed during the foregoing tests is prohibited. Repairs in welded joints shall be made as prescribed in AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

■ 106. In § 179.220–10, revise paragraph (a) to read as follows:

§ 179.220–10 Welding.

(a) All joints must be fusion welded in compliance with AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 107. In § 179.220–11, revise paragraph (b) to read as follows:

§ 179.220–11 Postweld heat treatment.

* * * * *

(b) Postweld heat treatment of the cylindrical portions of the outer shell to which the anchorage or draft sills are attached must comply with AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 108. In § 179.220–15, revise paragraph (b) to read as follows:

§ 179.220–15 Support system for inner container.

* * * * *

(b) The longitudinal acceleration may be reduced to 3G where a cushioning device, which has been tested to demonstrate its ability to limit body forces to 400,000 pounds maximum at a 10 miles per hour impact, is used between the coupler and the tank structure. The support system must be of approved design and the inner container must be thermally isolated from the outer shell to the best practical extent. The inner container and outer shell must be permanently bonded to each other electrically either by the support system used, piping, or a separate electrical connection of approved design.

■ 109. In § 179.220–18, revise paragraph (a)(1) to read as follows:

§ 179.220–18 Bottom outlets.

(a) * * *

(1) The extreme projection of the bottom outlet equipment may not be more than that allowed by Appendix E of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter). All bottom outlet reducers and closures and their attachments shall be secured to car by at least ⅜-inch chain, or its equivalent, except that bottom outlet closure plugs may be attached by ¼-inch chain. When the bottom outlet closure is of the combination cap and valve type, the pipe connection to the valve shall be closed by a plug or cap. The bottom outlet equipment should include only the valve, reducers, and closures that are necessary for the attachment of unloading fixtures. The permanent attachment of supplementary exterior fittings shall be approved.

* * * * *

■ 110. In § 179.300–9, revise paragraph (a) to read as follows:

§ 179.300–9 Welding.

(a) Longitudinal joints must be fusion welded. Head-to-shell joints must be forge welded on class DOT–106A tanks and fusion welded on class DOT–110A tanks. Welding procedures, welders, and fabricators must be in accordance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 111. Revise § 179.300–10 to read as follows:

§ 179.300–10 Postweld heat treatment.

After welding is complete, steel tanks and all attachments welded thereto, must be postweld heat treated as a unit in compliance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

■ 112. In § 179.400–5, revise paragraph (d) to read as follows:

§ 179.400–5 Materials.

* * * * *

(d) Impact test values must be equal to or greater than those specified in AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter). The report of impact tests must include the test values and lateral expansion data.

■ 113. In § 179.400–6, revise paragraph (b) to read as follows:

§ 179.400–6 Bursting and buckling pressure.

* * * * *

(b) The outer jacket of the required evacuated insulation system must be designed in accordance with § 179.400–8(d) and in addition must comply with the design loads specified in Section C—II, Chapter 6 of the AAR Specifications for Freight Cars (IBR, see § 171.7 of this subchapter). The designs and calculations must provide for the loadings transferred to the outer jacket through the support system.

■ 114. In § 179.400–11, revise paragraph (c) to read as follows:

§ 179.400–11 Welding.

* * * * *

(c) Each joint must be welded in accordance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

* * * * *

■ 115. In § 179.400–12, revise paragraph (b) introductory text to read as follows:

§ 179.400–12 Postweld heat treatment.

* * * * *

(b) The cylindrical portion of the outer jacket, with the exception of the circumferential closing seams, must be postweld heat treated as prescribed in AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter). Any item to be welded to this portion of the outer jacket must be attached before postweld heat treatment. Welds securing the following need not be postweld heat treated when it is not practical due to final assembly procedures:

* * * * *

■ 116. In § 179.400–13, revise paragraph (b) to read as follows:

§ 179.400–13 Support system for inner tank.

* * * * *

(b) The support system must be designed to support, without yielding, impact loads producing accelerations of the following magnitudes and directions when the inner tank is fully loaded and the car is equipped with a conventional draft gear:

Longitudinal	7''g''
Transverse	3''g''
Vertical	3''g''

The longitudinal acceleration may be reduced to 3''g'' where a cushioning device, which has been tested to demonstrate its ability to limit body forces to 400,000 pounds maximum at 10 miles per hour, is used between the coupler and the tank structure.

* * * * *

■ 117. Revise § 179.400–15 to read as follows:

§ 179.400–15 Radioscopy.

Each longitudinal and circumferential joint of the inner tank, and each longitudinal and circumferential double welded butt joint of the outer jacket, must be examined along its entire length in accordance with the requirements of AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

■ 118. In § 179.400–18, revise paragraph (b) to read as follows:

§ 179.400–18 Test of inner tank.

* * * * *

(b) Caulking of welded joints to stop leaks developed during the test is prohibited. Repairs to welded joints must be made as prescribed in AAR Specifications for Tank Cars, Appendix W (compliance with paragraph 1.2 is not required) (IBR, see § 171.7 of this subchapter).

■ 119. In § 179.400–19, revise paragraph (a)(2) to read as follows:

§ 179.400–19 Valves and gages.

(a) * * *

(2) Packing, if used, must be satisfactory for use in contact with the lading and of materials that will effectively seal the valve stem without causing difficulty of operation.

* * * * *

■ 120. In § 179.500–17, revise paragraph (a)(4) to read as follows:

§ 179.500–17 Marking.

(a) * * *

(4) Name, mark (other than trademark), or initials of company or person for whose use the tank is being made.

* * * * *

■ 121. In § 179.500–18:

■ a. Revise paragraphs (a) and (b)(6); and

■ b. In the form in paragraph (c), revise the sentence under the heading ''Steel Tanks''.

The revisions read as follows:

§ 179.500–18 Inspection and reports.

(a) Before a tank car is placed in service, the party assembling the completed car shall furnish to the car owner a report in proper form certifying that tanks and their equipment comply with all the requirements of this specification and including information as to serial numbers, dates of tests, and ownership marks on tanks mounted on car structure.

(b) * * *

(6) Inspector shall stamp his official mark on each accepted tank immediately below serial number, and make certified report (see paragraph (c) of this section) to builder, company, or person for whose use tanks are being made, and to builder of car structure on which tanks are to be mounted.

(c) * * *

Steel Tanks

It is hereby certified that drawings were approved for these tanks by a Design Certifying Engineer under date of ____. * * *

* * * * *

■ 122. In Appendix B to part 179, revise paragraphs 1., 2.a.(1), 2.a.(2), 2.b.(6), 3.a.(1), 3.a.(2), and 3.b.(6) to read as follows:

Appendix B to Part 179—Procedures for Simulated Pool and Torch-Fire Testing

1. This test procedure is designed to measure the thermal effects of new or untried thermal protection systems, and to test for system survivability when exposed to a 100-minute pool fire and a 30-minute torch fire. Each sample of the thermal resistance material used in the individual tests, performed under the requirement of this Appendix to test the performance of the thermal protection system, shall be identical (within errors of measurement) in thickness dimensions, and thermodynamic and physical properties, including mass density.

2. * * *

a. * * *

(1) The source of the simulated pool fire must be hydrocarbon fuel with a flame temperature of 871 °C plus or minus 55.6 °C (1600 °F plus-or-minus 100 °F), measured throughout the duration of the test at a distance of not more than 15 cm (6 inches) from the test sample surface along the axis of the fire. Calibration tests must be performed with the steel plate in position.

(2) A square bare plate with thermal properties equivalent to the material of construction of the tank car must be used. The plate dimensions must be not less than 30.5 cm by 30.5 cm (one foot by one foot) by nominal 1.6 cm (0.625 inch) thick. The bare plate must be instrumented with not less than nine thermocouples to record the thermal response of the bare plate. The thermocouples must be attached to the surface not exposed to the simulated pool fire, and must be divided into nine equal squares with a thermocouple placed in the center of each square.

* * * * *

b. * * *

(6) A minimum of three consecutive successful simulation fire tests, separate and conducted at different times, must be performed for each thermal protection system.

* * * * *

3. * * *

a. * * *

(1) The source of the simulated torch must be a hydrocarbon fuel with a flame temperature of 1,204 °C plus-or-minus 55.6 °C (2,200 °F plus or minus 100 °F), measured throughout the duration of the test at a distance of not more than 15 cm (6 inches) from the test sample surface, along the axis of the fire. Furthermore, torch velocities must be 64.4 km/h ±16 km/h (40 mph ±10 mph) throughout the duration of the test at a distance of not more than 15 cm (6 inches) from the test sample surface along the axis of the fire. Calibration tests must be performed with the steel plate in position.

(2) A square bare plate with thermal properties equivalent to the material of construction of the tank car must be used. The plate dimensions must be at least 122 cm by 122 cm (four feet by four feet) by nominal 1.6 cm (0.625 inch) thick. The bare plate must be instrumented with not less than nine thermocouples to record the thermal response of the plate. The thermocouples must be attached to the surface not exposed to the simulated torch, and must be divided into nine equal squares with a thermocouple placed in the center of each square.

* * * * *

b. * * *

(6) A minimum of two consecutive successful torch-simulation tests, separate

and conducted at different times, must be performed for each thermal protection system.

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

■ 123. The authority citation for part 180 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 49 CFR 1.81 and 1.97.

■ 124. In § 180.3:
■ a. Revise paragraph (b)(3); and
■ b. Add paragraphs (c) and (d).

The revision and additions read as follows:

§ 180.3 General requirements.

* * * * *

(b) * * *

(3) Test dates displayed in association with specification, registration, approval, exemption, or special permit markings indicating conformance to a test or retest requirement of this subchapter, an approval issued thereunder, or a special permit issued under subchapter A of this chapter;

* * * * *

(c) No person shall mark or issue a report indicating that a packaging has passed a test or inspection under this subpart, unless the packaging has actually been tested or inspected as required by this subpart.

(d) No person shall falsify a document or marking indicating a packaging as having passed a test or inspection under this subpart.

■ 125. In § 180.403:
■ a. Add definitions for ''certification plate'', ''maintenance'', ''objectively reasonable and articulable belief'', and ''set pressure'' in alphabetical order; and
■ b. Revise the definition of ''repair''.

The revision and additions read as follows:

§ 180.403 Definitions.

* * * * *

Certification plate means a data plate containing the applicable markings provided in the original specifications for cargo tanks no longer authorized for construction (as identified in § 180.405(c)), and permanently attached to the cargo tank or integral supporting structure by the manufacturer. The markings on this plate are the certification by the manufacturer that the cargo tank or the cargo tank motor vehicle has been designed, constructed, and tested in accordance with the applicable specification.

* * * * *

Maintenance means replacement of components other than welding on the cargo tank wall, on specification cargo tanks or cargo tank motor vehicles.

* * * * *

Objectively reasonable and articulable belief means a belief based on particularized and identifiable facts that provide an objective basis to believe or suspect that a cargo tank or series of cargo tanks may be in an unsafe operating condition.

* * * * *

Repair means any welding on a cargo tank wall, including replacing 50 percent or less of the combined shell and head material of a cargo tank, done to return a cargo tank or a cargo tank motor vehicle to its original design and construction specification, or to a condition prescribed for a later equivalent specification in effect at the time of the repair. Excluded from this category are the following:

(1) A change to motor vehicle equipment such as lights, truck or tractor power train components, steering and brake systems, and suspension parts, and changes to appurtenances, such as fender attachments, lighting brackets, and ladder brackets;

(2) Replacement of components such as valves, vents, and fittings with a component of a similar design and of the same size; and

(3) Replacement of an appurtenance by welding to a mounting pad.

* * * * *

Set pressure means the pressure of the pressure relief device or system at which it starts to open, allowing discharge.

* * * * *

■ 126. In § 180.405:
■ a. Add paragraphs (b)(3);
■ b. Revise paragraphs (c)(2);
■ c. Add paragraphs (c)(3) and (4);
■ d. Revise paragraphs (h)(3), and (j); and
■ e. Add paragraph (p).

The revisions and additions read as follows:

§ 180.405 Qualification of cargo tanks.

* * * * *

(b) * * *

(3) *Replacement of missing specification plates.* (i) The replacement of cargo tank and cargo tank motor vehicle specification plates required by this subchapter may be performed by the original manufacturer, or by a Registered Inspector who has been given necessary information by the original cargo tank or cargo tank motor vehicle manufacturer, provided the cargo tank motor vehicle owner has the paperwork documenting the traceability of the specification of the cargo tank or cargo tank motor vehicle.

(ii) If the original manufacturer has been purchased by another entity, and that entity has sufficient paperwork documenting the manufacture of that cargo tank or cargo tank motor vehicle, the entity may apply a replacement specification plate or provide instructions to a Registered Inspector to apply the replacement specification plate.

(iii) If the original manufacturer is no longer in business, or the paperwork documenting the traceability of the specification of the cargo tank or cargo tank motor vehicle is not available, the cargo tank or cargo tank motor vehicle is no longer an authorized specification packaging for hazardous materials transportation. See § 180.405(j).

(iv) The cargo tank motor vehicle owner shall retain, and make available to a representative of the Department upon request, all documentation proving the traceability of the cargo tank manufacturer or cargo tank motor vehicle manufacturer, as applicable, until the cargo tank or cargo tank motor vehicle is permanently rendered no longer capable of retaining lading, and for one year thereafter.

(c) * * *

(2) A cargo tank motor vehicle of a specification listed in paragraph (c)(1) of this section may have its pressure relief devices and outlets modified in accordance with paragraph (h) of this section and § 173.33(d) of this subchapter.

(3) A cargo tank motor vehicle manufactured and certified prior to the dates listed in table 1 or table 2 of this section may be mounted on a different truck chassis provided the mounting and certification is performed in accordance with this subchapter.

* * * * *

(h) * * *

(3) As provided in paragraph (c)(2) of this section, and in § 173.33(d) of this subchapter, the owner of a cargo tank motor vehicle may elect to modify reclosing pressure relief devices to more current cargo tank specifications. However, replacement devices constructed to the requirements of § 178.345–10 of this subchapter must provide the minimum venting capacity required by the original specification to which the cargo tank was designed and constructed.

* * * * *

(j) *Withdrawal of certification.* A specification cargo tank that for any reason no longer meets the applicable specification may not be used to transport hazardous materials unless the cargo tank is repaired and retested in accordance with §§ 180.407 and 180.413

prior to being returned to hazardous materials service. If the cargo tank motor vehicle is not in conformance with the applicable specification requirements, the specification plate must be removed, obliterated, or securely covered. The method of covering must withstand conditions normally incident to transportation. The details of the conditions necessitating withdrawal of the certification must be recorded and signed on the Certificate of Compliance for that cargo tank. The vehicle owner shall retain the Certificate of Compliance for at least one year after withdrawal of the certification.

* * * * *

(p) *Visual Inspection of Remote Device.* At the next external visual inspection after [DATE OF EFFECTIVE DATE], each specification cargo tank motor vehicle equipped with a mechanical means of remote closure shall be inspected to ensure that access or means of manual operation is not obstructed by equipment or appurtenances. The remote closure device may not be in the driver's cab and must be as far forward on the cargo tank as practicable. Any manually operated remote closure device not in compliance with this paragraph must be repaired prior to passing the external visual inspection.

■ 127. In § 180.407, revise paragraphs (a), (b)(1), (b)(3), (b)(5), (c) introductory text, (d), (f) introductory text, (f)(2), (f)(3), (g)(1)(ii), (g)(1)(iii), (g)(1)(viii), (g)(3), (g)(6), (h), (i)(4)(v), (i)(6)(i) and (i)(6)(ii) to read as follows:

§ 180.407 Requirements for test and inspection of specification cargo tanks.

(a) *General.* (1) A cargo tank motor vehicle constructed in accordance with a DOT specification or otherwise required by this subchapter to comply with this subpart, for which a test or inspection specified in this section has become due, may not be filled and offered for transportation or transported until the test or inspection has been successfully completed. This paragraph does not apply to any cargo tank filled prior to the test or inspection due date and offered for transportation or transported after the test or inspection due date (see § 173.33(a)(3) of this subchapter).

(2) Except during a pressure test, a cargo tank may not be subjected to a pressure greater than the design pressure or MAWP marked on the name plate or certification plate.

(3) A person witnessing or performing a test or inspection specified in this section must meet the minimum qualifications prescribed in § 180.409.

(4) Each cargo tank must be evaluated in accordance with the acceptable results of tests and inspections prescribed in § 180.411.

(5) Each cargo tank motor vehicle that has successfully passed a test or inspection specified in this section must be marked in accordance with § 180.415.

(6) A cargo tank motor vehicle that has not been properly inspected or fails a prescribed test or inspection must:

(i) Be repaired and retested in accordance with § 180.413; or

(ii) Be removed from hazardous materials service and the specification plate removed, obliterated, or covered in a secure manner. The method of covering must at a minimum withstand conditions normally incident to transportation.

(7) All equipment and instruments required to be used to perform a function under part 180 subpart E must be calibrated in accordance with the manufacturer's instructions. The facility must retain records documenting the type of calibration, date calibrated, and who performed the calibration. The facility must retain a copy of documentation of the two most recent calibrations, which must be made available to a representative of the Department upon request.

(8) The use of video cameras or fiber optics equipment is authorized for any test or inspection, or portion thereof, provided all the required areas and elements can be viewed and evaluated according to this part 180 subpart E. The use of such equipment shall be documented on the report required by § 180.417.

(9) For any test or inspection that requires a cargo tank motor vehicle to be tested at a pressure greater than 50 psig, the hydrostatic method shall be used, except for MC 338 cargo tanks used to transport cryogenic liquids. In all pressure and leakage tests, suitable safeguards must be provided to protect personnel should a system failure occur.

(10) The Registered Inspector shall consult with the owner or motor carrier, as appropriate, to determine if materials corrosive or reactive to the cargo tank or its components were transported in the cargo tank motor vehicle since the last test or inspection was performed. The Registered Inspector shall indicate whether the cargo tank motor vehicle transported a material corrosive or reactive to the cargo tank or its components on the § 180.415 report, and use this information to determine the proper tests and inspections to be conducted on the cargo tank motor vehicle.

(11) For all tests or inspections subject to this subpart, all sources of spark, flame, or glowing heat within the area of enclosure (including any heating system drawing air therefrom) are extinguished, made inoperable, or rendered explosion-proof by a suitable method prior to the tests or inspections being performed.

(b) * * *

(1) The cargo tank shows evidence of dents, cuts, gouges, bulges, corroded or abraded areas, leakage, or any other condition that might render it unsafe for hazardous materials service. At a minimum, any area of a cargo tank showing evidence of dents, cuts, digs, gouges, bulges, or corroded or abraded areas must be thickness tested in accordance with the procedures set forth in paragraphs (i)(2), (i)(3), (i)(5), (i)(6), (i)(9), and (i)(10) of this section; and evaluated in accordance with the criteria prescribed and minimum thickness definition in §§ 178.320 and 180.411 of this subchapter, respectively. Any signs of leakage must be repaired. All repairs must be performed in accordance with § 180.413. The suitability of any repair affecting the structural integrity of the cargo tank must be determined either by the testing required in the applicable manufacturing specification or in paragraph (g)(1)(iv) of this section.

* * * * *

(3) The cargo tank motor vehicle has been out of hazardous materials transportation service for a period of one year or more. For each cargo tank motor vehicle that has been out of hazardous materials transportation service for a period of one year or more, a pressure test in accordance with § 180.407(g) must be conducted prior to further use in hazardous materials transportation.

* * * * *

(5) The Department so requires based on the objectively reasonable and articulable belief that the cargo tank is in an unsafe operating condition.

(c) *Periodic test and inspection.* Each cargo tank motor vehicle subject to this subpart must be tested and inspected as specified in the following table by a Registered Inspector meeting the qualifications in § 180.409. The retest date shall be determined from the specified interval identified in the following table from the most recent inspection completed in accordance with the requirements in part 180 or the cargo tank motor vehicle certification date.

* * * * *

(d) *External visual inspection and testing.* The following applies to the

external visual inspection and testing of cargo tanks:

(1) Where insulation, or coverings such as wrappings and coatings, precludes a complete external visual inspection as required by paragraphs (d)(2) through (d)(6) of this section, the cargo tank also must be given an internal visual inspection in accordance with paragraph (e) of this section. If external visual inspection is precluded because any part of the cargo tank wall is externally lined, coated, or designed to prevent an external visual inspection, those areas of the cargo tank must be internally inspected. If internal visual inspection is precluded because the cargo tank is lined, coated, or designed so as to prevent access for internal inspection, the tank must be hydrostatically or pneumatically tested in accordance with paragraph (g)(1)(iv) of this section. Those items able to be externally inspected must be externally inspected and noted in the inspection report.

(2) The external visual inspection and testing must include as a minimum the following:

(i) The tank shell and heads must be inspected for corroded or abraded areas, dents, distortions, and defects in welds, and evaluated in accordance with § 180.411. During the inspection of the cargo tank shell and heads, all pad attachments on either the cargo tank shell or head shall be inspected for method of attachments and any other conditions that might render the appurtenance as unsafe;

(ii) The piping system, which includes piping, flexible connectors, valves, and gaskets, must be carefully inspected for corroded areas, defects in welds, and other conditions, including leakage, that might render the tank unsafe for transportation service;

(iii) All devices for tightening manhole covers must be operative and there must be no evidence of leakage at manhole covers or gaskets;

(iv) All emergency devices and valves, including self-closing stop valves, excess flow valves, and remote closure devices, including all emergency discharge control systems and delivery hoses required by § 173.315(n), must be inspected for corrosion, distortion, erosion, and any external damage that will prevent safe operation. All emergency closure devices and self-closing stop valves must be operated to demonstrate proper functioning. The distance for testing non-mechanical remote shutoff devices must be in accordance with the original device manufacturer's specification;

(v) Missing bolts, nuts and fusible links or elements must be replaced, and loose bolts and nuts must be tightened;

(vi) All markings on the cargo tank required by parts 172, 178, and 180 of this subchapter must be legible;

(vii) [Reserved]

(viii) All appurtenances and structural attachments on the cargo tank including, but not limited to, suspension system attachments, connecting structures, and those elements of the upper coupler (including the king pin) assembly that can be inspected without dismantling the upper coupler assembly must be inspected for any corrosion or damage that might prevent safe operation;

(ix) For cargo tank motor vehicles transporting lading corrosive to the cargo tank, areas covered by the upper coupler assembly must be inspected at least once in each two-year period for corroded and abraded areas, dents, distortions, defects in welds, and any other condition that might render the tank unsafe for transportation service. The upper coupler assembly must be removed from the cargo tank for this inspection except when the upper coupler allows for a complete inspection of the area of the cargo tank that is directly above the upper coupler, and the inspection is conducted by directly viewing the cargo tank. Directly viewing means the area is inspected without the use of an aid, such as mirrors, cameras, or fiber optics. If the upper coupler is removed from the cargo tank motor vehicle, it must be reattached in accordance with the manufacturer's instructions and § 393.70.

(3) For reclosing pressure relief devices, the following applies:

(i) All reclosing pressure relief devices must be externally inspected for any corrosion or damage that might prevent safe operation.

(ii) All reclosing pressure relief devices on cargo tank motor vehicles carrying lading corrosive to the pressure relief device must be removed from the cargo tank motor vehicle for inspection and bench testing in accordance with paragraph (j) of this section.

(4) Ring stiffeners or appurtenances, installed on cargo tank motor vehicles constructed of mild steel or high-strength, low-alloy steel, that create air cavities adjacent to the tank shell that do not allow for external visual inspection must be thickness tested in accordance with paragraphs (i)(2) and (i)(3) of this section, at least once every two years. At least four symmetrically distributed readings must be taken to establish an average thickness for the ring stiffener or appurtenance. If any thickness reading is less than the average thickness by more than 10 percent, thickness testing in accordance with paragraphs (i)(2) and (i)(3) of this section must be conducted from the inside of the cargo tank on the area of the tank wall covered by the ring stiffener or appurtenance.

(5) Corroded or abraded areas of the cargo tank wall must be thickness tested in accordance with the procedures set forth in paragraphs (i)(2), (i)(3), (i)(5), (i)(6), (i)(9), and (i)(10) of this section.

(6) The gaskets on any full opening rear head must be:

(i) Visually inspected for cracks or splits caused by weather or wear; and

(ii) Replaced if cuts or cracks that are likely to cause leakage, or are of a depth ½ inch or more, are found.

(7) External ring stiffeners installed on cargo tank motor vehicles must be inspected for corrosion, pitting, abraded areas, or damage, and repaired as appropriate.

(8) Welded repairs on the cargo tank wall must be inspected for leakage and weld defects. The Registered Inspector must verify that the welded repair was done in accordance with § 180.413.

(9) The inspector must record the results of the external visual examination as specified in § 180.417(b).

* * * * *

(f) *Lining inspection.* When lining is required by this subchapter, the integrity of the cargo tank lining must be verified at least once each year as follows:

* * * * *

(2) For linings made of materials other than rubber (elastomeric material), the owner of the cargo tank motor vehicle must obtain documentation from the lining manufacturer or installer that specifies the proper procedure for the lining inspection. This documentation must be provided to the Registered Inspector before inspection.

(3) Degraded or defective areas of the cargo tank lining must be removed and the cargo tank wall below the defect must be inspected. Corroded areas of the tank wall must be thickness tested in accordance with paragraphs (i)(2), (i)(3), (i)(5), (i)(6), (i)(9), and (i)(10) of this section. If the degraded or defective areas of the cargo tank lining are repaired or if the lining is replaced, it must comply with lining manufacturer or installer procedures, subject to the lining requirements of this subchapter.

* * * * *

(g) * * *

(1) * * *

(ii) All self-closing pressure relief devices, including emergency relief

devices and normal vent devices, must be removed from the cargo tank motor vehicle for inspection and bench testing in accordance with paragraph (j) of this section.

(iii) Except for cargo tank motor vehicles carrying lading corrosive to the cargo tank, areas covered by the upper coupler assembly must be inspected for corroded and abraded areas, dents, distortions, defects in welds, and any other condition that might render the tank unsafe for transportation service. The upper coupler assembly must be removed from the cargo tank for this inspection except when the upper coupler allows for a complete inspection of the area of the cargo tank that is directly above the upper coupler, and the inspection is conducted by directly viewing the cargo tank. Directly viewing means the area is inspected without the use of an aid, such as mirrors, cameras, or fiber optics. If the upper coupler is removed from the cargo tank, it must be reattached in accordance with the manufacturer's instructions and § 393.70.

* * * * *

(viii) *Hydrostatic test method.* Each cargo tank must be filled with water or other liquid having similar viscosity, at a temperature not exceeding 100 °F. The cargo tank must then be pressurized as specified in paragraph (g)(1)(iv) of this section. The cargo tank, including its closures, must hold the prescribed test pressure for at least 10 minutes during which time it shall be inspected for leakage, bulging or any other defect.

* * * * *

(3) Each MC 330 and MC 331 cargo tank constructed of quenched and tempered steel in accordance with Part UHT in Section VIII of the ASME Code (IBR, see § 171.7 of this subchapter), or constructed of other than quenched and tempered steel but without postweld heat treatment, and used for the transportation of anhydrous ammonia or any other hazardous materials that may cause corrosion stress cracking, must be internally inspected by the wet fluorescent magnetic particle method immediately prior to and in conjunction with the performance of the pressure test prescribed in this section. Each MC 330 and MC 331 cargo tank constructed of quenched and tempered steel in accordance with Part UHT in Section VIII of the ASME Code and used for the transportation of liquefied petroleum gas must be internally inspected by the wet fluorescent magnetic particle method immediately prior to and in conjunction with the performance of the pressure test prescribed in this section. The wet fluorescent magnetic particle inspection must be in accordance with Section V of the ASME Code and CGA Technical Bulletin P–26 (formerly TB–2) (IBR, see § 171.7 of this subchapter). This paragraph does not apply to cargo tanks that do not have manholes. (See § 180.417(c) for reporting requirements.)

* * * * *

(6) *Acceptance criteria.* A cargo tank motor vehicle that leaks, fails to retain test pressure, shows distortion, or displays other evidence of weakness that might render the cargo tank motor vehicle unsafe for transportation service may not be returned to service, except as follows: A cargo tank motor vehicle with a heating system that does not hold pressure may remain in service as an unheated cargo tank motor vehicle if:

* * * * *

(h) *Leakage test.* The following requirements apply to cargo tanks requiring a leakage test:

(1) Each cargo tank must be tested for leaks in accordance with paragraph (c) of this section. The leakage test must include all components of the cargo tank wall, and the piping system with all valves and pressure relief devices in place and operative, except that any pressure relief devices set to discharge at less than the leakage test pressure must be removed or rendered inoperative during the test. All internal or external self-closing stop valves must be tested for leak tightness. Each cargo tank of a multi-cargo tank motor vehicle must be tested with adjacent cargo tanks empty and at atmospheric pressure. Test pressure must be maintained for at least five minutes. Cargo tanks in liquefied compressed gas service must be externally inspected for leaks during the leakage test. Suitable safeguards must be provided to protect personnel should a failure occur. Cargo tanks may be leakage tested with hazardous materials contained in the cargo tank during the test. Leakage test pressure must be no less than 80 percent of MAWP marked on the specification plate except as follows:

(i) A cargo tank motor vehicle with an MAWP of 690 kPa (100 psig) or more may be leakage tested at its maximum normal operating pressure provided it is in dedicated service or services.

(ii) A specification MC 330 or MC 331 cargo tank motor vehicle or a non-specification cargo tank motor vehicle authorized under § 173.315(k) of this subchapter in dedicated liquefied petroleum gas service may be leakage tested at not less than 414 kPa (60 psig).

(iii) An operator of a specification MC 330 or MC 331 cargo tank motor vehicle, or a non-specification cargo tank authorized under § 173.315(k) of this subchapter, equipped with a meter may check leak tightness of the internal self-closing stop valve by conducting a meter creep test. (See Appendix B to this part.).

(iv) A specification MC 330 or MC 331 cargo tank motor vehicle in dedicated service for anhydrous ammonia may be leakage tested at not less than 414 kPa (60 psig).

(v) A non-specification cargo tank required by § 173.8(d) of this subchapter to be leakage tested must be leakage tested at not less than 16.6 kPa (2.4 psig), or as specified in paragraph (h)(2) of this section.

(2) Cargo tank motor vehicles used to transport petroleum distillate fuels that are equipped with vapor collection equipment may be leak tested in accordance with the Environmental Protection Agency's ''Method 27—Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test,'' as set forth in Appendix A to 40 CFR part 60. Test methods and procedures, and maximum allowable pressure and vacuum changes, are in 40 CFR 63.425(e). The hydrostatic test alternative, using liquid in Environmental Protection Agency's ''Method 27—Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test,'' may not be used to satisfy the leak testing requirements of this paragraph. The test must be conducted using air.

(3) A cargo tank motor vehicle that has leaks or fails to retain leakage test pressure may not be returned to service until repaired as required by this subpart.

(4) Registered Inspectors conducting a leakage test on specification MC 330 and MC 331 cargo tank motor vehicles, and non-specification cargo tank motor vehicles authorized under § 173.315(k) of this subchapter, must visually inspect the delivery hose assembly and piping system, including any delivery hose assembly used to meet § 173.315(n), while the assembly is under leakage test pressure utilizing the rejection criteria listed in § 180.416(g). The test pressure of the delivery hose assembly must be at least 80 percent of the MAWP of the cargo tank. Delivery hose assemblies not permanently attached to the cargo tank motor vehicle may be inspected and tested while not attached to the cargo tank motor vehicle. In addition to a written record of the inspection prepared in accordance with § 180.417(b), the Registered Inspector conducting the test must note the hose identification number, the date of the test, and the condition of the hose assembly and piping system tested.

(5) The inspector must record the results of the leakage test as specified in § 180.417(b).

(i) * * *

(4) * * *

(v) Areas around shell reinforcements including around all ring stiffeners and those areas in the bottom half of the cargo tank;

* * * * *

(6) * * *

(i) A Design Certifying Engineer must certify that the cargo tank design and thickness are appropriate for the reduced loading conditions by issuance of a revised manufacturer's certificate. The DCE must provide this revised certificate to the cargo tank motor vehicle owner, and

(ii) The cargo tank motor vehicle's name plate or certification plate must reflect the revised service limits.

* * * * *

■ 128. In § 180.409:

■ a. Revise paragraph (a) introductory text; and

■ b. Add paragraph (a)(4).

The revision and addition read as follows:

§ 180.409 Minimum qualifications for inspectors and testers.

(a) A person performing or witnessing the inspections and tests specified in this subpart must—

* * * * *

(4) Meet the training requirements of part 172 subpart H.

* * * * *

■ 129. In § 180.411:

■ a. Revise paragraphs (b) introductory text, (b)(1), and (g) introductory text; and

■ b. Add paragraph (h).

The revisions and addition read as follows:

§ 180.411 Acceptable results of tests and inspections.

* * * * *

(b) *Dents, cuts, digs, bulges, and gouges.* For evaluation procedures, see CGA C–6 (IBR, see § 171.7 of this subchapter).

(1) For dents or bulges at welds or that include a weld, the maximum allowable depth is ½ inch. For dents or bulges away from welds, the maximum allowable depth is 1/10 of the greatest dimension of the dent, but in no case may the depth exceed one inch.

* * * * *

(g) *Pressure test.* Any cargo tank that fails to meet the acceptance criteria found in the individual specification that applies must be properly repaired.

(h) *Conditions requiring removal from service.* (1) If the Registered Inspector determines that a cargo tank motor vehicle, for any reason, does not meet the applicable design specification, the qualification requirements of § 180.405, or fails any test or inspection required by this subpart, it may not be represented as a DOT specification cargo tank motor vehicle.

(2) The cargo tank motor vehicle shall not be used in specification service until it is in compliance with the specification requirements and has been successfully tested and inspected as required by § 180.407(c) of this subpart.

■ 130. In § 180.413, revise paragraph (b)(6) to read as follows:

§ 180.413 Repair, modification, stretching, rebarrelling, or mounting of specification cargo tanks.

* * * * *

(b) * * *

(6) MC 330 and MC 331 cargo tanks must be repaired in accordance with the repair procedures described in CGA Technical Bulletin P–26 (formerly TB–2) (IBR, see § 171.7 of this subchapter) and the National Board Inspection Code (IBR, see § 171.7 of this subchapter). Each cargo tank having cracks or other defects requiring welded repairs must meet all inspection, test, and heat treatment requirements in § 178.337–16 of this subchapter in effect at the time of the repair, except that postweld heat treatment after minor weld repairs is not required. When a repair is made of defects revealed by the wet fluorescent magnetic particle inspection, including those repaired by grinding, the affected area of the cargo tank must again be examined by the wet fluorescent magnetic particle method after hydrostatic testing to assure that all defects have been removed.

* * * * *

■ 131. In § 180.415, revise paragraph (b) introductory text to read as follows:

§ 180.415 Test and inspection markings.

* * * * *

(b) Each cargo tank must be durably and legibly marked, in English, with the date (month and year), the type of test or inspection performed, and if not already marked on the cargo tank, the registration number, as required by part 107, subpart F, of this chapter, of the person performing the test or inspection, subject to the following provisions:

* * * * *

■ 132. In § 180.416, revise paragraphs (a), (b), (c), (f) introductory text, and (f)(3) to read as follows:

§ 180.416 Discharge system inspection and maintenance program for cargo tanks transporting liquefied compressed gases.

(a) *Applicability.* This section is applicable to an operator using specification MC 330, MC 331, and non-specification cargo tank motor vehicles authorized under § 173.315(k) of this subchapter for transportation of liquefied compressed gases other than carbon dioxide. Paragraphs (b), (c), (d)(1), (d)(5), (e), (f), and (g)(1) of this section, applicable to delivery hose assemblies, apply only to hose assemblies installed or carried on the cargo tank.

(b) *Hose identification.* The operator must assure that each delivery hose assembly is permanently marked with a unique identification number and maximum working pressure.

(c) *Post-delivery hose check.* After each unloading, the operator must visually check that portion of the delivery hose assembly deployed during the unloading using the rejection criteria identified in paragraph (g) of this section.

* * * * *

(f) *New or repaired delivery hose assemblies.* Each operator of a cargo tank motor vehicle must ensure each new and repaired delivery hose assembly is tested at a minimum of 120 percent of the hose maximum working pressure.

* * * * *

(3) The operator must complete a record documenting the test and inspection, including the date, the signature of the inspector, the hose owner, the hose identification number, the date of original delivery hose assembly and test, notes of any defects observed and repairs made, and an indication that the delivery hose assembly passed or failed the tests and inspections. A copy of each test and inspection record must be retained by the operator at its principal place of business or where the vehicle is housed or maintained until the next test of the same type is successfully completed.

* * * * *

■ 133. In § 180.501, revise paragraph (b) to read as follows:

§ 180.501 Applicability

* * * * *

(b) This subpart also establishes the minimum acceptable framework for an owner's qualification and maintenance program for tank cars and components. Owners should follow this subpart in developing their written procedures (work instructions), as required under § 179.7(d), for use by tank car facility employees. The owner's qualification

and maintenance program for each tank car, or a fleet of tank cars, must identify where to inspect, how to inspect, and the acceptance criteria. Alternative inspection and test procedures or intervals based on a damage-tolerance analysis or service reliability assessment must be approved by the Associate Administrator for Railroad Safety in accordance with § 180.509(l). Tank car facilities must incorporate the owner's qualification and maintenance program in their quality assurance program, as required under § 179.7(a)(2), (b)(3), (b)(5), and (d).

* * * * *

■ 134. In § 180.503, revise the definitions of ''coating/lining owner'', ''maintenance'', ''modification'', the first sentence of ''qualification'', ''service equipment'', ''service equipment owner'', and ''tank car owner'' to read as follows:

§ 180.503 Definitions.

* * * * *

Coating/lining owner means the person responsible for the development or approval, and execution of the qualification and maintenance program for the coating/lining.

* * * * *

Maintenance means performance of functions including repairs, necessary and appropriate to ensure an in-operation tank car's specification until its next qualification.

Modification means any change to a tank car that affects the Design Approval Certificate prescribed in § 179.5 or the certificate of construction for tank cars manufactured prior to [DATE ONE YEAR FROM EFFECTIVE DATE], including an alteration prescribed in § 179.6, or conversion.

* * * * *

Qualification, as relevant to a tank car, means the car and its components conforms to the specification to which it was designed, manufactured, or modified to the requirements of this subpart, to the approved design, and to the owner's acceptance criteria. * * *

* * * * *

Service equipment means pressure or lading retaining equipment including but not limited to:

(1) Pressure relief devices;
(2) Valves;
(3) Closures;
(4) Fittings;
(5) Manway covers;
(6) Fill-hole covers;
(7) Vents;
(8) Sampling equipment;
(9) Vacuum relief equipment;
(10) Devices used for measuring the amount of lading and/or lading temperature;
(11) Devices used for flow restriction;
(12) Interior heating systems; or
(13) Other devices used for loading and unloading (*e.g.,* siphon pipe).

Service equipment owner means the person responsible for the development or approval, and execution of the qualification and maintenance program for the service equipment.

Tank car owner means the person responsible for the development or approval, and execution of the qualification and maintenance program for the tank car.

* * * * *

■ 135. In § 180.509, revise paragraphs (i)(1) and (k)(2) to read as follows:

§ 180.509 Requirements for inspection and test of specification tank cars.

* * * * *

(i) * * *

(1) At a minimum, the owner of an internal coating or lining applied to protect a tank used to transport a material that is corrosive or reactive to the tank must ensure an inspection adequate enough to detect defects or other conditions that could reduce the design level of reliability and safety of the tank is performed. In addition, the owner of a coating or lining of tank cars used to transport hazardous materials corrosive or reactive to the tank must ensure the lining complies with §§ 173.24(b)(2) and (b)(3) of this subchapter.

* * * * *

(k) * * *

(2) Service equipment, including reclosing pressure relief devices and interior heater systems, must conform to the applicable provisions of Appendix D of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter).

* * * * *

■ 136. In § 180.513, revise paragraph (b) to read as follows:

§ 180.513 Repairs, alterations, conversions, and modifications.

* * * * *

(b) *Responsibilities of Tank Car Facility.* A tank car facility must obtain the permission of the equipment owner before performing work affecting alteration, conversion, repair, or qualification of the owner's equipment. For the purposes of qualification and maintenance, the tank car facility must use the written instructions furnished by the owner and have written confirmation from the owner allowing the use of written instructions furnished by the owner; or have written confirmation from the owner allowing the use of written instructions furnished by another. A tank car facility must not use, copy, distribute, forward, or provide to another person the owner's confidential and proprietary written instructions, procedures, manuals, and records without the owner's permission. A tank car facility must report all work performed to the owner. The tank car facility must also report observed damage, deterioration, failed components, or non-compliant parts to the owner. A tank car facility must incorporate the owner's qualification and maintenance program into their own Quality Assurance Program.

* * * * *

■ 137. In § 180.517:

■ a. Revise paragraphs (a) and (b)(8); and

■ b. Add paragraph (b)(9).

The revisions and addition read as follows:

§ 180.517 Reporting and record retention requirements.

(a) *Certification and representation.* Each owner of a specification tank car must retain the Design Approval Certificate or the certificate of construction (AAR Form 4–2) for a specification tank car manufactured prior to [DATE ONE YEAR FROM EFFECTIVE DATE] and related qualification reports certifying that the manufacture or maintenance of the specification tank car identified in the documents is in accordance with the applicable specification. The qualification reports generated by the tank car facility and the marking of the tank car with the tank specification is the representation that all of the appropriate inspections and tests were successfully performed to qualify the tank for use in accordance with the current Design Approval Certificate or certificate of construction (AAR Form 4–2), as appropriate. These documents must be maintained for the life of the tank car. Each owner of a specification tank car must retain the documents throughout the period of ownership of the specification tank car and for one year thereafter. Upon a change of ownership, the Design Approval Certificate or certificate of construction (AAR Form 4–2), as applicable, and all applicable documents as prescribed in Section 1.3.15 of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter) must be provided to the new tank car owner. A tank car facility performing work on the car may retain copies of relevant records in accordance with § 179.7(b)(12).

(b) * * *

(8) The unique code (station stencil) identifying the facility; and

(9) Tank car facility registration number(s) (see § 107.905 of this chapter).

■ 138. In Appendix D to part 180, revise the second paragraph to read as follows:

Appendix D to Part 180—Hazardous Materials Corrosive to Tanks or Service Equipment

* * * * *

While every effort was made to identify materials deemed corrosive to the tank or service equipment, owners and operators are cautioned that this list may not be inclusive. Tank car owners and operators are reminded of their duty to ensure that no in-service tank will deteriorate below the specified minimum thickness requirements in this subchapter. See § 180.509(f)(3). In addition, FRA states a tank car owner must designate an internal coating or lining appropriately based on its knowledge of the chemical and not rely simply on this list. Regarding future thickness tests, this list may also be modified based on an analysis of the test results by the car owner or the Department of Transportation.

* * * * *

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William S. Schoonover,

Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration.

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