FEDERAL REGISTER

Vol. 77 Monday,
No. 122 June 25, 2012

Part II

Department of Transportation

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, et al.
Hazardous Materials: Incorporating Rail Special Permits Into the Hazardous Materials Regulations; Final Rule

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 174, 179, and 180

[Docket No. PHMSA–2010–0018 (HM–216B)]

RIN 2137–AE55

Hazardous Materials: Incorporating Rail Special Permits Into the Hazardous Materials Regulations

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: The Pipeline and Hazardous Materials Safety Administration is amending the Hazardous Materials Regulations to incorporate provisions contained in certain widely used or longstanding rail special permits that have general applicability and established safety records. Special permits allow a company or an individual to package or ship a hazardous material in a manner that varies from the regulations provided an equivalent level of safety is maintained. Incorporating the special permits discussed in this rulemaking will provide users of the regulations with wider access to the regulatory flexibility offered in these special permits, eliminate the need for numerous renewal requests, reduce paperwork burdens, and facilitate commerce while maintaining an appropriate level of safety. This rulemaking will also respond to two petitions for rulemaking, P–1497, concerning the use of electronic shipping papers, and P–1567, concerning the removal of the Association of American Railroad's AAR–600 portable tank program for previously adopted standards that meet or exceed the AAR–600 requirements.

DATES: *Effective date:* July 25, 2012.

Voluntary compliance date: PHMSA is authorizing voluntary compliance beginning June 25, 2012.

Incorporation by reference date: The incorporation by reference of certain publications listed in this rule was previously approved by the Director of the Federal Register on October 1, 2003 and March 16, 2009.

FOR FURTHER INFORMATION CONTACT: Eileen Edmonson, Standards and Rulemaking Division, Office of Hazardous Materials Safety, (202) 366–8553, Pipeline and Hazardous Materials Safety Administration (PHMSA), or Karl Alexy, Office of Safety Assurance and Compliance, (202) 493–6247, Federal Railroad Administration (FRA), 1200 New Jersey Avenue SE., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

I. Background

A. Notice of Proposed Rulemaking

The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) issued a notice of proposed rulemaking (NPRM) on August 18, 2011 [76 FR 51324] under Docket No. PHMSA 2010–0018 (HM–216B) to amend the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) to incorporate requirements based on seven existing special permits for transportation by railroad issued by PHMSA under 49 CFR Part 107, Subpart B (§§ 107.101 to 107.127). This NPRM was part of an ongoing review by PHMSA to identify widely used and longstanding special permits with established safety records for adoption into HMR. The numbers of the special permits considered for incorporation in the NPRM are DOT–SP: 7616, 9388, 11184, 12095, 12905, 14333, and 14622. PHMSA identified these special permits as implementing new technologies and operational techniques that achieve a safety level that corresponds to or exceeds the safety level required under the HMR. In addition, we also addressed two petitions for rulemaking in the NPRM: P–1497 and P–1567. P–1497 pertains to the use of electronic shipping papers; P–1567 pertains to the removal of the AAR–600 portable tank program for previously adopted standards that meet or exceed AAR–600 requirements.

Based on the aforementioned special permits and petitions for rulemaking, we subsequently proposed amendments to the HMR to:

(a) Establish an alternative tank car qualification program;

(b) Permit the electronic transmission of shipping paper information;

(c) Permit straight threads in the clean out and/or inspection port openings of a Department of Transportation (DOT) Specification 110A500W multi-unit tank car tank;

(d) Permit alternative start-to-discharge pressure requirements for certain DOT Specification 105J500W tank cars containing chlorine;

(e) Permit alternative pressure relief requirements for pressure relief devices for DOT Specification 105J300W tank cars containing certain flammable liquids;

(f) Permit certain DOT and Association of American Railroad (AAR) specification tank cars with stainless steel identification plates to have their specification and other required information stamped on the identification plate instead of the tank car head provided certain requirements are met;

(g) Permit liquefied anhydrous ammonia gas or ammonia solution to be measured by a metering device when loaded into a tank car as an alternative to measuring the cars by weight;

(h) Revise § 179.13(b) to require that rail tank cars with a gross weight that exceeds 263,000 but not 286,000 pounds containing poisonous-by-inhalation (PIH) materials must be approved for use by the FRA's Associate Administrator for Railroad Safety; and

(i) Eliminate use of the AAR 600 program concerning the FRA's approval of bulk packagings in container-on-flat-car (COFC) or trailer-on-flat-car (TOFC) service that is incorporated into § 174.63(c)(2).

B. Comments on the NPRM

The comment period for the NPRM closed on October 17, 2011. Thirteen entities provided comments in response to the NPRM. Most of the commenters support the proposals in the NPRM, while several commenters request modifications to the proposed regulations for clarity. Still others suggest certain proposals be eliminated altogether from consideration. PHMSA has summarized these comments in the ''Section-by-Section Review'' discussion of this rulemaking. Specifically, PHMSA received comments from the following:

1. Alltranstek LLC (Alltranstek)
2. American Railcar Leasing LLC (ARL)
3. Association of American Railroads (AAR)
4. The Chlorine Institute
5. CIT Group
6. Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA)
7. Dangerous Goods Advisory Council (DGAC)

8. The Dow Chemical Company (Dow)
9. GATX Corporation (GATX)
10. International Vessel Operators Dangerous Goods Association (IVODGA)
11. Midland Rail Services, LLC (Midland)
12. Union Pacific Railroad (UPC)
13. Union Tank Car Company (UTC)

II. Amendments Adopted in Final Rule

The following is a summary of the amendments PHMSA is adopting in this final rule. This list does not include minor editorial changes.

- The reference to § 174.63 is removed from the AAR Manual of Standards and Recommended Practices M–1002 listing in § 171.7.
- Definitions for ''Electronic data interchange'' and ''Train consist'' are added to § 171.8.
- Requirements for electronic shipping papers, electronic data interchange (EDI) standards, and electronic signature certification for hazardous material rail shipments are added to §§ 172.201(a)(5), 172.202(b), 172.204(a)(3)(ii), and (d)(3).
- Requirements for verbal certification of shipping papers for rail hazardous materials shipments are added to § 172.204(a)(3)(i) and (d)(3).
- The emergency response telephone number requirements are revised to clarify that telephone numbers outside the United States (U.S.) must be accompanied by the international access code or the plus sign, country code, and city code, as appropriate, needed to complete the call.
- Section 172.604(a)(3)(ii) is revised to clarify that the emergency response telephone number must be entered on the shipping paper in the manner prescribed in § 172.604(b).
- Provisions to allow tank cars and multi-unit tank cars to be loaded with liquefied anhydrous ammonia gas or ammonia solution through the use of a metering device are added to § 173.314(e).
- Section 173.314(k)(2) is added to permit DOT 105J500W tank cars equipped with combination safety relief valves with a start-to-discharge pressure of 360 psi to be used as authorized packagings for inhalation hazard zone B Chlorine gas.
- Section 174.63(c)(2) is revised to remove the requirement for tank cars in container-on-flat-car (COFC) or trailer-on-flat-car (TOFC) service from complying with the AAR 600 program in the AAR Specification for Tank Cars, ''Specifications for the Acceptability of Tank Containers.''
- Section 179.13(b) is revised to specify FRA approval of tank cars carrying poisonous-by-inhalation materials with a gross weight on rail up to 286,000 pounds.
- Requirements to permit tank car information to be stamped on permanent identification plates placed on opposite ends of a tank car instead of stamped into the tank's head are added to §§ 179.24, 179.100–20, 179.200–24, 179.201–10, and 179.220–25.
- Requirements to permit straight threads to be used instead of tapered threads in the clean-out/inspection ports of DOT Specification 110A multi-unit tank car tanks are added to § 179.300–13.
- The applicability provisions for 49 CFR Part 180 are revised to include Part 174 in § 180.501(a).
- Section 180.501(b) is added to require tank car owners to develop written tank car qualification procedures required under § 179.7 for their tank car employees, and to require tank car facilities to incorporate an owner's qualification program in the facility's quality assurance program.
- New paragraph (d) is added to § 180.501 to require that documents must be made available upon request to credentialed FRA employees or authorized U.S. Department of Transportation employees.
- Definitions from the former Tank Car Qualification Program (TCQ–1) concerning tank car qualification and maintenance, some with revisions, are added to § 180.503.
- Paragraph § 180.507(b) is removed. This paragraph was added to the HMR in an earlier rulemaking to require tank cars authorized to transport cryogenic liquids under an exemption (DOT–E) issued before October 1, 1984, to remove the earlier exemption number, stamp the tank car with the appropriate Class DOT–113 specification, and mark the tank car with the applicable DOT–E number. PHMSA proposed in the NPRM to replace the DOT–E number marked on the tank with the applicable DOT–SP number. However, the FRA has determined most of the tank cars subject to this paragraph have been modified, that one special permit of this type may exist, and that the tank cars authorized under that special permit have already been marked with the current DOT–SP number. Therefore, FRA has determined the need for this section no longer exists.
- Section 180.509 is amended to add conditions and frequencies of inspections and tests for qualifying a tank car that were authorized under former TCQ–1. These provisions:
  - Require that reports of all inspections and tests be sent to the tank car owner, and for a coating or lining, to the coating or lining owner;
  - Permit the FRA Associate Administrator for Railroad Safety to declare a tank car in unsafe operating condition based on the existence of an objectively reasonable and articulable belief instead of a probable cause;
  - Simplify the ''Allowable Shell Thickness Reduction'' table for a tank car's service life thickness allowance;
  - Require the owner of a tank car coating or lining to ensure the adequacy and compatibility of the coating or lining for the material being offered for transport and to establish and maintain a record of service of the coating or lining and commodity combination, including an appropriate inspection interval that is not to exceed eight years, unless evidence or scientific analysis can be provided that supports a longer inspection interval;
  - Require tank car owners to ensure a tank car's service equipment is qualified at least once every 10 years; and
  - Clarifies that the Associate Administrator for Railroad Safety must approve alternative inspection and test procedures or intervals based on a damage-tolerance analysis or service reliability assessment.
- The introductory paragraph of § 180.511 is revised to require the representation of a qualified tank car's inspections and tests to be marked on the tank in conformance with § 180.515.
- Section 180.511(d) is revised to include a requirement that the safety system inspection must also show no indication of a defect that may reduce the reliability of tank car before its next inspection and test.
- Section 180.511(g) is revised to require a hydrostatic test for the inner tank of a DOT Class 115 specification tank car.
- Section 180.511(h) is added to establish acceptable results for inspection and test requirements for service equipment.
- Section 180.513 is revised to require that, in addition to having to comply with the AAR's Specifications for Tank Cars, a tank car facility making repairs, alterations, conversions, or modifications to a tank car must comply with the tank car owner's requirements, and must obtain the permission of the equipment owner before performing work that would affect the alteration, conversion, repair, or qualification of the owner's equipment. Also, after this work is performed, the tank's service equipment must successfully pass the leak test prescribed in § 180.509(j).
- The tank car marking requirements prescribed in § 180.515(a) are revised to

establish that dates displayed on a consolidated stencil take precedence over dates that are modified and not stenciled, pursuant to interval adjustments for service equipment, linings, and granted alternative inspection intervals.

- Section 180.515(b) is revised to specifically list converted DOT 105, 109, 112, 114, and 120 specification tank cars as being required to have new specification and conversion date markings.
- Section 180.515(c) is revised to state the installation date of a reclosing pressure relief device on a tank car is the test date the device is ''qualified,'' instead of ''pressure tested,'' within six months from the date it was installed and protected from deterioration.
- Section 180.517(a) establishes that the builder's signature on a tank car's certificate of construction and marking of the tank car with the tank's specification represent that all the appropriate inspections and tests were performed successfully and the tank is qualified for use.
- Section 180.517(b) is revised to require that the written report of a tank car's qualification inspections and tests must be provided in a common readable form to FRA upon request, and must include the tank car reporting mark and number, specification, name of the inspector, and the unique code (station stencil) identifying the facility.
- 49 CFR Part 180, Subpart D, is added to include materials the FRA has determined may, under certain conditions, corrode carbon steel tanks or service equipment at a rate that may reduce their reliability.

III. Section-by-Section Review

The following is a section-by-section review of the amendments adopted in this final rule.

Part 171

Section 171.7

Section 171.7 addresses industry standards and other reference materials that are incorporated by reference into the HMR. In the NPRM, we proposed to remove the reference to § 174.63 under the AAR Manual of Standards and Recommended Practices, M–1002, (December, 2000) because we proposed to discontinue use of the AAR 600 program of the AAR's Specification for Tank Cars, entitled ''Specifications for the Acceptability of Tank Containers,'' in § 174.63(c)(2). PHMSA received no comments on the specific proposed language change to this section. Therefore, in this final rule, this language is being adopted as proposed in the NPRM.

It should be noted that several commenters object to PHMSA maintaining this edition in the HMR, stating that many of these standards are not applicable to the material being regulated or are obsolete compared to the AAR's 2007 edition of this publication. Several commenters request that PHMSA revise the HMR in this final rule to permit current and future editions of AAR M–1002 to be incorporated into the HMR when they are published.

Before incorporating any organization's technical guidance into the HMR as a material incorporated by reference, PHMSA and the appropriate modal agency staff conduct an extensive technical review of the document to determine if the standards it establishes are safe and in conformance with the HMR. In addition, in such instances, federal agencies must comply with the other requirements concerning incorporating materials by reference, such as soliciting public comment on their incorporation as required under the Administrative Procedure Act, and completing procedures for their incorporation issued by the **Federal Register**. Therefore, PHMSA is denying this request. However, we will consider the 2007 or later edition of the AAR's M–1002 for possible incorporation into the HMR in a future rulemaking.

Section 171.8

Section 171.8 provides definitions and abbreviations used throughout the HMR. In the NPRM, we proposed to add a definition to indicate that a ''train consist'' means a written record of the contents and location of each rail car in a train. Our intention was to provide a definition for a provision proposed in § 172.204(a)(3)(i) to permit a carrier to record acknowledgment on a shipping paper that will accompany a rail hazardous material shipment or other document, like a train consist, that a correct, complete shipping description was received verbally over the telephone, and is in conformance with § 174.24. Commenters state that although a train consist is used to assist rail carriers, it is not an official shipping paper document, and that § 174.24 refers only to shipping papers. We agree. Therefore, we are adopting this proposed definition in § 171.8, but are not adding this phrase to § 172.204(a)(3)(i).

Part 172

Section 172.201

Section 172.201 specifies requirements for the preparation and retention of shipping papers used to describe hazardous materials in transportation. In the NPRM, we proposed minor editorial changes to clarify § 172.201(a)(2), and proposed to revise § 172.201(a)(5) to add provisions prescribed in DOT–SP 7616 for the acceptance, availability, forwarding, verification, and retention of electronic shipping paper information transmitted by EDI for the development of shipping papers used to transport hazardous materials by railcar. We also proposed requirements concerning the generation of residue shipping papers by carriers.

Most of the commenters support amending the HMR to permit EDI transmission of shipping paper information. The DGAC states that, while EDI is generally well-understood without a definition, if retained in the final rule, PHMSA should move the last two sentences of proposed § 172.201(a)(5) into a definition of EDI and place it under general definitions prescribed in § 171.8 so that EDI's use is clearly not limited to rail transportation. The two sentences in the NPRM state:

> For the purpose of this section electronic data interchange (EDI) means the computer-to-computer exchange of business data in standard formats. In EDI, information is organized according to a specific format (electronic transmission protocol) agreed upon by the sender and receiver of this information, and transmitted through a computer transaction that requires no human intervention or retyping at either end of the transaction.

PHMSA and FRA agree that this commenter's remarks have merit. We also believe referring the regulated public to the existence of this new definition in § 171.8 instead of § 172.201(a)(5) will assist them with correctly applying this requirement. Therefore, PHMSA will eliminate the phrase ''For the purposes of this section'' from the first sentence of § 172.201(a)(5), remove the last two sentences of that section and place them in a new definition for EDI under § 171.8, and add regulatory text to § 172.201(a)(5) to refer the user to the new location of the EDI definition.

In the NPRM, PHMSA proposed to require under § 172.201(a)(5)(iii) that a carrier that generates a shipping paper for tank cars containing residue using information from the previous loaded movement of a hazard materials packaging must ensure the description of the material that accompanies the shipment complies with the offerer's request. The DGAC assumes in all cases the carrier would have to comply with the offerer's instructions regardless of how the information is transmitted and recommends PHMSA delete this

provision because it is unnecessary. PHMSA and FRA disagree with the commenter that in all cases the carrier will comply with the offerer's instructions when generating a residue shipping paper based on a previous loaded hazardous materials package. PHMSA and FRA believe, instead, that the implementation of this provision will make carriers aware of their responsibilities to properly describe and class a residue hazardous material in transportation. Therefore, PHMSA is denying this request.

In the NPRM, PHMSA proposed to require under § 172.201(a)(5)(v) that an electronic shipping paper issued for the rail transport of hazardous materials under § 172.201(a)(5) be retained for the same amount of time and in the same manner required for other hazardous materials shipping papers as prescribed in § 172.201(e). The DGAC requests the removal of the shipping paper retention proposal for EDI shipping papers under § 172.201(a)(5)(v) because shipping papers issued under § 172.201 must be retained in conformance with § 172.201(e). The DGAC also notes that § 172.201(e) currently requires the shipper to retain a copy of the shipping paper from the time the shipment is offered until at least two years after issuance, and § 174.24 requires rail carriers to retain the shipping paper for at least one year. PHMSA and FRA agree with the commenter that shipping papers issued under § 172.201 are subject to the shipping paper retention requirements prescribed in § 172.201(e); therefore, PHMSA will remove § 172.201(a)(5)(v).

In the NPRM, PHMSA proposed to revise § 172.201(a)(5)(i) to require that electronic shipping paper information provided under § 172.201(a)(5) must be made available to the shipper and carrier at all times the material is in transportation, and that the carrier must have and maintain a printed copy of this information until delivery of the hazardous material is complete. Several commenters opposed the proposed requirement in § 172.201(a)(5)(i). The AAR suggested the requirement be changed to require that the shipping paper information ''be available to the shipper and carrier at all times during transport'' and a printed copy accompany the shipment until delivery is complete. The IVOGDA requests that PHMSA permit immediate access to hazard communication information for all those involved in transportation, including emergency responders, by providing existing EDI transmission methods to these individuals and eliminate the requirement that paper documents be transmitted with these shipments in keeping with the Paperwork Elimination Act, which allows and encourages:

> the acquisition and use of information technology, including alternative information technologies that provide for electronic submission, maintenance, or disclosure of information as a substitute for paper and for the use and acceptance of electronic signatures. 44 U.S.C. 3504(a)(1)(B)(vi).

The IVOGDA interprets the Act as stating electronic signatures ''are required to be compatible with standards that are generally used in commerce,'' industry, and by State governments. The IVOGDA also interprets the Act as stating electronic signatures ''may not inappropriately favoring [sic] one industry or technology'' over another and questions if the NPRM's application of this provision to rail transport only complies with the Act. The DGAC and COSTHA also support permitting the use of EDI in all modes of transport. In addition, the IVOGDA states the Act provides that electronic records, signatures, or other forms of electronic authentication ''shall not be denied legal effect, validity, or enforceability when such records are in electronic form.'' To comply with the Act, the IVOGDA requests PHMSA: Remove the word ''rail'' in §§ 172.201(a)(5), 172.202(b), 172.204(a), (a)(3), and (d)(3); revise the proposed language in § 172.205(a)(5)(i) that proposes to require that the carrier have and maintain a printed copy of the shipping paper ''until delivery of the hazardous material on the shipping paper is complete;'' to adopt a provision to require the carrier to make a copy of the shipping document(s) available upon request; and allow those complying with ICAO Technical Instruction and IMDG Code EDI regulations to produce these documents upon request. Several commenters note that the UN Model Regulations, ICAO Technical Instructions, and International Maritime Organization Dangerous Goods Code, and UN ADR all recognize the use of EDI-generated shipping papers that are issued and retained electronically only as an acceptable alternative to paper documents. IVOGDA also notes the encrypted coding of an EDI shipping paper adds an additional layer of security that helps to ''conceal the presence of high value cargoes that might be the target of piracy or hijacking during transport.'' IVOGDA further notes permitting the use of EDI shipping papers in an electronic format only promotes environmental conservation by supporting a paperless operation, complies with the provisions of the Government Paperwork Elimination Act (44 U.S.C. 3504), and helps companies distribute their newest products rapidly and maintain inventory throughout the world. Union Pacific states it maintains its EDI shipping paper electronically in a manner that can be printed as received or in a format that conforms to the requirements in the HMR, and recommends the following wording be added to § 172.201(a)(5)(i):

> When the information applicable to the consignment is provided under this requirement, the information must be available to the shipper and carrier at all times during transport. When a paper document is produced, the data must be presented as required by this subpart.

In addition, the DGAC notes that DOT–SP 7616 permits these documents to be retained electronically by the carrier but the NPRM proposed that a written copy of the shipping paper must accompany the shipment. The DGAC requests that if electronic storage of the EDI shipping paper be permitted by the HMR, if the format of the electronic data is agreed [to] by both parties, and the data can be used to produce a printed shipping paper document, no further requirement concerning the format of the computer data for EDI shipping papers is needed.

DOT–SP 7616 authorizes a rail freight carrier to accept hazardous materials shipping paper information by voice communication through the telephone or through EDI for use in the creation of a physical shipping paper that accompanies the shipment and that is retained by the shipper and carrier for one year from the date of shipment. DOT–SP 7616 also authorizes a variance in the shipping paper certification requirement for EDI shipping papers that allows for an abbreviated certification statement or the completion of a field on a form to represent the completed certification. DOT–SP 7616 does not include an exception that permits a rail hazardous material shipment to be transported without a printed copy of the applicable shipping paper. Further, DOT–SP 7616 requires rail shippers of hazardous materials that use EDI shipping papers to provide the rail staff with a copy of the shipping papers, which it states can include waybills, train consists, or other similar documents (see DOT–SP 7616, paragraph 8(d)). PHMSA and FRA are aware of no adverse consequences or incidents have been reported concerning hazardous materials shipments using shipping papers generated with telephonic or EDI transmitted information.

One purpose of a printed shipping paper for hazardous materials

shipments is to provide emergency responders with timely and accurate information needed to respond to a possible hazardous materials release. PHMSA and FRA are aware that emergency responders do not have devices that allow them to access EDI shipping papers that are electronically retained. However, we are aware that emergency responders typically acquire this information from shipping papers located in the locomotive or from train crew consists. If these sources are not available, emergency responders call the railroad and request the train's consist. Emergency responders typically have had timely access to emergency response information using one of these methods. Historically, PHMSA and FRA have found delays in retrieving shipping paper information at the site of a rail hazardous materials incident can contribute to increased risks associated with the management and containment of the hazards associated with these materials. Further, rail incidents often occur in remote locations and/or on difficult terrain, which may further delay the arrival of emergency responders to an incident site. A physical copy of a shipping paper at the scene of an incident helps emergency responders respond quickly and accurately when trying to mitigate the effects of a hazardous materials release. As a result, PHMSA and FRA disagree with the position presented by the IVOGDA that a printed copy of the information on an electronic shipping paper does not need to accompany a rail hazardous materials shipment, and PHMSA is denying this request. However, PHMSA will continue to investigate this issue, and may address it in a future rulemaking.

Several commenters request the proposed requirements for EDI be revised to make them harmonious with international regulations for this activity. Specifically, the IVOGDA, DGAC, and COSTHA request that PHMSA allow the use of EDI under the HMR to promote the accurate and timely transmission of these documents and to reduce the difficulties and delays that can occur in all modes of transport, both international and domestic, when shipping documents are not harmonious. While it is always PHMSA's goal to harmonize the HMR whenever safely possible with international requirements, we did not propose this revision in the NPRM. Therefore, it is outside the scope of this rulemaking, but we may consider it in a future rulemaking.

The IVOGDA also requests PHMSA provide regulations that specify the transfer container responsibilities from one carrier to another within the same mode of transport or between modes. In addition, the IVOGDA notes Section 5.4 of the United Nations Recommendations for the Transport of Dangerous Goods (UN Recommendations) includes in all its references to dangerous goods transport documents a provision to allow information by the use of electronic data processing and EDI techniques, and that similar provisions are located in Chapter 4 of the International Civil Aviation Organization (ICAO) Technical Instructions for the Transport of Dangerous Goods (Technical Instructions), and Chapter 5.4 of the International Maritime Dangerous Goods Code (IMDG Code). PHMSA did not propose in the NPRM to specify the transfer container responsibilities between carriers within the same or different modes of transport; therefore, it is outside of the scope of this rulemaking. However, PHMSA may consider this issue in a future rulemaking.

Several commenters oppose the requirement proposed in § 172.201(a)(5)(ii) that an EDI shipping paper contain a full or abbreviated certification. These commenters state the special permit for these transmissions permitted the name of the principal person, etc., for the shipment to appear in a field designed to represent the certification as a method that worked well and no purpose would be served by requiring a printed version of the certification. A few commenters request that PHMSA add a provision to § 172.204 to clarify that an authorized signature in a designated field on the form is sufficient to denote a completed shipper's certification. The DGAC also questions the abbreviated representation of a shipper's certification may not be appropriate for some hazardous materials packages, such as portable tanks that are interlined to other transport modes. This commenter requests the abbreviated certification discussed earlier be limited to rail transport only.

One of the basic HMR requirements for a shipping paper is that the person taking responsibility for the shipment agrees by signing the certification statement that the shipment has been prepared properly for transportation. PHMSA is concerned designating a blank signature block on a shipping paper as representing the shipper's certification without the shipper's certification statement, and deeming the shipping paper prepared in this manner as certified when the block is filled in with the name of the shipper or their representative, may not make shipper fully aware of the responsibilities they are agreeing to under this requirement. Omitting this statement may also make it unclear to the emergency responder or enforcement official who is taking responsibility for the compliance of the shipment with the HMR. However, PHMSA and FRA are also aware that under the special permit shippers were permitted to use this method with no adverse consequences or incidents reported. Therefore, we agree with the position of the commenters and will revise the regulatory text to require that only for EDI shipping papers the shipper's certification may be represented by completing a specific field for this purpose in the manner prescribed in DOT–SP 7616.

In § 172.201(a)(5) of the NPRM, PHMSA and FRA also proposed to add language to regulate the transmission of shipping papers by facsimile. The DGAC and Union Pacific request that since the provision for transporting these documents electronically by facsimile is a common occurrence and was not provided for in the special permit, this provision should be removed from the amended requirements. PHMSA and FRA disagree with the commenters' request to eliminate the provision to allow shipping papers to be transmitted by facsimile into the HMR because this was not specifically mentioned in the special permit being incorporated. As the commenters state, sending shipping papers by facsimile is a common practice that is currently not provided for under the HMR, but this type of transaction does qualify as another form of electronic transmission of a shipping paper. PHMSA and FRA believe establishing minimal HMR requirements for shipping paper facsimile transmissions based on current industry practices will have little effect on the regulated public while clarifying that transmission of shipping papers by this method is a regulated activity. In addition, this requirement safeguards this transaction by providing modest guidance how these materials are to be processed. Therefore, PHMSA is incorporating provisions under §§ 172.201(a)(5). PHMSA is also incorporating provisions to transmit shipping papers by facsimile under §§ 172.202, 172.204 and 172.604 of the HMR.

Section 172.202

Section 172.202 specifies requirements for the description of hazardous materials on shipping papers. In the NPRM, we proposed to add a third sentence to paragraph (b) to specify that shipping descriptions for

hazardous materials offered or intended for transportation by rail that contain all of the information required in subpart C and that are formatted and ordered in accordance with recognized electronic data interchange standards and, to the extent possible, in the order and manner required by this subpart are deemed to be in compliance with paragraph (b) of this section. Commenters did not provide remarks on this proposed requirement. Therefore, PHMSA is adopting this language as proposed.

Section 172.204

Section 172.204 specifies requirements for a hazardous material shipper's certification on a shipping paper. In the NPRM, PHMSA proposed to revise § 172.204(a), (a)(3), and (d)(3) to incorporate provisions currently authorized under DOT–SP 7616, and to permit the shipper's certification for rail hazardous materials shipments to be transmitted verbally by telephone or electronically by computer, as requested by Petition No. P–14333.

As discussed earlier in this final rule under section-by-section heading ''Section 171.8,'' PHMSA and FRA proposed in the NPRM to require the verbal acknowledgement of the receipt of shipping paper information by telephone to be recorded on the shipping document or in a separate record, such as a train consist. Union Pacific requests proposed § 172.204(a): (1) Be revised to add the words telephonically or electronically to clarify the method in which these documents will be received, and (2) change ''train consist'' to ''waybill'' in proposed § 172.204(a)(3)(i) because the waybill is the singular record of a hazardous material shipment for the duration of the shipment and the shipper's certification is never placed on the train list. Some other commenters also request that PHMSA replace the wording ''train consist'' prescribed in § 172.204(a)(3)(i) with ''waybill'' because waybills, and not train consists, are the actual shipping document. PHMSA and FRA acknowledge that verbal communication of a shipper's certification can be received either by telephone or through a computer using software designed to allow it to operate like a telephone. PHMSA also agrees with commenters that adding wording that explains how the shipping paper certification can be received either verbally by telephone or electronically may provide clarity for users of these regulations, and promote safety. PHMSA and FRA agree with these commenters that this final rule should not require the shipper's certification statement on a train consist, but also believe the definition of a ''train consist'' is useful. Therefore, as stated earlier in this preamble, PHMSA will replace the word ''train consist'' with ''waybill'' in § 172.204(a)(3)(i), and will also move the proposed definition of ''train consist'' from § 171.8 to § 180.503 of the HMR.

In § 172.204(a)(3)(i) of the NPRM, PHMSA proposed to incorporate regulatory text that would permit shipping paper information to be received via oral communication over the telephone. Several commenters support inclusion of regulations that would permit shipping paper information to be communicated by telephone or EDI. The Association of American Railroads (AAR) states transmitting shipping paper information by telephone is necessary when electronic systems do not work, although it acknowledges its members do not routinely rely on this method. Based on this experience, the AAR states verbal transmission of this information is a necessary option to provide rail shippers with information that will support efficient transportation. The AAR also states it is not aware ''of instances where safety has been undermined through the verbal transmission of shipping papers.'' Some commenters object to this proposal. These commenters state they believe errors could occur when recording shipping paper information orally through use of the telephone, the information provided by telephone cannot be verified, errors that could occur during this recording process could compromise the integrity of the hazardous materials information, and these, in turn, could compromise safety. These commenters also state the verbal transmission method does not create a sufficient record of the transaction. Others thought communicating this information by telephone is not necessary. COSTHA thought, as an alternative to verbal communication of shipping paper information, this rulemaking action should incorporate EDI transmission of shipping paper information for all modes of transport.

PHMSA and FRA are aware that electronic systems for conveying transport information are used predominantly in the hazardous materials industry but agree with commenters that there are times when electronic systems do not work correctly (e.g., a software malfunction or viral contamination) or do not work at all (e.g., during an electrical outage or weather emergency). Although these instances may be rare, when they occur back-up methods must be permitted to ensure safety. While the method of conveying this information verbally by telephone may create a greater opportunity for error than a properly working electronic form of transmission, historically, this method has proven to be effective because it has occurred without notable incident or error. In fact, PHMSA and FRA are aware that this method of transmitting shipping paper information has occurred without appreciable incident for decades. Therefore, PHMSA is denying the commenters' request to disallow the verbal transmission of shipping paper information by telephone and will incorporate these requirements as proposed in the NPRM.

Union Pacific also requests PHMSA delete proposed § 172.204(a)(3)(ii) and replace it with:

> *Electronic certification.* When transmitted electronically, by entering the name of the principal person, partner, officer, or employee of the offeror or his agent in a specific EDI field defined for that purpose.

Union Pacific states completing a field with the appropriate representative information will allow ''electronic verification that the shipment is certified,'' and adding abbreviated shipper's certification boiler language ''does not add value to the EDI message * * * and does not readily lend itself to verification in EDI processing.'' This commenter also requests PHMSA change the word ''may'' to ''must'' under proposed § 172.204(d)(3) to clarify that one of the individuals listed in that paragraph must certify the shipment. The HMR requires each shipper to sign a shipper's certification statement to attest that a hazardous materials shipping paper has been properly prepared in conformance with the HMR.

PHMSA and FRA agree with the commenter that requiring a field on an EDI transmitted shipping paper to represent a shipper's certification statement is more appropriate than requiring abbreviated shipper's certification language be added to a field on an EDI shipping paper. PHMSA and FRA also acknowledge that using this method of certification will harmonize the HMR's EDI requirements with how the shipper's certification is achieved for EDI shipping papers issued under the UN Recommendations, ICAO Technical Instructions, and IMDG Code. However, PHMSA and FRA believe the language in § 172.204(a)(3)(ii) should be revised to emphasize that by completing the signature field on an EDI document, the shipper is certifying that the document complies with the certification requirements prescribed in § 172.204(a). Therefore, PHMSA will

revise this section to emphasize that signing an EDI shipping paper is, in effect, also signing the shipper's certification statement.

The DGAC notes that the list of individuals who may sign the abbreviated EDI shipper's certification proposed in §§ 172.204(a)(3)(ii) and 172.204(d)(3) differs slightly from the list in existing § 172.204(d)(1) and requests for consistency that the list in § 172.204(d)(1) be used in the other two sections. PHMSA agrees with the commenters and, in this final rule, will make the lists in these three sections consistent.

Section 172.604

Section 172.604 specifies requirements for an emergency response telephone number. To address incomplete international phone numbers PHMSA is encountering on shipping paper documents, in the NPRM, we proposed to revise the introductory text in paragraph (a) to specify that, for telephone numbers outside of the U.S., sufficient information must be provided to complete the call. In its comments, the DGAC notes that PHMSA did not include a preamble discussion of its proposal to amend § 172.604(a), and states it would be helpful to further clarify that for numbers outside of the U.S., the complete number required is the number needed to compete the call within the U.S. The DGAC also states that this provision is already indicated in U.S. Variation 15 of the ICAO Technical Instructions. PHMSA added this provision to address incomplete international phone numbers it is encountering on shipping paper documents. PHMSA agrees with the commenter and will make this revision in this final rule.

In the NPRM, we also proposed to revise paragraph (a)(3)(ii) of § 172.604 to specifically require that the emergency response telephone number must be entered on a shipping paper in the manner prescribed in paragraph (b) of this section. Commenters did not provide remarks on this proposed requirement. Therefore, PHMSA is adopting this language as proposed.

Part 173

Section 173.314

Metering Device

Section 173.314 specifies the requirements for tank cars and multi-unit tank car tanks that transport compressed gases. In the NPRM, we errantly proposed to add § 173.314(e)(2) to permit any hazardous material to be loaded into a tank car through use of a metering device. The metering device technology is currently authorized under Special Permit DOT–SP 9388 for loading only ''UN 1005, Ammonia, anhydrous, 2.2 (non-flammable gas),'' or ammonia solution. Therefore, PHMSA is correcting the provisions in § 173.314(e)(2) concerning the use of a metering device for loading tank cars and multi-unit tank cars to apply to anhydrous ammonia or ammonia solution only.

PHMSA and FRA also proposed in the NPRM to require under § 173.314(e)(2)(i)(B)(4) that materials loaded into a tank car using a metering device must be visually inspected for any signs of damage for accessories inside the loading dome and under § 173.314(e)(2)(i)(D), after sitting loaded and undisturbed for 10 minutes, this same tank car must be given a final check for leaks prior to closing the dome cover and properly inserting the dome pin. Midland Rail Services, LLC, (Midland) says the wording ''loading dome'' and ''dome cover'' are not consistent with the terminology used in the rail and tank car industry. This commenter states the appropriate wording is ''protective housing'' and ''protective housing cover,'' respectively. This commenter also states the word ''accessories'' refers to devices listed in § 179.100–13, which are called ''service equipment'' under § 180.509(c)(3)(i), and requests PHMSA revise § 173.314(e)(2)(i)(B)(4) to state ''* * * service equipment inside the protective housing,'' and § 173.314(e)(2)(i)(D) to state ''* * * check for leaks must be conducted prior to closing protective housing cover * * * protective housing cover pin.'' PHMSA and FRA agree with the commenter. PHMSA will revise these sections, but to accommodate all the closure devices possible on a tank car, PHMSA is simplifying the regulatory text in proposed § 173.314(e)(2)(i)(D) to make it more general. Also, as discussed later in this preamble, PHMSA deleted § 173.314(e)(2)(i)(A) in response to a commenters request. Therefore, in this final rule § 173.314(e)(2)(i)(B) and (e)(2)(i)(D) are renumbered § 173.314(e)(2)(i)(A) and (e)(2)(i)(C), respectively.

In § 173.314(e)(2)(i) of the NPRM, PHMSA and FRA propose to permit DOT specification tank cars in commerce transportation that contain anhydrous ammonia liquefied gas or ammonia solution measured by a metering device when loaded into the tank. AllTranstek objected to several provisions concerning this proposal that we have discussed in the following paragraphs.

Personal Protective Equipment

In the NPRM, PHMSA proposed to require under § 173.314(e)(2)(i)(A) that employees loading and unloading ammonia liquefied gas or ammonia solution measured with a metering device wear personal protective equipment (PPE) designed to protect them from the dangers associated with these materials. The NPRM also proposed that the PPE used must comply with the Department of Labor's Occupational Safety and Health Administration, and the state and local laws where either of these tasks are being performed. AllTranstek requests PHMSA remove the language requiring PPE for employees performing this activity, stating that this equipment is regulated by the Department of Labor's Occupational Safety and Health Administration (OSHA). For improved safety, PHMSA has historically required the use of PPE throughout the HMR for those hazardous materials that pose a greater risk of damage to the employee or environment if released. However, PHMSA recognizes the authority of OSHA regulations concerning the management and use of PPE in the workplace and will, therefore, make this change by deleting § 173.314(e)(2)(i)(A) and renumbering in consecutive order the remaining paragraphs in § 173.314(e)(2)(i).

Pre-Trip Inspections

AllTranstek requests PHMSA remove language proposed in § 173.314(e)(2)(i)(B) requiring the undercarriage assembly of the tank to be inspected because this is a function of qualified and designated railroad employees and repair shops regulated under the FRA's Freight Car Safety Standards (49 CFR Part 215) and would require plant operators to obtain additional training on mechanical functions and condemning limits of operational railroad stock.

The FRA agrees with the commenter that § 215.13 is a FRA requirement that prescribes pre-departure inspections for freight cars before they are placed in a train and agrees that revising § 173.314(e)(2)(i)(B) to add this ''would require plant operators to obtain additional training on mechanical functions and condemning limits of operational stock.'' Section 215.13(c) permits a train crew member who is not an inspector designated under § 215.11 to conduct an inspection of ''imminently hazardous conditions'' listed in 49 CFR Part 215, Appendix D, ''that are likely to cause an accident or casualty before the train arrives at its destination.'' This section also states

''these conditions are readily discoverable by a train crew member in the course of a customary inspection'' of a tank car, a task that a train crew is normally trained to perform on a tank car after loading and before it is offered for transportation. Therefore, PHMSA will make this change by replacing all of proposed § 173.314(e)(2)(i)(B), which listed undercarriage and several other inspection requirements, with a more general statement to require that tank cars offered for transportation must comply with applicable government safety regulations, and, as discussed earlier in this preamble, renumber this section as § 173.314(e)(2)(i)(A).

AllTranstek also requests PHMSA remove proposed language from § 173.314(e)(2)(i)(B) concerning signage, setting brakes and wheel blocks, leak testing, and inspecting hoses, connections, valves, and accessories because these items are currently regulated in § 173.31(d) and (g), as part of the steps the HMR requires for examining a tank car before shipping.

The HMR require shippers to inspect a tank car prior to offering it for transportation (see § 173.31(d)) and that the tank car must not be offered for transportation if a nonconforming condition is identified unless a one-time approval is obtained (see § 174.50). The HMR also contains additional requirements for transloading tank cars under § 174.67. PHMSA has historically referenced § 173.31 in other sections of the HMR to promote safety. However, as stated earlier in this preamble, we agree with the commenter that the requirements proposed for § 173.314(e)(2)(i)(B) are not needed because they are covered under other federal regulations. Therefore, PHMSA will make this change to the regulatory text where it now appears in as § 173.314(e)(2)(i)(A).

In addition, AllTranstek opposes language proposed in § 173.314(e)(2)(i)(C) to record defects and certify inspection and completion of loading and unloading procedures because offerers cannot offer defective packages into transportation and operators must follow written operating procedures under OSHA's process safety management standards prescribed in 29 CFR 1910.119(f).

PHMSA and FRA agree that shippers must inspect a tank car prior to offering it for transportation and that the tank car must not be offered for transportation if a nonconforming condition is identified unless a one-time approval is obtained. However, we believe requiring shippers to record defects and certify inspection and completion of their loading procedures is appropriate to track defects in their tank cars so they can identify defect or damage trends and make needed adjustments to equipment specification or maintenance procedures to eliminate them. Also, certifying the inspection and loading and unloading procedures for metered loads is important for determining the cause of non-accidental releases. Therefore, PHMSA is denying this request. However, due to the renumbering of the paragraphs discussed earlier in this preamble, the language that appeared in proposed as § 173.314(e)(2)(i)(C) now appears in § 173.314(e)(2)(i)(B).

Because of the increased accuracy and reliability of flow meter technology in the magnetic gauging device, AllTranstek requests that PHMSA remove the proposed requirement to measure one out of every 10 tank cars loaded with a magnetic gauging device to verify the load amount since this is also proposed in the NPRM under § 173.314(e)(2)(i) and (e)(2)(ii). AllTranstek also requests that PHMSA consider removing recordkeeping language from liquefied gases delivered through by meter because the HMR does not require this type of elaborate recordkeeping for any other hazardous material loaded into a packaging.

Although PHMSA and FRA agree with the commenter that flow meters are becoming increasingly accurate, we still believe an alternative form of measurement is necessary to confirm the safety of this type of loading operation for anhydrous ammonia or ammonia solution. Further, the NPRM proposed this requirement in § 173.314(e)(2)(ii) only. Therefore, PHMSA is denying this request.

Water Capacity Marking

In the NPRM, PHMSA and FRA proposed to require tank car markings to be stamped on tank car identification plates instead of the tank car head in several sections of the HMR provided certain requirements are met. Midland requests PHMSA revise § 173.314(e)(2)(iii)(H) to state ''Water capacity of tank in pounds'' instead of proposed ''Water capacity of tank car (pounds)'' for uniformity with industry and 49 CFR language. Midland also states current § 179.22 and AAR M–1002, Appendix C, do not require a pressure tank car to be marked and/or stenciled with the water capacity of the tank in pounds. This commenter states PHMSA removed stenciling and stamping from the HMR, formally prescribed in §§ 179.100–21(b) and 179.100–20, several years ago when it replaced outage and filling limits for tank cars based upon ''maximum permitted filling densities,'' formally under § 173.314(c), with ''outage and filling limits'' based on the tank's volumetric capacity, currently prescribed in §§ 173.314(c) and 173.24b(1), and not its water weight capacity. Further, Midland states the tank identification plate prescribed in paragraph 4.0 of AAR M–1002, Appendix C, does not require showing the water weight capacity of a tank car.

The following five compressed gases are loaded into a tank car based on allowable filling densities:

UN 1017, Chlorine, 2.3 (poisonous gas), 5.1 (oxidizer), 8 (corrosive)
UN 1053, Hydrogen sulfide, 2.3, 2.1 (flammable gas)
UN 1069, Nitrosyl chloride, 2.3, 8
UN 1079, Sulfur dioxide, 2.3, 8
UN 2191, Sulfuryl fluoride, 2.3

The other compressed gases are loaded to a filling limit. ''Maximum permitted filling density'' is a subset of the term ''outage and filling limits,'' which is prescribed in § 173.24a(d) for non-bulk packages and in § 173.24b(a) for bulk packages. Further, the HMR require the stamping or stenciling of a tank car's water capacity in pounds under §§ 179.201–10(a) and 179.400–25(c), and as criteria for tank car inspections and reports in the ''Record of Hydrostatic Test Table'' under § 179.500–18(c). PHMSA did not propose under § 173.314(e)(2)(iii)(H) of the NPRM to replace the proposed term ''Water capacity of tank car (pounds)'' with ''Water capacity of tank in pounds,'' but agree with the commenter that the use of these two terms may be confusing to some HMR users. PHMSA and FRA also agree with the commenter that the term ''water capacity of tank in pounds'' is more consistent with AAR M–1002 than a tank car's water weight capacity proposed in § 173.314(e)(2)(iii)(H). Therefore, for clarity and consistency PHMSA is revising the term ''Water capacity of tank car in pounds'' to read ''Water capacity of tank in pounds'' in § 173.314(e)(2)(iii)(H). We may review making this change in additional sections in a future rulemaking. In addition, PHMSA recognizes that each facility may have a different specific gravity at a reference temperature. Therefore, PHMSA has revised § 173.314(e)(2)(iii)(J) to remove ''(@ 105 °F–0.5796 and @ 115 °F–0.5706)'' and replace it with the phrase ''at the reference temperature.'' PHMSA further recognizes that the HMR ensures compatibility with international transportation standards by expressing most units of measure in International System or metric units (see § 171.10);

therefore, PHMSA has revised § 173.314(e)(2)(iii) to include metric units of measure.

Part 174

Section 174.63

Section 174.63 specifies requirements for the portable tanks, IM portable tanks, intermediate bulk containers (IBCs), Large packagings, cargo tanks, and multi-unit tank car tanks. In the NPRM, we proposed to discontinue the AAR–600 requirement in the HMR for portable tanks because PHMSA adopted standards for portable tanks in container-on-flat-car (COFC) or trailer-on-flat-car (TOFC) service under other sections of the HMR. The Gold Tank Inspection Service, Inc., petitioned PHMSA (P–1567) to discontinue the AAR–600 program because, in addition to the new HMR standards, the HMR no longer permits portable tanks to be built to the AAR 600 standard unless they are DOT Specification 60 and International Standard 1496–3 portable tanks. Further, after January 1, 2010 (see § 171.14(d); Docket No. RSPA–2000–7702 (HM–215D), 66 FR 33316; and amended, 67 FR 15736), the HMR requires all portable tanks to meet or exceed AAR 600 requirements, and the AAR 600 does not cover portable tank requirements. Commenters did not provide remarks on this proposed requirement. However, PHMSA realizes in attempting to eliminate the AAR 600 standard, it erroneously proposed to remove the entire requirement under § 174.63(c)(2). Our intention was to state that a tank and flatcar in COFC or TOFC service must conform to the applicable requirements of the HMR concerning their specification to ensure their acceptable performance. Therefore, in this final rule, PHMSA is revising this language to reflect its original intent.

Part 179

Section 179.13

Section 179.13 specifies tank car capacity and gross weight limitations. In the NPRM, PHMSA proposed to revise § 179.13(b) to correct an error that occurred in a final rule published on May 14, 2010 (75 FR 27205), issued under Docket No. PHMSA–2009–0289 (HM–233A). In that rule, PHMSA erroneously omitted a provision to require FRA approval of rail tank cars with a gross weight on rail that exceeds 263,000 pounds but not 286,000 pounds before they may be used to transport poisonous-by-inhalation (PIH) hazardous materials. PHMSA proposed to revise this section to add the FRA approval statement. We received several commenters expressing support for this correction, without any negative comments. Therefore, we are adopting this change as proposed in this NPRM.

In addition, in its comments Dow states that it operates under DOT–SP 12858 and DOT–SP 14173 which allow the operation of tank cars carrying Ethylene oxide at a gross rail load of 286,000 pounds. Dow requests that only DOT–SP 14173 be incorporated into the HMR. As an alternative, Dow suggests that DOT–SP 12858 not be incorporated into the HMR because Dow has made over 8,000 shipments with these tank cars with no safety incidents. However, DOT–SP 12858 permits the use of tank cars constructed to the AAR S–259 standard which does not align with the proposed requirements. If this cannot be achieved, Dow requests that § 179.13(b) be revised to read as follows:

> Tank cars containing poisonous-by-inhalation material meeting the applicable authorized tank car specifications listed in § 173.244(a)(2) or (a)(3), or § 173.314(c) or (d) may have a gross weight on rail of up to 286,000 pounds upon approval by the Associate Administrator for Railroad Safety, FRA. Tank cars exceeding 263,000 pounds and up to 286,000 pounds gross weight on rail must meet the requirements of the Association of American Railroads, Manual of Standards and Recommended Practices, Section C–III, Car Construction Fundamentals and Details, S–259 or S–286 (IBR; see § 171.7 of this subchapter). Any increase in weight above 263,000 pounds may not be used to increase the quantity of the contents of the tank car.

DOT–SP 12858 permits ''UN 1040, Ethylene oxide, 2.3 (poisonous gas), 2.1 (flammable gas)'' to be transported in DOT Specification 105J400W tank cars constructed of TC–128 Gr B (norm) steel. The tank car must also comply with specific ''Certificate of Construction'' numbers, AAR Standard S–259, and other betterment requirements. DOT–SP 14173 permits ethylene oxide or ethylene oxide with nitrogen up to a total pressure of 1 megapascal (MPa) (10 bar) at 50 °C to be transported in a DOT Specification 105J400W tank car that has a tank test pressure of 400 psig, gross weight on rail load of 286,000 pounds, conforms with the AAR Standard S–286 and Manual C–III, Section 2.5, and additional betterment requirements, some of which are identical to those prescribed in DOT–SP 12858. PHMSA notes that although DOT–SP 12858 was incorporated into the HMR effective October 1, 2010, in a final rule issued under Docket No. HM–233A, PHMSA erroneously omitted its provision that required FRA approval for railcars transporting PIH materials. PHMSA stated this intent in the preamble of both the Docket No. HM–233A NPRM and final rule. Therefore, to correct this error, § 179.13(b) is revised to include this requirement. The Docket No. HM–233A final rule also stated:

> These amendments also apply to any special permits this agency issues during the development of this final rule whose provisions are identical in every respect to those described in the rulemakings issued under this docket.

Because DOT–SP 14173 requires tank cars to be constructed to the AAR S–286 standard, which is currently required under the HMR, it contains provisions that are not identical to those in DOT–SP 12858, so the above-referenced statement from that final rule does not apply. Further, DOT–SP 14173 was not proposed for incorporation into the HMR in the NPRM issued under Docket No. HM–216B. As a result, the public has not been given an opportunity to comment on its incorporation as required under the Administrative Procedure Act. Therefore, it cannot be incorporated into the HMR through them at this time. However, PHMSA may review incorporating DOT–SP 14173 into the HMR in a future rulemaking.

Section 179.24

New § 179.24 was proposed in the NPRM to specify stamping requirements for identification plates for rail cars. In the NPRM, we specifically proposed to permit certain DOT and AAR specification tank cars with stainless steel identification plates to have their specification and other required information stamped on the identification plate instead of the tank car head. The stainless steel identification plates are required for newly constructed tank cars built on or after July 25, 2012. The FRA notes that all the tank car builders are parties to DOT–SP 12905; therefore the work prescribed under § 179.24 is already being performed and the 30-day effective date also prescribed in this requirement is probably not necessary. We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Section 179.100–20

Section 179.100–20 specifies certification stamping requirements for pressure tank cars. In the NPRM, PHMSA proposed to require that newly constructed DOT tanks cars display specification and other required information stamped on stainless steel identification plates instead of into the metal of the tank heads, as formerly prescribed in § 179.24(a). This section specifies tank car capacity and gross weight limitations. We did not receive

any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Midland requests that the requirement to show the water capacity of the tank in pounds as part of a tank car's specification marking be removed. This requirement to mark and/or stencil a tank car's water capacity in pounds is currently prescribed in §§ 179.201–10(a) and 179.400–25(c). Midland states that several years ago PHMSA removed stenciling and stamping from the HMR, formally prescribed in §§ 179.100–21(b) and 179.100–20, when it replaced outage and filling limits for tank cars based upon ''maximum permitted filling densities,'' formally under § 173.314(c), with ''outage and filling limits'' based on the tank's volumetric capacity, currently prescribed in §§ 173.314(c) and 173.24b(1), and not its water weight capacity. Further, Midland states the tank identification plate prescribed in paragraph 4.0 of AAR M–1002, Appendix C, does not require showing the water weight capacity of a tank car. PHMSA did not propose this change in the NPRM; therefore, it is outside the scope of this rulemaking. For this reason, PHMSA is denying this commenter's request. However, we may consider this issue in a future rulemaking.

Section 179.200–24

Section 179.200–24 specifies certification stamping requirements for non-pressure tank cars. In the NPRM, PHMSA proposed to require that newly constructed non-pressure DOT tanks cars display specification and other required information stamped on stainless steel identification plates instead of into the metal of the tank heads, as formerly prescribed in § 179.24(a). We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Section 179.201–10

Section 179.201–10 specifies water capacity marking requirements for non-pressure tank cars. In the NPRM, PHMSA proposed to permit authorized DOT non-pressure tank cars with stainless steel identification plates to have the water capacity of the tank in pounds stamped on the identification plate instead of into the metal head of the tank as prescribed in § 179.24(a) after December 31, 2011. We did not receive any comments on this proposal. However, we did revise the effective date of this provision to July 25, 2012. Therefore, it is being adopted with this date change but, otherwise, as proposed in the NPRM.

Section 179.220–25

Section 179.220–25 specifies stamping requirements for non-pressure tank car tanks consisting of an inner container supported with an outer shell (Class DOT 115). In the NPRM, PHMSA proposed to add a new paragraph (b) to require stainless steel identification plates on newly constructed Class DOT 115 non-pressure tank cars. The plates must be stamped with the specification and other required information instead of into the metal heads of the tank as prescribed in § 179.24(a). We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Section 179.300–13

Section 179.300–13 specifies venting, loading and unloading valve requirements for multi-unit tank car tanks designed to be removed from car structure for filling and emptying (Classes DOT–106A and 110AW). In the NPRM, PHMSA proposed to permit straight threads to be used in the outlet ports of DOT Specification 110A multi-unit tank cars instead of taper threads. The requirement also stipulates that stainless steel safety wire used for hex plugs in threaded boss ports must not fail during its intended use. We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Part 180

Section 180.501

Section 180.501 specifies additional requirements concerning the qualification and maintenance of tank cars that apply to persons who manufacture, fabricate, mark, maintain, repair, inspect, or service tank cars to ensure their continued qualification. In the NPRM, PHMSA proposed to make existing paragraph 180.501(b) new paragraph (c), and add new paragraphs (b) and (d) to this section to clarify, respectively, the minimally acceptable framework each owner's tank car qualification program must have, and to specify that documents concerning the tank car's qualification must be made available upon request to FRA staff or an authorized representative of the U.S. Department of Transportation. The FRA is aware that parties to DOT–SP 12095, which includes a large majority of the tank car owners, have either developed written procedures or purchased procedures from another company, such as a builder or management company like Alltranstek. The minority of tank car owners may experience an expense developing these procedures. However, they also have the option of approving the procedures of the tank car facility performing the inspections and/or repairs. As a result, their costs should be negligible. We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Section 180.503

Section 180.503 specifies that the definitions in §§ 171.8 and 179.2 apply to the tank car qualification and maintenance requirements prescribed in 49 CFR Part 180, Subpart F. In the NPRM, PHMSA proposed to add or modify into the HMR definitions prescribed in DOT–SP 12095 concerning tank car qualification and maintenance. The NPRM proposed to add definitions for the following terms: (1) Lining/coating, (2) Corrosive to the tank or service equipment, (3) Defects, (4) Interior heating system, (5) Modification, (6) Objectively reasonable and articulable belief, (7) Qualification, (8) Railworthy/Railworthiness, (9) Reinforced tank shell butt weld, (10) Reinforcing plate, (11) Reliability, (12) Safety system, (13) Service equipment owner, and (14) Tank car owner. The NPRM also proposed to modify the definitions of these terms with minor edits or rewording: (1) Design level of reliability and safety, (2) Maintenance, (3) Reactive to the tank or service equipment, (4) Representation, and (5) Service equipment. The term ''reinforcing plate'' is revised to read ''reinforcing pad'' to be consistent with the terminology in §§ 179.100–16 and 179.200–19. The NPRM did not add the definitions of these terms because they already exist in § 171.8: (1) Bottom shell, and (2) Top shell.

We received comments on these seven definitions: Corrosive to the tank or service equipment, defects, qualification, safety system, maintenance, reactive to the tank or service equipment, and representation. We also received recommendations to add two definitions that were not proposed in the NPRM, ''inspection and test'' and ''tank car,'' and discuss each definition and our responses in the following paragraphs. In addition, we reversed the wording for the definition for ''Lining/coating'' to ''Coating/lining'' in the final rule to clarify that this term does not refer to linings placed on the external surface of a tank car. Further, any definitions proposed in the NPRM that did not receive comments are being adopted as proposed.

A. Corrosive to the Tank or Service Equipment

In the NPRM, PHMSA proposed to add the definition ''corrosive to the tank

and service equipment'' to mean ''a material identified in proposed 49 CFR Part 180, Appendix D, of the NPRM, or a material when in contact with the inner shell of the tank or service equipment may have a severe corrosion rate on steel or aluminum based on criteria in § 173.137(c)(2).'' Proposed Appendix D to Part 180 lists materials that the FRA determined under certain conditions can corrode carbon steel tanks or service equipment at a rate that may reduce the design level of reliability and safety of the tank or equipment to an unsafe level before its next qualification. The HMR permits the corrosion rate on steel or aluminum prescribed in § 173.137(c)(2) to be used as one of the methods for determining whether or not a material meets the hazard class definition of a Packing Group (PG) III corrosive material.

A few commenters support including the list of materials corrosive to the tank or service equipment the NPRM proposed in Appendix D of 49 CFR Part 180 with some modifications. Several commenters recommend the 49 CFR Part 180, Appendix D list be modified to remove materials that are not corrosive to the tank according to a corrosion rate of 2.5 milli-inch per year (mpy) (0.0025 inch per year) to harmonize it with the description of corrosion to the tank prescribed in Section C, Part III, of the AAR's M–1002, Appendix L. They specifically recommend removing ''methyl methacrylate monomer, stabilized,'' from the list because it does not meet this AAR definition. ARL, GATX, and UTLX suggest PHMSA and FRA review the National Association of Corrosion Engineers (NACE) documentation on this subject prior to issuing this rulemaking. Specifically, GATX Corporation states the NACE Corrosion Data Survey establishes that ''methyl methacrylate has a corrosion rate on carbon steel of less than 2 [mpy],'' but the AAR's M–1002, Appendix L, does not list the material as corrosive because its corrosion rate on steel does not exceed the AAR's 2.5 mpy standard. Therefore, GATX recommends it be removed from the 49 CFR Part 180, Appendix D list.

FRA added the list in Appendix D to TCQ–1 to address significant damage the agency's staff found occurring in tank cars that contained materials that do not meet the HMR definition for a corrosive material. However, we agree with the commenters that it would be inaccurate to leave methyl methacrylate monomer, stabilized, on this list because at 50 °F and 100 percent concentration this material has a corrosion rate on steel of less than 2 mpy. Therefore, we have removed methyl methacrylate monomer, stabilized, from the 49 CFR Part 180, Appendix D list. We emphasize that the list in Appendix D is not exhaustive and any material identified as non-corrosive under the HMR that causes corrosive damage to a tank car or its service equipment is included under this requirement. Further, we may amend this list in the future to include additional materials we determine behave in a similar manner.

Section 173.137(c)(2) defines Packing Group III corrosive materials as materials that do ''not cause full thickness destruction of intact skin tissue but exhibit a corrosion on either steel or aluminum surfaces exceeding 6.25 mm (0.25 inch) a year at a test temperature of 55 °C (130 °F) when tested on both materials.'' It also states ''the corrosion may be determined in accordance with the UN Manual of Tests and Criteria (IBR, see § 171.7 of this subchapter) or other equivalent test methods.'' Several commenters object to using the corrosion rate on steel of 6.25mm (0.25 inch) a year to define the corrosive rate of a material on tank car or its service equipment saying that, although it is part of the HMR's criteria prescribed in § 173.137(c)(2) for classifying Class 8 (corrosive) materials, it has little to do with describing the effect of these materials on tank cars and their appurtenances. Many commenters expressed the belief that the definition was too strict and unworkable under a tank car corrosion control and prevention program or introduced terms too subjective to be quantified. For example, the Union Tank Car Company (UTC) suggests PHMSA remove the word ''severe'' from § 180.503 to remove the subjectivity this word introduces to the definition. UTC also states the proposed definition does not harmonize with AAR M–1002, Section C–III, Appendix L, and recommends the final rule specifically reference this AAR appendix. Dow states the rate proposed in the NPRM is twice that of the AAR MSRP, Section C–III, Appendix L, paragraph 8.3, which is 2.5 mpy. Dow also requests the definition be revised to a corrosion rate of 5 mpy or 0.005 inches per year, and states this rate would allow the opportunity for two qualifications to inspect an item before the tank car reaches the minimum allowable limit for local corrosion. The CIT Group and GATX Corporation request that the rate be changed to 0.0125 inches per year to allow for a minimum steel thickness of 0.3125 inches in a 10-year cycle. GATX states the proposed definition suggests a corrosion rate on steel of 0.25 inches per year, which it believes is severe. AllTranstek states the corrosive rate in the proposed definition ''assumes that a typical tank will experience metal loss over a 40-year period before reaching the minimum shell thickness.'' ARL and CIT Group state the proposed definition is so lenient it would exclude the majority of commodities listed in proposed 49 CFR Part 180, Appendix D. Most commenters recommend PHMSA modify the definition ''corrosive to the tank or service equipment'' to exclude materials not corrosive to the tank according to a corrosion rate of 2.5 mpy (0.0025 inch per year) to harmonize this definition with the description of corrosion to the tank prescribed in Section C, Part III, of the AAR's M–1002, Appendix L.

PHMSA and FRA agree with commenters that proposing to define a material that is ''corrosive to the tank or service equipment'' based on the Class 8 definition prescribed in § 173.137(c)(2) of the HMR may not effectively capture the effects of corrosion on a tank car and its service equipment in use over time. We also agree that harmonizing this definition with the corrosive rate on steel in Appendix L of M–1002 creates a definition based on industry experience with this type of damage to tank cars that will help prevent corrosion to the tank and service equipment, and reduce the occurrence of non-accidental releases and malfunctioning valves. FRA states this rate would also not exceed the allowable thickness reduction after 10 years for the bottom shell of a pressure tank. Further, PHMSA and FRA agree that removing subjective terms, such as the word ''severe,'' to the extent possible promotes clarity in regulations, which improves safety. Therefore, in this final rule, we are revising the definition for ''corrosive to the tank or service equipment'' to remove the word ''severe'' and establish a corrosion rate on steel of 2.5 mpy.

B. Defects

In the NPRM, PHMSA proposed to add the definition ''defect'' to mean ''abrasions;'' corrosion; cracks; dents; flaws in welds; distortions; erosion; missing, damaged, leaking or loose components and fasteners; and other conditions that lower the design level of reliability. The NPRM also repeats the full definition in § 180.509(b).

AllTranstek, CIT Group, and UTLX request the definition for ''defect'' be placed only in § 180.503 to represent what is meant by the term everywhere else it appears in 49 CFR Part 180,

Subpart F, instead of repeating the full definition in each place the term is used, such as in § 180.509(b). We agree with the commenters that this revision promotes clarity, and will make this change.

C. Inspection and Test

In the NPRM, PHMSA and FRA used the phrase ''inspections and tests'' as part of the qualification definition by stating these were required through careful and critical examination to accomplish qualification. AllTranstek and the CIT Group ask PHMSA to revise the final rule by adding a new definition for ''inspection and test'' to clarify what this wording means. AllTranstek and the CIT Group specifically request that this definition include wording that means an activity intended to: (1) Assess the current condition of equipment against the applicable tank car specification (i.e., acceptance criteria), (2) test the operation or functionality of the equipment, and (3) determine if maintenance is required to restore the equipment to its specification.

FRA interprets an ''inspection'' to be a visual examination to search for physical indications of deterioration or failure, and a ''test'' to be a physical demonstration that the tank or features function as designed. A tank car's successful completion of its inspection and test means it should remain in compliance throughout the predetermined qualification interval. PHMSA and FRA consider these qualification tasks. PHMSA and FRA also agree with commenters that adding regulatory language in this final rule that explains what is meant by inspection and test, although we believe the word ''test'' is self-explanatory. Therefore, PHMSA will add a definition to § 180.509 to clarify what is meant by ''inspection and test.'' PHMSA considers ordinary repairs to be ''routine'' maintenance and extraordinary repairs to be unexpected repairs needed to address a tank car's failure that occurs between inspections, such as repairs due to incidents, or repairs that will typically cause a tank car to be removed from service. PHMSA and FRA agree with commenters that use of the words ''ordinary'' and ''extraordinary'' are subjective and, thus, confusing. Therefore, PHMSA will replace the word ''ordinary'' with ''routine'' and remove the word ''extraordinary'' from the definition for maintenance in § 180.503.

D. Maintenance

In the NPRM, PHMSA and FRA proposed to add a definition for ''maintenance'' under § 180.503. AllTranstek states the rail industry uses the words ''maintenance'' and ''qualification'' interchangeably, and the way these terms are defined in the NPRM causes confusion. AllTranstek states PHMSA needs to revise these definitions to clarify when an owner or tank car facility is responsible for determining if a tank or component of a tank car is qualified for continued use. GATX states the definition should include any repair, from the ordinary to the extraordinary. This commenter also noted the proposed rule does not make clear what ordinary repairs are under the HMR. ARL and UTLX recommend that the definition for maintenance be clarified to ensure users of these requirements have a clear understanding of what is meant by maintenance, inspection and test, and qualification. UTLX requests the ''maintenance'' definition exclude activities that are performed by operators and shippers at facilities that are not certified or registered by the AAR. Several commenters also request PHMSA revise the definition for ''maintenance'' to state it is performed after an inspection and test and includes maintenance tasks that return a tank car to its current specification, such as lubricating a bolt, replacing a gasket or valve, or tightening fastener, replacing a cracked weld, and replacing metal loss. These commenters state maintenance does not include modifications that would alter the tank car's specification or maintenance activities (e.g., replacing a manway gasket, lubricating fasteners, tool tightening fasteners) that are performed by operators at facilities not registered or certified by the AAR. GATX Corporation questions what ''ordinary'' repairs in the maintenance definition means, and suggests that there is no need to exclude extraordinary repairs from this definition. GATX Corporation also requests the definition be revised to read as follows ''Maintenance means necessary and proper inspection, upkeep, or preservation, including ordinary repairs.''

PHMSA and FRA agree with commenters that maintenance can include tasks such as lubricating a bolt, replacing a gasket or valve, or tightening a fastener. PHMSA and FRA also agree with commenters that maintenance tasks include significant repairs to return a tank car to its specification, such as repairing a cracked weld and replacing a tank car's metal loss, or damage resulting from activities involving a tank car's inspection and test. However, PHMSA and FRA disagree with commenters that the words ''maintenance'' and ''qualification'' can be used interchangeably. In this rule, PHMSA proposed a general definition of maintenance to cover its broad applicability to the elements prescribed in § 180.509. Under this section, maintenance can be classified as scheduled (periodic inspection) or unscheduled (non-periodic inspection); it can also include activities that support qualification and those that do not. Maintenance activities that support qualification are repairs made to the tank car features that are specifically inspected and tested in conformance with the requirements under § 180.509. A tank car owner is required to establish inspection intervals, based on experience and data analysis, throughout which the car will remain qualified to transport hazardous materials. It is important to note that unscheduled maintenance activities that support qualification should be an indicator to the tank car owner that its inspection (qualification) interval may not be adequate and should be reevaluated. We interpret ''qualification'' as prescribed inspections and tests that must be performed to verify that a tank car is in satisfactory condition for continued use and, thus, meets the requirements of the HMR. As stated earlier in this preamble, PHMSA and FRA interpret ''ordinary'' repairs as ''routine'' repairs and activities that are needed to maintain an in-operation tank car to its specification after completion of its last satisfactory qualification and before its next qualification is due. We also interpret ''extraordinary'' repairs as unexpected repairs that occur between inspections and are needed to address the failure of a tank car or its appurtenances covered under 49 CFR Part 180, Subpart F. Therefore, PHMSA will add a definition for ''inspection and test'' to § 180.503, and language to § 180.509 to clarify what is meant by this wording. Further, PHMSA and FRA note the commenters who recommended that PHMSA revise the definition of maintenance to apply to repairs performed at AAR registered or certified facilities only did not provide information on the costs and benefits associated with this proposal. The FRA believes eliminating work performed at facilities that are not registered or certified by the AAR may introduce costs and operational delays that are prohibitive, and that insufficient information exists to make this determination at this time. Therefore, PHMSA is denying this request from the commenters, but may

consider it in a future rulemaking if sufficient cost and benefit information becomes available. Depending on the work required, the FRA notes most work performed on DOT specification tank cars and tank cars transporting regulated commodities must be done by registered or certified facilities. Also, the HMR cover work that must be performed by registered or certified facilities. As a result, the FRA has determined distinguishing between work performed at registered or certified facilities and those facilities that do not have either one of these designations would result in little, if any, cost implications.

E. Qualification

In the NPRM, PHMSA proposed to add the definition ''qualification'' as ''relevant to a tank'' to mean ''the car conforms to the specification to which it was built or modified, to the requirements of this Subpart, to the requirements of the AAR Tank Car Manual * * * and to the owner's acceptance criteria. Qualification is accomplished by careful and critical examination using inspections and tests based on a written program that verifies conformance, followed by a written representation of that conformance. A tank car that passes the appropriate tests for its specification, has a signed test report, is marked to denote this passage, and is considered qualified for hazardous materials transportation under'' the HMR. For ease of use, Note 1 of the table of required tank car tests and inspections that accompanies this definition was revised to include the reference to § 180.509 where paragraph (f)(2) is found. This qualification definition varies from the one prescribed in TCQ–1 in that it is reorganized and revised to state in the first sentence what the term means, in the second sentence how to achieve it, and in the last sentence what is meant by written representation of successful test.

ARL and UTLX state additions to the qualification definition in the NPRM changed its scope to incorporate the entire AAR Manual, and request that it be revised to reference the AAR M–1002, Section C–III, Appendix D. These commenters state incorporating the entire manual into the qualification definition will not allow tank car owners needed flexibility except through the issuance of another special permit. These commenters also state because the reference to the December 2000 version of the AAR's M–1002 does not include additional tank car qualification requirements in the AAR's latest Appendix D, this would allow obsolete requirements to be incorporated into this rulemaking's revisions to 49 CFR Part 180. In addition, GATX Corporation states the section references in § 171.7 for the AAR's M–1002 include requirements that do not have anything to do with tank cars or their qualification, such as requirements for intermediate bulk and ton containers as well as tank car manufacturing. GATX Corporation requests that this definition include only those M–1002 requirements that apply to tank car qualification by inserting the phrase ''applicable to tank car qualification'' in the definition where it refers to AAR's M–1002. AllTranstek states qualification is merely the final process of verifying and representing in writing that the scheduled or non-scheduled work was performed properly, and recommends the qualification definition be revised as follows:

> *Qualification* means the act or process of verifying, validating, and certifying in writing that an item conforms to the design specification. Qualification is something you do after an inspection and test, after maintenance, or after a modification (i.e., an alteration or conversion) that changes the design specification. [* * *]

AllTranstek also states the HMR require persons who perform inspection and test, maintenance, or modification functions on a tank or component subject to the HMR to prepare a report and sign it; thereby, certifying the tank or component is ''qualified for continued use'' and conforms to its design specification, or a new design specification given proper approvals. See § 180.1.

PHMSA and FRA agree incorporating the entire AAR M–1002 into the qualification definition without limiting it to only those requirements applicable to tank car qualification is confusing and alters the scope of this definition as it was used in TCQ–1. The TCQ–1 definition of qualification proposed in the NPRM includes (1) inspection and test, (2) verifying that the results of the inspection and test meet the owner's acceptance criteria, and (3) representation that the tank car meets the criteria. The revised definition AllTranstek recommended separates verification and representation from the inspection and test. FRA considers inspection and testing (e.g., careful and critical examination) to be an integral part of the definition of qualification in DOT–SP 12095. Also, PHMSA and FRA agree with the commenters that adding a definition for inspection and test to the HMR in this final rule would help clarify its intent that the qualification definition be used as it was prescribed in DOT–SP 12095. Therefore, PHMSA is revising the definition for ''qualification'' in § 180.503 to clarify that only those provisions in M–1002 concerning tank cars apply, and is adding a definition for ''inspection and test'' in § 180.503 to clarify its meaning in the qualification definition.

In the NPRM, the definition for qualification under § 180.503 states in its second sentence that ''Qualification is accomplished by careful and critical examination using inspections and tests based on a written program that verifies conformance, followed by a written representation of that conformance.'' The third sentence of this definition states ''A tank car that passes the appropriate tests for its specification, has a signed test report, is marked to denote this passage, and is considered qualified for hazardous materials transportation under this subchapter.''

Some commenters request PHMSA revise the definition of the word ''qualification'' to state it involves verifying in writing that the work performed on a tank as well as a tank car component was done properly and that this work complies with the requirements for its specification after this work is completed. Some commenters also request that the qualification definition be revised to require that in addition to passing the appropriate tests a tank car must pass appropriate inspections, as well. For example, AllTranstek states scheduled testing (e.g., every 10 years) and non-scheduled maintenance and repair activities both require an inspection.

As stated earlier in this preamble, PHMSA and FRA agree with commenters that tank car qualification definition, as this word was previously used under TCQ–1, requires that the tank car and its service equipment be inspected and tested to verify that the work performed meets the owner's acceptance criteria. The definition also states the work must have ''documentation of that conformance'' and a ''signed test report.'' Because the qualification definition already satisfies these commenters' requests, no further revisions of this type are needed to the definition. Therefore, PHMSA is denying this request.

AllTranstek requests PHMSA remove the table in the ''qualification'' definition in § 180.503, or move the leakage pressure test on this table to the ''service equipment'' definition in § 180.509(k), since a leakage pressure test is required to be performed after service equipment is applied to the tank. Leakage pressure tests reveal tank car leaks where valves are connected and also leaks on welds around and between pads. Leakage pressure tests

can also be performed and passed independent of qualification. PHMSA and FRA agree with commenter that a leakage pressure test must be performed after service equipment is applied to a tank car (see § 180.509(j)). Therefore, PHMSA and FRA agree that the table under the qualification definition is no longer needed and will be removed.

F. Reactive to the Tank or Service Equipment

In the NPRM, PHMSA proposed to add a definition for ''reactive to the tank or service equipment'' under § 180.503. Some commenters request PHMSA remove the definition ''Reactive to the tank or service equipment'' from § 180.503, and the wording ''or reactive'' from § 180.509(f)(2)(ii)(A) so that materials that react with the tank to produce heat, gases, or pressure but are not corrosive to the tank's base metal will not place an unnecessary burden on tank car owners and operators to frequently inspect tank car thickness.

FRA understands the commenters' concerns about an owner being responsible for protecting the tank against adverse conditions not related to the preservation of tank shell thickness. However, FRA disagrees with the commenters that owner should not be held responsible. Both DOT–SP 12095 and the changes proposed in the NPRM for § 180.509 appropriately hold the coating/lining owners responsible for the performance of their coatings and/or linings. Similarly, the tank car owners must remain responsible for the overall reliability and safety of their tank cars. Tank car owners must assert control over the materials transported in their tank cars through lease agreements. FRA has learned too many shippers defer to a product purity (PP) designation for their coating/lining if a commodity is not listed in DOT–SP 12095's Appendix D table. Tank car owners must require that their lessees demonstrate that both the internal coating/lining and the designation and subsequent inspection intervals and methods used are appropriate. Therefore, FRA believes the requirement proposed in the NPRM for § 180.509(f)(2)(iii)(A) is reasonable unless it can be demonstrated that the reaction of the material with the tank that produces heat, gas, or pressure, does not affect in any way the mechanical properties of the steel or cause changes in appearance in exposed areas of the tank or its service equipment that could be identified during a visual inspection. If these conditions are met, the owner could then request an alternative inspection procedure under § 180.509(l). Therefore, PHMSA is denying the commenters' request.

H. Representation

In the NPRM, PHMSA and FRA propose to reword the definition for ''representation'' in § 108.503. ARL states the definition for ''representation'' in the NPRM does not agree with the proposed regulatory text for §§ 180.511 and 180.517(b) in that it doesn't recognize retaining documents electronically. This commenter recommends PHMSA revise the proposed definition of representation to recognize electronic document retention to eliminate confusion.

PHMSA and FRA disagree that requirements concerning electronic retention of data need to be repeated in the ''representation'' definition concerning the representation of a tank car's qualification. This definition establishes that a tank car is qualified and railworthy through documentation in writing or marking, thereby, explaining what ''qualification'' means and not the documents required for it, which are in other HMR sections. However, PHMSA and FRA acknowledge that referencing the applicable sections in §§ 180.511 and 180.517 would assist the user with applying these requirements. Therefore, for clarity, PHMSA is adding the appropriate references for these sections to the definition of representation in § 180.503.

I. Safety System

In the NPRM, we proposed to add a definition for ''Safety system'' under § 180.503. ARL requests for clarification that PHMSA replace the wording ''the HMR'' in the NPRM's proposed definition for ''Safety system'' with the wording ''this subchapter.'' PHMSA and FRA agree with the commenter that this wording may clarify the full scope of the applicability of this definition, and will make this editorial change.

Under § 173.24 of the HMR, paragraphs (b)(2) and (b)(3) prohibit a package used for the shipment of hazardous materials to be made, filled, and closed so that under normal transportation conditions there will be no identifiable release hazardous materials and the effectiveness of the package will not be substantially reduced. Further, the NPRM proposed to incorporate Appendix A of TCQ–1, which lists materials that are capable, under certain conditions, of corroding a tank car or its service equipment. The language that precedes the lists in the appendix explains that the list is not all-encompassing and reminds owners and operators that they have a duty to ensure that no in-service tank will deteriorate below the specified minimum thickness requirements prescribed in DOT–SP 12095. TCQ–1 does not include a definition for materials that are reactive to a tank. Since the issuance of TCQ–1, FRA has become aware of incidents involving chemicals reacting with tank cars and their components through the use of inadequate or defective tank car coatings and/or linings. Some of these reactions are corrosive but others include mixtures of gases or vapors that could significantly reduce the effectiveness of a tank car. Examples include:

- Hydrolysis resulting in the formation of dilute acid;
- Preferential corrosion of a carbon steel tank in the presence of stainless steel components (e.g., if an internal coating of a carbon steel tank has a small breach and the contents of the tank equipped with a stainless stee siphon pipe form a conductive liquid, the tank will experience concentrated, aggressie corrosion at the location of the breach; and
- Generation of excessive pressure or explosive, flammable, toxic, asphyxiating vapors when the material in the tank car is exposed to the tank and/or its components, heat, or moisture.

FRA is aware of incidents where a chemical was placed in a tank car with an incompatible or defective lining allowing the chemical to come in contact with the steel of the tank and react. In one instance, the pressure generated from the reaction within the tank was sufficient to cause the pressure relief device to become unseated from the tank car. No one was injured, but the tank car was severely damaged and had to be removed permanently from service. The FRA determined in each of these scenarios the tank car lining owners believed the lining or internal coating used in an in-service tank car was there to ensure product purity when it was actually needed to protect the tank. Also, FRA learned some tank car lining owners assume no coating/lining inspections are required for tank cars that contain products not included on the TCQ–1 Appendix A list. Both assumptions are incorrect. A coating or lining owner must understand and prevent conditions that can cause adverse reactions to comply with the general packaging requirements for all hazardous materials packagings prescribed in § 173.24(b). Under § 173.24(b), a package used for the shipment of hazardous materials must be designed, constructed, maintained, filled, its contents so limited, and

closed, so that under conditions that normally occur in transportation: (1) There will be no identifiable release of hazardous materials to the environment; (2) the effectiveness of the packaging will not be substantially reduced; and (3) there will be no mixture of gases or vapors in the package which could through any credible spontaneous increase of heat or pressure, significantly reduce the effectiveness of the packaging. If adverse reactions can be prevented by installing a lining or internal coating, the coating or lining must be maintained and/or inspected as required in Subpart F of 49 CFR Part 180. In addition, a coating or lining applied with the primary purpose of protecting the product is subject to periodic inspections and test requirements. PHMSA and FRA proposed in the NPRM to add a new definition for ''reactive to the tank and service equipment'' and modify related regulatory text in §§ 180.503 and 180.509 to address these safety concerns. Therefore, PHMSA is denying these commenters' requests.

GATX Corporation states that the shipper and not the tank car owner should be responsible for ''protecting the tank against other adverse conditions not related to preservation of tank shell thickness, such as reactivity that results in pressure build up, harmful byproducts, etc.''

PHMSA and FRA agree with this commenter that shippers should be responsible for ensuring tank car lining integrity and appropriateness as well as the tank shell's thickness. Shippers are often the tank car lessees, and they often apply or have applied tank car coatings and/or linings to mitigate the specific risks of transporting their material in a tank car. On the other hand, lessor tank car owners may not know what materials are loaded in their tanks such that they are unable to ensure the integrity or appropriateness of a tank car's coating and/or lining. In addition, FRA and PHMSA believe shippers of materials in tank cars have the most knowledge about the risks of the materials about the risks of the materials they ship and the types of lining needed. FRA and PHMSA also believe it is appropriate that they be responsible for visually inspecting coatings and linings and determining their compatibility with the load being shipped. However, a tank car owner is still responsible for its tank car and must establish the conditions under which interior coatings and lining can be applied or removed as well as the materials that may be in a tank car, even if the owner is not the coating or lining owner. Therefore, PHMSA is denying this request.

J. Tank Car

In the NPRM, PHMSA and FRA proposed to incorporate the requirements for tank cars in TCQ–1 with modifications under the HMR. AllTranstek requests the term ''tank car'' be changed to ''tank and components subject to this subchapter'' throughout the regulatory text proposed for 49 CFR Part 180. This commenter states this wording is consistent with the scope of §§ 179.1(a), 179.2(a)(11), and 180.501 in that it will clarify that trucks, wheels, axles, airbrake equipment, draft systems, and safety appliances of a tank car are subject to the FRA's regulations prescribed in 49 CFR Parts 215, 231, and 232, but not the HMR.

PHMSA and the FRA agree that certain components of a tank car are solely subject to FRA regulations, but requirements concerning the safe design, use, and testing of a tank car and its components are also prescribed in the HMR. In addition, although the HMR contains several references to tank cars, neither ''Tank car'' or ''tank car tank'' are specifically defined in the HMR or DOT–SP 12095. ''Tank and components subject to this subchapter'' is a phrase that is also not used or defined in the HMR. Further, FRA and PHMSA believe this phrase in misleading in that the systems of a tank car depend on each for the safe operation of the entire tank car and should not be examined or managed individually in a manner that relieves the shipper or carrier of specific individual requirements, such as relief from a one-time movement or subjective assessments of conditions normally deemed to be unsafe in transportation such as determining only damage or cracks of a specific size are subject to the regulations. PHMSA and FRA agree with the commenters that adding a definition for ''tank car tank'' would provide clarity and promote consistency when complying with these regulations. PHMSA and FRA recognize that this definition was not proposed in the NPRM, and may be subject to possible revision in a future rulemaking, but believe its addition will promote the consistent understanding of this wording in the HMR and, thereby, improve safety. Therefore, PHMSA is accepting this commenter's request.

Section 180.507

Section 180.507 specifies that each DOT specification tank car used to transport hazardous materials must meet the requirements of 49 CFR Part 180, Subpart F or its applicable specification requirements. In the NPRM, PHMSA proposed to revise the first sentence in (b)(2) of § 180.507 to require the owner or operator of a tank car authorized to transport a cryogenic liquid that conforms with a special permit or exemption issued before October 1, 1984 remove the special permit or exemption number and re-mark the tank car with the appropriate Class DOT–113 specification followed by the applicable special permit number. We did not receive any comments on this proposal. However, after this provision was issued the FRA determined the need for this section no longer exists because most of the tank cars subject to this paragraph have been modified, that one special permit of this type may exist, and that the tank cars authorized under that special permit have already been marked with the current DOT–SP number. Therefore, PHMSA is removing § 180.507(b).

Section 180.509

Section 180.509 specifies requirements that each tank car facility shall use to inspect and test the specification of tank cars. In the NPRM, PHMSA proposed to add requirements under § 180.509(b) to require the owner of a tank car coating or lining to perform an appropriate inspection and test according to the type of defect and maintenance or repair performed if the tank car shows evidence of abrasion, corrosion, cracks, dents, distortions, defects in welds, or any other condition that would make the tank car unsafe in transportation or if the tank car was involved in an accident and shows evidence of damage that may adversely affect its capability to retain its contents or otherwise remain railworthy. The conditions and frequencies of inspections and tests are based on the tank car owner's or coating or lining owner's knowledge of the tank car and/or coating or lining. The procedures and intervals proposed in the NPRM and prescribed in this final rule are intended to prevent failure between inspections and minimize the liability of shipping hazardous materials.

ARL and GATX request that PHMSA change the title in the NPRM for § 180.509(b) from ''Conditions requiring inspection and test of tank cars'' to ''Conditions requiring qualification of tank cars'' because it is inconsistent with the use of the word ''qualification'' in the titles of § 180.509 (Requirements for qualification of specification tank cars) and § 180.509(c) (Frequency of qualification). ARL and UTLX also request PHMSA change the title ''Tank and Shell Thickness Qualification Frequencies'' for Figure A under

§ 180.509(f)(2)(iii)(B) to ''Tank Shell or Head Thickness Qualification Frequencies'' because this section has been updated in the proposed rulemaking to include tank car heads. PHMSA and FRA agree with the commenters that the changes to these titles clarify for the user what is covered in this paragraph and table. PHMSA will make these changes.

In the NPRM, PHMSA proposed to require in 180.509(d)(2) that tank cars be visually inspected when a lining, coating, head protection, insulation, or thermal protection is partially or totally removed. PHMSA and FRA also proposed under § 180.509(e)(4) to permit direct, remote, or enhanced visual inspection. UTLX requests PHMSA revise § 180.509(e)(4)(v) to list visual testing as ''VT'' and remote visual inspection as ''RVI'' to agree with AAR M–1002, Section C, Part III, Appendix T, which defines these terms separately. PHMSA and FRA agree with this commenter's suggestion that this change is consistent with AAR M–1002 and will make the change in this final rule.

With regard to a tank car coating or lining service history under § 180.509(i)(2), the FRA notes the owner must define an inspection interval. If coating or lining inspection has not been performed in that interval, the coating or lining owner has committed a violation. Under these new requirements, this owner must also define the acceptance (or rejection) criteria for the coating or lining. If the inspection result indicates its condition did not meet the minimum acceptance criteria, the coating or lining owner has committed a violation. Further, the FRA wants the following information collected and available during inspections concerning tank car coatings and linings: (1) Manufacturer recommendations, (2) previous inspection reports, (3) repair records, (4) service history (in the form of the number of trips), and (5) in-service inspections. The intent of the coating/lining inspection requirement is for the coating/lining owner to analyze inspection and test results with respect to the specific lading(s) the tank car is transporting. For example, if a shipper has fleet of rubber-lined cars and has transported three different commodities in the cars, the shipper needs to evaluate the inspection and test results relative to a specific commodity assuming the tank car is in dedicated service. Stated another way, if a tank car is used for hydrochloric acid service, the shipper needs to consider the performance of the lining to that service rather than aggregating the test results with results from linings in other services.

Section 180.511

Section 180.511 specifies what results are acceptable to qualify tank car inspections and tests. In the NPRM, PHMSA proposed: (1) To revise the introductory text of § 180.511 to require the representation of a qualified tank car's inspections and tests to be marked on the tank in conformance with § 180.515, (2) to revise § 180.511(d) to include a requirement that the safety system inspection must also show no indication of a defect that may reduce the reliability of a tank car before its next inspection and test, (3) to revise § 180.511(g) to require a hydrostatic test for the inner tank of a DOT Class 115 specification tank car, and (4) to add § 180.511(h) to establish acceptable results for inspection and test requirements for service equipment.

We did not receive any comments on these proposals. Therefore, they are being adopted as proposed in the NPRM. However, the FRA notes that there are approximately 370 DOT Class 115 specification tank cars in existence, based on 2010 numbers, and this is a very small percentage of the entire tank car fleet. Further, the FRA states these tank cars are hydrostatically tested in lieu of the structural integrity test, and there is little cost difference between these tests. The FRA also states we cannot know all the acceptance criteria currently used to inspect and test service equipment, so the costs associated with these tasks are difficult to quantify, but the FRA believes those facilities that were pressure testing the valve rather than ''disassembling and inspecting'' may experience a cost increase of $100.00 to $200.00, which may be considerable, to perform the latter type of inspection. In addition, the FRA states a valve rebuild, depending on its condition, could also increase costs along with the rate of valve replacement.

Section 180.513

Section 180.513 specifies the requirements a tank car facility must comply with to perform repairs, alternations, conversions, and modifications to a tank car. In the NPRM, PHMSA proposed to revise paragraph (a), revise paragraph (b) and renumber it paragraph (c), and add new paragraphs (b) and (d) to require that: (1) In addition to having to comply with the AAR's Specifications for Tank Cars, a tank car facility making repairs, alterations, conversions, or modifications to a tank car must comply with the tank car owner's requirements; (2) must obtain the permission of the equipment owner before performing work that would affect the alteration, conversion, repair, or qualification of the owner's equipment; and (3) after the work is performed, the tank's service equipment must successfully pass the leak test prescribed in § 180.509(j).

We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM. The FRA notes the time needed to perform the tasks prescribed in the new requirements and their costs may increase a little initially but should result in tank cars being sent to approved facilities over time. Historically, the FRA has found work performed on tank cars at approved facilities has resulted in improvements in their safe performance. Also, the FRA notes a tank car and its service equipment must successfully pass the leak test prescribed in § 180.509(j) prior to the release of a tank car from a repair facility.

Section 180.515

Section 180.515 specifies the marking requirements for tank cars that pass their inspections and tests with acceptable results. In the NPRM, PHMSA proposed to require that tank car marking requirements in § 180.515(a) be revised to establish that dates displayed on a consolidated stencil take precedence over dates that are modified and not stenciled, pursuant to interval adjustments for service equipment, linings, and granted alternative inspection intervals. The NPRM also proposed to revise § 180.515(b) to specifically list converted DOT 105, 109, 112, 114, and 120 specification tank cars, instead of ''pressure converted'' tank cars, as being required to have new specification and conversion date markings. We also proposed to revise § 180.515(c) to require that the ''installation date'' of a reclosing pressure relief device on a tank car must be the test date the device is qualified, instead of ''pressure tested,'' which must be within six months from the date it was installed and protected from deterioration. The FRA notes tank car owners must now ensure the stencils on their cars are accurate to avoid civil penalties resulting from the discovery of violations during inspections; however, this provision should result in no additional costs. We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Section 180.517

Section 180.517 specifies the reporting and record retention requirements of certified specification tank car tanks. In the NPRM, PHMSA proposed to revise § 180.517(a) to require the builder's signature on a tank car's certificate of construction and marking of the tank car with the tank's specification as representation that all the appropriate inspections and tests were performed successfully and the tank is qualified for use. PHMSA also proposed in the NPRM to revise § 180.517(b) to require that the written report of a tank car's qualification inspections and tests must be provided in a common readable format to FRA upon request, and must include the tank car reporting mark and number, specification, name of the inspector, and the unique code (station stencil) identifying the facility. The FRA's inspection authority currently affords its staff access to this information. As a result, the regulations prescribed for this section should result in no additional costs. We did not receive any comments on this proposal. Therefore, it is being adopted as proposed in the NPRM.

Appendix D to Part 180

PHMSA proposed to add a new 49 CFR Part 180, Appendix D, to include materials the FRA has determined may, under certain conditions, corrode carbon steel tanks or service equipment at a rate that may reduce their reliability. The provisions concerning Appendix D of Part 180 were discussed earlier in this preamble under the heading Section 180.503 for the definition of ''Corrosive to the tank or service equipment.'' We stated some commenters request PHMSA revise the list to exclude materials that do not meet the AAR's description of materials that are corrosive to the tank in Section C, Part III, Appendix L, of the AAR's M–1002. The AAR describes these materials as having a corrosion rate of 2.5 mpy or more. We agreed with the commenters to make this change but emphasized that the list in Appendix D is not exhaustive, and includes any material that can cause corrosive damage to a tank car or its service equipment or that otherwise reduces the reliability and safety of their design.

Sufficient Time To Remove Obsolete Special Permit Markings on Tank Cars

In its comments, Dow requests, on behalf of the Rohm & Haas Company, that PHMSA provide ''sufficient extra time to obliterate special permit number stenciling from each rail tank car'' at or before the tank car's next requalification. Dow states if PHMSA requires DOT–SP stenciling to be removed at the tank car's shipping location prior to its next shipment, Dow would incur additional costs of approximately $30,000 or $70,000 to obliterate each stenciling, as well as operational constraints to perform this task safely. The issue of special permit stenciling or marking removal was not discussed in the NPRM for this rulemaking action. However, effective March 3, 2011, PHMSA did issue a final rule concerning cargo tanks under Docket No. PHMSA–2010–0017 (HM–245, 2/1/2011, 76 FR 5483) that added a provision under § 173.23(h) to authorize any packaging permanently marked with a special permit number (DOT–SP) that has been incorporated into the HMR to continue to be marked with that obsolete special permit number for the life of the packaging, i.e., without removal or obliteration. Neither the final rule issued under Docket No. HM–245 final rule nor the HMR require non-permanent special permit stencils or markings to be removed if the special permit is obsolete.

On January 25, 2011, FRA published a notice in the **Federal Register** providing approval of certain tank cars to exceed the gross load on rail (GRL) limitation of 263,000 pounds without the need for a special permit (76 FR 4250). FRA also stated in the notice that all markings on tank cars subject to the GRL special permits that had been incorporated into the HMR under the final rule PHMSA published on May 14, 2010 (Docket No. PHMSA–2009–0289, 75 FR 27205, 5/4/2010), must be removed or obliterated by January 25, 2012, or at the tank car's first shopping event, whichever came first. FRA received several requests after the publication of that notice to extend the deadline for removing the special permit markings from tank cars to the date each subject tank car is required to have its next qualification under 49 CFR Part 180 to reduce costs and eliminate the need to provide hazmat employees in locations where this task is normally not performed with the proper equipment and training to perform the task. On January 27, 2012 (77 FR 4271), FRA agreed with the commenters' requests and issued a notice entitled ''Special Permit Marking Removal'' in the **Federal Register** that extended the deadline for removing the special permit markings from tank cars to the date each subject tank car is required to have its next qualification under 49 CFR Part 180. Based on the new § 173.23(h) and recent FRA notice, PHMSA has determined the commenter's request has already been met and no further action is needed.

Table Summary of the Provisions Adopted Into Part 180 From DOT–SP 12095

For ease of the reader, the following table summarizes the changes incorporated into 49 CFR Part 180 from DOT–SP 12095.

Number	Section No.	Proposed change to 49 CFR Part 180	Proposed change from DOT–SP 12095
1	*180.501*	Applicability	Existing paragraph (b) is now paragraph (c), and new paragraph (b) and (d) are added to clarify, respectively, the minimally acceptable framework each owner's tank car qualification program must have, and specifies that documents must be made available upon request to FRA or an authorized representative of the U.S. Department of Transportation.
2	*180.503* (Definitions)	Bottom shell	Not added. This definition already exists in § 171.8.
		Coating/lining owner	Minor edits. ''Coating'' made first word in definition to clarify that this definition applies to internal tank car coatings and linings only.
		Corrosive to the tank or service equipment.	Added corrosion rate requirement.
		Defects	Added to eliminate industry confusion.
		Design level of reliability and safety.	Minor edits.
		Inspection and test	Added to aid industry compliance.
		Interior heating system	No change.
		Lining/Coating owner	Changed to ''Coating/lining owner.'' Minor edits.
		Maintenance	Minor edits.

Number	Section No.	Proposed change to 49 CFR Part 180	Proposed change from DOT–SP 12095
		Modification	Added to aid industry compliance.
		Objectively reasonable and articulable belief.	Added to explain the use of this term in § 180.509(b)(4).
		Qualification	First sentence states what the term means instead of how to achieve it. Second sentence (essentially unchanged) states how to achieve qualification and emphasizes that ''qualification'' requires a representation that the process has been completed successfully. The table that referenced the qualifying tests and inspections has been removed.
		Railworthy, Railworthiness	Explains the term. When FRA requires a recall of a tank car or series of tank cars it issues a ''Railworthiness Directive.'' It is revised to include that the tank car must conform to the HMR, and is otherwise suitable for continued service''
		Reactive to the tank or service equipment.	Adds reactivity language based on § 173.24(b)(2) and (3).
		Reinforced tank shell butt weld.	No change.
		Reinforcing pad	The word ''plate'' was changed to ''pad'' to be consistent with §§ 179.100–16 and 179.200–19. No change to the definition.
		Reliability	No change.
		Representation	Reworded.
		Safety system	Minor edits.
		Service equipment	Minor edits.
		Service equipment owner	Added to clarify the party responsible and to accommodate a growing trend in the industry that the owner of the car may or may not own the service equipment.
		Tank car owner	This is a codification of previous FRA interpretations and statements.
		Tank car tank	Added to aid industry compliance.
		Top shell	Not added. This definition already exists in § 171.8.
3	*180.507*	Paragraph (b)(2)	Removed.
		Paragraph (b)(5)	This TCQ–1 paragraph is omitted but language is used from existing § 180.507(b)(5).
4	*180.509*	Paragraph (a)(4)	Added last sentence to ameliorate a concern from tank car owners that modifications have been made to their cars without their knowledge; minor edits.
		Paragraph (b)(4)	Replaced ''probable cause'' with the wording ''objectively reasonable and articulable belief'' because the former is a term of art in criminal law and is also used in FRA drug and alcohol regulations. The intent of § 180.509(b)(4) is to create a less-stringent standard than that of an emergency order, but rigorous enough to compel a tank car owner to re-inspect and repair, if necessary, tank cars considered potential hazards irrespective of their periodic test and inspection requirements.
		Paragraph (c)(3)	Minor edits.
		Paragraph (d)	Minor edits.
		Paragraph (d)(2)	Added last sentence for clarity.
		Paragraph (d)(3)	Added ''Corrosion'' as specific element for inspection.
		Paragraph (d)(5)	To insure inclusiveness, added ''all closures'' as substitute for specific item names.
		Paragraph (d)(6)	Dropped ''operability'' test of excess flow valves because it is not a practical test and a successful result might damage the excess valve seat and preclude seating in a future event.
		Paragraph (e)(1)	Replace ''high-stressed structural elements'' with the simpler words ''structural elements.''
		Paragraph (f)(1)	Added the responsibility of the tank car owner for clarity.
		Paragraph (f)(4)	Added a general prohibition against operating overly thin tank cars; this responsibility is changed from putting it solely on tank car owners who often have no control over the day to day movements of their tank cars.
		Paragraph (g)	Minor edits; removes the language that implies only a ''qualified individual'' could find a thin tank car and invoke the restrictions in this paragraph.
		Paragraph (h)	No change.
		Paragraph (i)	Minor edits; adds requirement for shippers to visually inspect and ensure, as required under § 173.31(d)(1), that tank car coatings/linings are compatible with their material.
		Paragraph (j)	Minor edits; Replaced the wording ''after reassembly of a tank car'' from Part 180, Subpart F, and ''installed on the tank car'' with ''installed, replaced, or reinstalled on the tank car.''
		Paragraph (l)	Minor edits.
		Paragraph (m)	After 12/2010 the requirements of paragraph (m) should have been fulfilled. There may be late tank cars or tank cars with extended alternate inspection intervals; therefore, this provision will be retained for an additional 5–10 years.
5	*180.511*		Added minor edits; included those in Part 180, Subpart F, to capture requirements for qualifying service equipment.

Number	Section No.	Proposed change to 49 CFR Part 180	Proposed change from DOT–SP 12095
6	*180.513*	Paragraph (a)	Reworded to encompass the whole AAR Tank Car Manual rather than certain appendices.
		Paragraph (b)	Added for clarification and as a reminder that tank car or component owners are responsible for verifying compliance with the owner's maintenance instructions.
		Paragraph (c)	Is the same language as existing paragraph (b) from DOT–SP 12095. The last sentence was added for clarification.
7	*180.515*	Paragraph (a)	Added last sentence to clarify the primacy of dates marked in Appendix C of the AAR Tank Car Manual.
8	*180.517*		Revised to clarify that marking or retaining the specification on the tank, either after initial construction in paragraph (a) or subsequent qualification in paragraph (b), is the ''representation'' of ''qualification'' defined in § 180.503.

IV. Rulemaking Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the authority of 49 U.S.C. 5103(b) which authorizes the Secretary to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. 49 U.S.C. 5117(a) authorizes the Secretary of Transportation to issue a special permit from a regulation prescribed in §§ 5103(b), 5104, 5110, or 5112 of the Federal Hazardous Materials Transportation Law to a person transporting, or causing to be transported, hazardous material in a way that achieves a safety level at least equal to the safety level required under the law, or consistent with the public interest, if a required safety level does not exist. This final rule will amend the regulations incorporating provisions from certain widely used and longstanding special permits that have established a history of safety and convert them into regulations for general use.

B. Executive Order 12866, Executive Order 13563, and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) and was not reviewed by the Office of Management and Budget (OMB). The final rule is not considered a significant rule under the Regulatory Policies and Procedures order issued by the Department of Transportation [44 FR 11034].

Executive Orders 12866 (''Regulatory Planning and Review'') and 13563 (''Improving Regulation and Regulatory Review'') require agencies to regulate in the ''most cost-effective manner,'' to make a ''reasoned determination that the benefits of the intended regulation justify its costs,'' and to develop regulations that ''impose the least burden on society.'' In this final rule, PHMSA will amend the HMR by incorporating alternatives this agency has permitted under widely used and longstanding special permits with established safety records that we have determined meet the safety criteria for inclusion in the HMR. Incorporating these special permits into regulations of general applicability will provide shippers and carriers with additional flexibility to comply with established safety requirements, thereby reducing transportation costs and increasing productivity.

Some of the provisions in this final rule clarify existing responsibilities under the HMR, such as provisions incorporated by reference under the AAR's Specifications for Tank Cars or a shipper's responsibility to ensure a packaging, in this case a tank car and its coating or lining, if applicable, is compatible with the material it contains. Others clarify responsibilities that existed only in the special permits and are being incorporated into the HMR through this final rule, such as the TCQ–1 inspection criteria. Still other provisions in this final rule were added in response to requests from commenters for safer procedures, clarification, or were revised to convert them into regulations of general applicability, such as adding: Requirements that tank car and coating/lining owners develop requirements for repairs, alterations, etc., and users comply with these requirements; an industry accepted corrosion rate to the definition for ''corrosive to the tank or service equipment;'' and, definitions for user clarity such as the new definitions for ''inspection and test'' and ''tank car tank.'' Because of these revisions, some members of the hazardous materials rail transportation industry may be unaware of some of the changes in this final rule and may experience short-term costs to implement them. However, we believe these costs will be offset by long-term savings and safety benefits from using regulations that are less burdensome overall, ensure better tank car integrity and performance, and provide greater flexibility and clarity than the provisions currently prescribed in the HMR. Further, a large majority of tank car owners who are parties to DOT–SP 12095 have developed written procedures or purchased them from a builder or management company like Alltranstek. The minority of tank car owners who choose to not purchase these procedures may experience an expense developing them. However, they also have the option of approving the procedures of the tank car facility performing the inspections and/or repairs; as a result, their costs should be negligible.

Under § 179.24, the FRA notes that all the tank car builders are parties to DOT–SP 12905; therefore the work prescribed under § 179.24 is already being performed and the 30-day effective date also prescribed in this requirement is probably not necessary.

With regard to § 180.509(g), the FRA notes that there are approximately 370 DOT Class 115 specification tank cars in existence, based on 2010 numbers, and this is a very small percentage of the entire tank car fleet. Further, the FRA states these tank cars are hydrostatically tested in lieu of the structural integrity test, and there is little cost difference between these tests. The FRA also states we cannot know all the acceptance criteria currently used to inspect and test service equipment under § 180.511(h), so the costs associated with these tasks are difficult to quantify, but the FRA believes those facilities that were pressure testing the valve rather than ''disassembling and inspecting'' may experience a cost increase of $100.00 to $200.00, which may be considerable, to perform the latter type of inspection. In addition, the FRA states a valve rebuild, depending on its condition, could also increase costs

along with the rate of valve replacement.

Under § 180.509, depending on the work required, the FRA notes most work performed on DOT specification tank cars and tank cars transporting regulated commodities must be done by registered or certified facilities. Also, the HMR cover work that must be performed by registered or certified facilities. As a result, the FRA has determined distinguishing between work performed at registered or certified facilities and those facilities that do not have either one of these designations would result in little, if any, cost implications.

Under § 180.513, the FRA notes the time needed to perform the tasks prescribed in the new requirements and their costs may increase a little initially but should result in tank cars being sent to approved facilities over time. Historically, the FRA has found work performed on tank cars at approved facilities has resulted in improvements in their safe performance. Also, the FRA notes a tank car and its service equipment must successfully pass the leak test prescribed in § 180.509(j) prior to the release of a tank car from a repair facility.

Under § 180.515(a), the FRA notes tank car owners must now ensure the stencils on their cars are accurate to avoid civil penalties resulting from the discovery of violations during inspections; however, this provision should result in no additional costs because new regulations in this final rule require those performing tank car work that requires stenciling (e.g., alteration, conversion, repair, or qualification of the owner's equipment) to obtain the tank car owner's permission before performing that work and to inform the owner of required test results.

Under § 180.517(b), the FRA's inspection authority currently affords its staff access to this information. As a result, the regulations prescribed for this section should result in no additional costs.

The commenters did not discuss environmental impact issues in their comments. In addition, the provisions in this final rule will reduce the paperwork burden on industry and this agency caused by continued renewals of special permits. The provisions of this final rule will promote the continued safe transportation of hazardous materials while reducing transportation costs for the industry and administrative costs for the agency. Therefore, the requirements of Executive Orders 12866 and 13563, and the DOT policies and procedures concerning these orders have been satisfied.

C. Executive Order 13132

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule will preempt state, local and Indian 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 governments. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply. Federal hazardous material transportation law, 49 U.S.C. 5101, et seq., contains an express preemption provision (49 U.S.C. 5125(b)) preempting state, local and Indian tribe requirements on certain covered subjects. Covered subjects are:

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

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

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

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

(5) The designing, manufacturing, fabricating, marking, maintaining, reconditioning, repairing, or testing of a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

This final rule addresses covered subject items (2), (3), and (5) and will preempt any State, local, or Indian tribe requirements not meeting the ''substantively the same'' standard. Federal hazardous materials transportation law provides at 49 U.S.C. 5125(b)(2) that if PHMSA issues a regulation concerning any of the covered subjects, PHMSA must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. PHMSA has determined the effective date of federal preemption be 90 days from publication of a final rule in this matter in the **Federal Register.**

D. Executive Order 13175

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

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

The Regulatory Flexibility Act (5 U.S.C. 601–611) requires each agency to analyze regulations and assess their impact on small businesses and other small entities to determine whether the rule is expected to have a significant impact on a substantial number of small entities. This final rule will amend the HMR to incorporate provisions contained in seven widely used or longstanding railroad special permits that have an established safety record. Although many of the applicants may be small businesses or other small entities, PHMSA believes that the amendments in this final rule will provide wider access to the regulatory flexibility offered in special permits and eliminate the need for numerous renewal requests, thus reducing paperwork burdens and facilitating commerce while maintaining an appropriate level of safety. Therefore, PHMSA certifies that the provisions of this final rule will not have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that the impacts of final rules on small entities are properly considered.

F. Paperwork Reduction Act

PHMSA has approved information collections under OMB Control Number 2137–0051, ''Rulemaking, Special Permits, and Preemption Requirements,'' OMB Control Number 2137–0557, ''Approvals for Hazardous Materials,'' and OMB Control Number 2137–0559, ''(Rail Carriers and Tank Car Requirements) Requirements for Rail Tank Cars—Transportation of Hazardous Materials by Rail.'' This final rule may result in a decrease in the annual burden and costs under OMB Control Number 2137–0051 and an increase in the annual burden and costs under OMB Control Number 2137–0557 and OMB Control Number 2137–0559 over time due to amendments to incorporate provisions contained in

certain widely used or longstanding special permits that have an established safety record.

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

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

OMB Control No. 2137–0051:

Decrease in Annual Number of Respondents: 255
Decrease in Annual Responses: 255
Decrease in Annual Burden Hours: 255
Decrease in Annual Burden Costs: $9,500

OMB Control No. 2137–0557:

Increase in Annual Number of Respondents: 200
Increase in Annual Responses: 200
Increase in Annual Burden Hours: 50
Increase in Annual Burden Costs: $1,100

OMB Control No. 2137–0559:

Increase in Annual Number of Respondents: 350
Increase in Annual Responses: 350
Increase in Annual Burden Hours: 525
Increase in Annual Burden Costs: $15,750

G. Regulation Identifier Number (RIN)

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

H. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $141.3 million or more to either state, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), and implementing regulations by the Council on Environmental Quality (40 CFR Part 1500) require Federal agencies to consider the consequences of Federal actions and prepare a detailed statement on actions that significantly affect the quality of the human environment.

The hazardous materials regulatory system is a risk management system that is prevention oriented and focused on identifying a hazard and reducing the probability and quantity of a hazardous materials release. This rulemaking is concerned with the transportation of hazardous materials by rail, but is prepared with the understanding that these materials are often transported by aircraft, vessel, and highway before or after they are transported by rail. The need for hazardous materials to support essential services means transportation of highly hazardous materials is unavoidable. However, these shipments frequently move through densely populated or environmentally sensitive areas where the consequences of an incident could be loss of life, serious injury, or significant environmental damage. The ecosystems that also could be affected by a hazardous materials release during transportation include atmospheric, aquatic, terrestrial, and vegetal resources (for example, wildlife habitats). The adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be greatly reduced or eliminated through prompt clean-up of the incident scene. On August 18, 2011, we issued a NPRM in which we requested information on the potential environmental impacts of the proposals.

In all modes of transport, the potential for environmental damage or contamination exists when packages of hazardous materials are involved in transportation incidents. Most of the special permits considered in this rulemaking involve bulk packages of hazardous materials in DOT specification and non-specification tank cars. While the volume of hazardous material present in these packagings has the potential to be released into the environment during a transportation incident, these packagings are constructed to withstand greater forces during impact and are also equipped with safety relief devices and valves specifically designed to maintain the containment ability of the tank car.

The purpose and need of this rulemaking is to incorporate widely used special permits or those with an established safety record into the HMR for universal use. More information about benefits of this final rulemaking action can be found in the preamble (i.e., ''Overview of Proposed Amendments'') to this rulemaking. The alternatives considered in the analysis include (1) The proposed action, that is, incorporation of the proposed special permits as amendments to the HMR; (2) incorporation of some subset of the proposed special permits (i.e., only some of the proposed special permits) as amendments to the HMR; and (3) the ''no action'' alternative, meaning that none of the proposed special permits would be incorporated into the HMR. In considering the potential environmental impacts of this final rulemaking action, PHMSA does not anticipate that the incorporation of the listed special permits will result in any significant impact on the human environment because the process through which special permits are issued requires the applicant to demonstrate that the alternative transportation method or packaging proposed provides an equivalent level of safety as that provided in the HMR. Further, the commenters did not discuss environmental impact issues in their comments.

The agencies and persons consulted in the development of this final rule include the International Vessel Operators Hazardous Materials Association, Inc.; Gold Tank Inspection Services, Inc.; Surface Deployment and Distribution Command (SDDC); Conrail; Agrium N.A. Wholesale Transportation Compliance; Koch Nitrogen Company; Columbiana Boiler Company; and subject matter expert staff in FRA and PHMSA.

This final rule will amend the HMR to incorporate provisions contained in certain widely used or longstanding railroad special permits that have an established safety record. As a result, incorporating its provisions into the HMR will increase the safety and environmental protections for transporting the materials previously covered under these special permits. Because OMB determined this final rule is non-significant, no RIA is required. Further, the cost assumptions in this final rule originated from industry or FRA experience, and we consider them to be reasonable. In addition, in this final rule we have responded to the cost concerns presented by the commenters and mitigated them wherever possible. Based on this analysis, we have determined that the requirements

adopted in this final rule will not have a significant economic impact on a substantial number of small entities.

J. Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70, pages 19477–78), or at *http://www.regulations.gov.*

List of Subjects

49 CFR Part 171

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

49 CFR Part 172

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

49 CFR Part 173

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

49 CFR Part 174

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

49 CFR Part 179

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

49 CFR Part 180

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

In consideration of the foregoing, we amend 49 CFR Chapter I as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

■ 1. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.45 and 1.53; Pub. L. 101–410 section 4 (28 U.S.C. 2461 note); Pub. L. 104–134 section 31001.

■ 2. In the ''Table of material incorporated by reference,'' at § 171.7(a)(3), for the entry ''AAR Manual of Standards and Recommended Practices, Section C-Part III, Specifications for Tank Cars, Specification M–1002, (AAR Specifications for Tank Cars), December 2000, the reference to § 174.63 is removed.

■ 3. In § 171.8, the new definitions for ''Electronic data interchange'' and ''Train consist'' are added in alphabetical order to read as follows:

§ 171.8 Definitions and abbreviations.

* * * * *

Electronic data interchange (EDI) means the computer-to-computer exchange of business data in standard formats. In EDI, information is organized according to a specific format (electronic transmission protocol) agreed upon by the sender and receiver of this information, and transmitted through a computer transaction that requires no human intervention or retyping at either end of the transmission.

* * * * *

Train consist means a written record of the contents and location of each rail car in a train.

* * * * *

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

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

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

■ 5. In § 172.201, revise paragraph (a)(2) and paragraph (a)(5) is added to read as follows:

§ 172.201 Preparation and retention of shipping papers.

(a) * * *

(2) The required shipping description on a shipping paper and all copies of the shipping paper used for transportation purposes must be legible and printed (manually or mechanically) in English.

* * * * *

(5) *Electronic shipping papers.* For transportation by rail, a rail carrier may accept shipping paper information either telephonically (i.e., voice communications and facsimiles) or electronically (EDI) from an offeror of a hazardous materials shipment in accordance with the provisions in paragraphs (a)(5)(i)–(a)(5)(iv) of this section. See § 171.8 for the EDI definition.

(i) When the information applicable to the consignment is provided under this requirement the information must be available to the offeror and carrier at all times during transport, and the carrier must have and maintain a printed copy of this information until delivery of the hazardous materials on the shipping paper is complete. When a paper document is produced, the data must be presented as required by this subpart.

(ii) The offeror must forward the shipping paper (record) for a loaded movement to the carrier prior to shipment unless the carrier prepares the shipping paper on behalf of the offeror. The offeror is only relieved of the duty to forward the shipping paper once the offeror has received a copy of the shipping paper from the carrier;

(iii) A carrier that generates a residue shipping paper using information from the previous loaded movement of a hazardous materials packaging must ensure the description of the hazardous material that accompanies the shipment complies with the offeror's request; and

(iv) *Verification.* The carrier and the offeror must have a procedure by which the offeror can verify accuracy of the transmitted hazard communication information that will accompany the shipment.

* * * * *

■ 6. In § 172.202, add a new sentence to the end of paragraph (b) to read as follows:

§ 172.202 Description of hazardous material on shipping papers.

* * * * *

(b) * * * Shipping descriptions for hazardous materials offered or intended for transportation by rail that contain all the information required in this subpart and that are formatted and ordered in accordance with recognized electronic data interchange standards and, to the extent possible, in the order and manner required by this subpart are deemed to comply with this paragraph.

* * * * *

■ 7. In § 172.204, in paragraph (a) introductory text, add a new sentence at the end of the paragraph, and add new paragraphs (a)(3) and (d)(3) to read as follows:

§ 172.204 Shipper's certification.

(a) * * * For transportation by rail only, the certification may be received verbally or with an electronic signature

in conformance with paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

* * * * *

(3) *Rail only certifications.* For transportation by rail, the shipping paper certification may also be accomplished by one of the following methods:

(i) *Verbal Certification.* When received telephonically, by the carrier reading the complete shipping description that will accompany the shipment back to the offeror and receiving verbal acknowledgment that the description is as required. This verbal acknowledgement must be recorded, either on the shipping document or in a separate record, e.g., the waybill, in accordance with § 174.24, and must include the date and name of the person who provided this information; or

(ii) *Electronic Signature Certification.* When transmitted electronically, by completing the field designated for the shipper's signature, the shipper is also certifying its compliance with the certification specified in § 172.204(a).'' The name of the principal partner, officer, or employee of the offeror or their agent must be substituted for the asterisks;

* * * * *

(d) * * *

(3) For transportation by rail, when transmitted by telephone or electronically, the signature must be in one of the following forms: The name of the principal person, partner, officer, or employee of the offeror or his agent in a computer field defined for that purpose.

■ 8. In § 172.604, paragraphs (a) introductory text and (a)(3)(ii) are revised to read as follows:

§ 172.604 Emergency response telephone number.

(a) A person who offers a hazardous material for transportation must provide an emergency response telephone number, including the area code, for use in an emergency involving the hazardous material. For telephone numbers outside the United States, the international access code or the ''+'' (plus) sign, country code, and city code, as appropriate, that are needed to complete the call must be included. The telephone number must be—

* * * * *

(3) * * *

(ii) Entered once on the shipping paper in the manner prescribed in paragraph (b) of this section in a prominent, readily identifiable, and clearly visible manner that allows the information to be easily and quickly found, such as by highlighting, use of a larger font or a font that is a different color from other text and information, or otherwise setting the information apart to provide for quick and easy recognition. The offeror may use one of the methods prescribed in this paragraph only if the telephone number applies to each hazardous material entered on the shipping paper, and if it is indicated that the telephone number is for emergency response information (for example: ''EMERGENCY CONTACT: * * *'').

* * * * *

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

■ 9. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.45, 1.53.

■ 10. In § 173.314, revise paragraphs (e) and (k) to read as follows:

§ 173.314 Compressed gases in tank cars and multi-unit tank cars.

* * * * *

(e) *Verification of content.* (1) The amount of liquefied gas loaded into each tank may be determined either by measurement or calculation of the weight, except that DOT specification tank car tanks authorized for the transportation of anhydrous ammonia and ammonia solution may have the amount of liquefied gas loaded into the tank car measured by a metering device in conformance with paragraph (e)(2) of this section.

(2) *Metering device.* (i) Tank cars loaded with anhydrous ammonia or ammonia solution through the use of a metering device in conformance with this section are not required to be weighed, but must have their outage measured with a magnetic gauging device to determine that the tank car is properly loaded in conformance with this paragraph. Written procedures for loading a tank car using a metering device must be developed and made available at each location where such loading takes place. Certification in writing of the inspection and completion of these loading and/or unloading procedures must be maintained for each tank car and maintained in accordance with the recordkeeping requirements in paragraph (e)(2)(iii) of this section, and all necessary records must be completed. At a minimum, these procedures will specify:

(A) The tank car must be offered for transportation in conformance with all applicable government regulations.

(B) Any defects found when the tank car is examined before shipping must be recorded, and the tank must not be loaded until the repairs to eliminate each defect are completed.

(C) The tank car must be allowed to sit undisturbed for at least 10 minutes after loading to allow material within the tank to settle. After this has occurred a final check for leaks must be conducted prior to offering the tank car for transportation.

(ii) One out of every 10 tank cars loaded by the use of the metering device must be gauged utilizing the fixed gauging equipment on the tank car to verify by calculation the amount of anhydrous ammonia or ammonia solution contained in the tank car.

(iii) *Recordkeeping.* The following information must be maintained and be made available to any representative of the DOT upon request for each tank car loaded with the use of a metering device:

(A) Date loaded,

(B) Date shipped,

(C) Tank car reporting marks,

(D) DOT Specification,

(E) Tank car stenciled shell capacity (gallons/liters),

(F) Tank car stenciled tare weight (pounds/kilograms),

(G) Outage or innage table number,

(H) Water capacity of tank in pounds and/or kilograms,

(I) Maximum permitted filling density (see § 173.314),

(J) Specific gravity of anhydrous ammonia or ammonia solution at the reference temperature,

(K) Tank car outage (inches/meters, gallons/liters),

(L) Gallons/liters of liquid ammonia in tank car,

(M) Quantity of vapor ammonia in tank car (gallons/liters), and

(N) Total calculated ammonia (liquid & vapor) in tank car (pounds/kilograms).

* * * * *

(k) *Special requirements for chlorine.* (1) Tank cars built after September 30, 1991, must have an insulation system consisting of 5.08 cm (2 inches) glass fiber placed over 5.08 cm (2 inches) of ceramic fiber. Tank cars must have excess flow valves on the interior pipes of liquid discharge valves. Tank cars constructed to a DOT 105A500W specification may be marked as a DOT 105A300W specification with the size and type of reclosing pressure relief valves required by the marked specification.

(2) DOT105J500W tank cars may be used as authorized packagings, as prescribed in this subchapter for transporting ''Chlorine, 2.3 (8), UN

1017, Poison Inhalation Hazard, Zone B, RQ,'' if the tank cars meet all DOT specification requirements, and the tank cars are equipped with combination safety relief valves with a start-to-discharge pressure of 360 psi, rather than the 356 psi. The start-to-discharge pressure setting must be marked on the pressure relief device in conformance with applicable provisions of the AAR Specification for Tank Cars (IBR, see § 171.7 of this subchapter).

* * * * *

PART 174—CARRIAGE BY RAIL

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

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

■ 12. In § 174.63(c)(2) is revised to read as follows:

§ 174.63 Portable tanks, IM portable tanks, IBCs, cargo tanks, and multi-unit tank car tanks.

* * * * *

(c) * * *

(2) The tank and flatcar must comply with the applicable requirements of the HMR concerning their specification.

* * * * *

PART 179—SPECIFICATIONS FOR TANK CARS

■ 13. The authority citation for part 179 is revised to read as follows:

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

■ 14. In § 179.13, paragraph (b) is revised to read as follows:

§ 179.13 Tank car capacity and gross weight limitation.

* * * * *

(b) Tank cars containing poisonous-by-inhalation material meeting the applicable authorized tank car specifications listed in § 173.244(a)(2) or (3), or § 173.314(c) or (d) may have a gross weight on rail of up to 286,000 pounds upon approval by the Associate Administrator for Railroad Safety, FRA. Tank cars exceeding 263,000 pounds and up to 286,000 pounds gross weight on rail must meet the requirements of AAR Standard S–286, Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars (IBR, see § 171.7 of this subchapter). Any increase in weight above 263,000 pounds may not be used to increase the quantity of the contents of the tank car.

■ 15. In Subpart B, new § 179.24 is added to read as follows:

§ 179.24 Stamping.

(a)(1) After July 25, 2012, to certify compliance with federal requirements, the tank manufacturer must install two identical permanent identification plates, one located on both inboard surfaces of the body bolsters of the tank car. One identification plate must be installed on the right side (AR) of the tank car, and the other must be installed on the back end left side (BL) body bolster webs so that each plate is readily accessible for inspection. The plates must be at least 3/32 inch thick and manufactured from corrosion resistant metal. When the tank jacket (flashing) covers the body bolster web and identification plates, additional identical plates must be installed on the AR and BL corners of the tank in a visible location. Tank cars built before July 25, 2012, may have the plate instead of or in addition to the stamping.

(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, and the AAR form reference is to the applicable provisions of the AAR Specifications for Tank Cars, December 2000 edition (IBR, see § 171.7 of this subchapter)):

(i) *Tank Manufacturer (Tank MFG):* Full name of the car builder as shown on the certificate of construction (AAR form 4–2).

(ii) *Tank Manufacturer's Serial Number (SERIAL NO):* For the specific car.

(iii) *AAR Number (AAR NO):* The AAR number from line 3 of AAR Form 4–2.

(iv) *Tank Specification (SPECIFICATION):* The specification to which the tank was built from line 7 of AAR form 4–2.

(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 from lines 15 and 16 of AAR Form 4–2. 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):* The design from Line 32 of AAR Form 4–2.

(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.

(3) When a modification to the tank changes any of the information shown in paragraph (a)(2) of this section, the car owner or the tank car facility making the modification must install an additional variable identification plate on the tank in accordance with paragraph (a)(1) of this section showing the following information:

(i) *AAR Number (AAR NO):* The AAR number from line 3 of AAR Form 4–2 for the alteration or conversion.

(ii) All items of paragraph (a)(2) of this section that were modified, followed by the month and year of modification.

(b) [Reserved].

■ 16. In § 179.100–20, add paragraph (b) to read as follows:

§ 179.100–20 Stamping.

* * * * *

(b) After July 25, 2012, newly constructed DOT tank cars must have their DOT specification and other required information stamped plainly and permanently on stainless steel identification plates in conformance with the applicable requirements prescribed in § 179.24(a). Tank cars built before July 25, 2012, may have the identification plates instead of or in addition to the head stamping.

■ 17. In § 179.200–24, new paragraph (c) is added to read as follows:

§ 179.200–24 Stamping.

* * * * *

(c) After July 25, 2012, newly constructed DOT tank cars must have their DOT specification and other required information stamped plainly and permanently on stainless steel identification plates in conformance with the applicable requirements prescribed in § 179.24(a). Tank cars built before July 25, 2012, may have the identification plates instead of or in addition to the head stamping.

■ 18. In § 179.201–10, add paragraph (b) to read as follows:

§ 179.201–10 Water capacity marking.

* * * * *

(b) After July 25, 2012, authorized DOT non-pressure tank cars that comply with this section and are equipped with stainless steel identification plates may have the water capacity of the tank in pounds prescribed in the first sentence of paragraph (a) of this section stamped plainly and permanently on their identification plate in conformance with the applicable marking requirements

prescribed in § 179.24(a) instead of into the metal of the tank or immediately below the stamped marks specified in § 179.200–24(a).

■ 19. In § 179.220–25, redesignate the introductory paragraph as paragraph (a), and new paragraph (b) is added to read as follows:

§ 179.220–25 Stamping.

* * * * *

(b) After July 25, 2012, newly constructed DOT tank cars must have their DOT specification and other required information stamped plainly and permanently on stainless steel identification plates in conformance with the applicable requirements prescribed in § 179.24(a). Tank cars built before July 25, 2012, may have the identification plates instead of or in addition to the head stamping.

■ 20. In § 179.300–13, paragraph (b) is revised to read as follows:

§ 179.300–13 Venting, loading and unloading valves.

* * * * *

(b) Threads for openings must be National Gas Taper Threads (NGT) tapped to gauge, clean cut, even and without checks. Taper threads must comply with § 178.61(h)(3)(i) and (h)(3)(ii). Threads for the clean-out/inspection ports of DOT Specification 110A multi-unit tank car tanks may be straight threads instead of taper threads. The straight threads must meet the requirements of § 178.61(h)(3)(i) and (h)(3)(iii). Hex plugs may be secured to threaded boss ports using stainless steel safety wire that must not fail during its intended use.

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

■ 21. The authority citation for part 180 continues to read as follows:

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

■ 22. In § 180.501, paragraph (a) is revised, paragraph (b) is redesignated as paragraph (c), and new paragraphs (b) and (d) are added to read as follows:

§ 180.501 Applicability.

(a) This subpart prescribes requirements, in addition to those contained in parts 107, 171, 172, 173, 174, and 179 of this subchapter, applicable to any person who manufactures, fabricates, marks, maintains, repairs, inspects, or services tank cars to ensure continuing qualification.

(b) This subpart also establishes the minimum acceptable framework for an owner's qualification 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 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 program in their quality assurance program, as required under § 179.7(a)(2), (b)(3), (b)(5), and (d).

* * * * *

(d) Where, in this subpart, a person is required to make documents available to FRA upon request, such request means that credentialed FRA personnel or an authorized representative of the Department may view the documents and make copies of them. The document owner's may seek confidential treatment of the documents presented. See § 105.30.

■ 23. Revise § 180.503 to read as follows:

§ 180.503 Definitions.

The following definitions and those contained in §§ 171.8 and 179.2 of this subchapter apply:

Coating/lining owner means the person with the financial responsibility for purchasing and maintaining the integrity of the interior coating or lining.

Corrosive to the tank or service equipment means a material identified in Appendix D of this part or a material when in contact with the inner shell of the tank or service equipment has a corrosion rate on steel greater than 2.5 milli-inch per year (mpy) (0.0025 inch per year).

Defects mean abrasions; corrosion; cracks; dents; flaws in welds; distortions; erosion; missing, damaged, leaking or loose components and fasteners; and other conditions or imperfections that may make a tank car unsafe for transportation and/or require it to be removed from service.

Design level of reliability and safety means the level of reliability and safety built into the tank car and, therefore, inherent in its specification, design, and manufacture.

Inspection and test means a careful and critical examination of a tank car and its appurtenances performed by qualified personnel following the owner's qualified procedures.

Interior heater system means a piping system located within the tank shell that uses a fluid medium to heat the lading for the purposes of unloading.

Maintenance means upkeep, or preservation, including repairs necessary and proper to ensure an in-operation tank car's specification until its next qualification.

Modification means any change to a tank car that affects the certificate of construction prescribed in § 179.5, including an alteration prescribed in § 179.6, or conversion.

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 tank car or a class or design of tank cars may be in an unsafe operating condition.

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 applicable requirements of the AAR Tank Car Manual (IBR, see § 171.7 of this subchapter), and to the owner's acceptance criteria. Qualification is accomplished by careful and critical examination that verifies conformance using inspections and tests based on a written program approved by the tank car owner followed by a written representation of that conformance. A tank car that passes the appropriate tests for its specification, has a signed test report, is marked to denote this passage, and is considered qualified for hazardous materials transportation under this subchapter.

Qualification of	Tests and inspections	§ 180.509(*)
Tank	Visual Inspection	d
	Structural Integrity Inspection	e
	Thickness Test: Note 1	f
	Safety System Inspection	h
Service Equipment	Service Equipment	k

Qualification of	Tests and inspections	§ 180.509(*)
Coating/lining	Internal Coatings and Linings	i

Note 1: Subparagraph (f)(2) may require thickness tests at an interval different from the other items for qualification of the tank.

Railworthy, Railworthiness for a tank car means that the tank, service equipment, safety systems, and all other components covered by this subchapter conform to the HMR, and are otherwise suitable for continued service and capable of performing their intended function until their next qualification.

Reactive to the tank or service equipment means a material that, in contact with the inner shell of the tank, or with the service equipment, may react to produce heat, gases, and/or pressure which could substantially reduce the effectiveness of the packaging or the safety of its use.

Reinforced tank shell butt weld means the portion of a butt weld covered by a reinforcing pad.

Reinforcing pad means an attachment welded directly to the tank supporting major structural components for the purpose of preventing damage to the tank through fatigue, overstressing, denting, puncturing, or tearing.

Reliability means the quantified ability of an item or structure to operate without failure for the specified period of its design life or until its next qualification.

Representation means attesting through documenting, in writing or by marking on the tank (or jacket), that a tank car is qualified and railworthy. See also §§ 180.511 and 180.517(b).

Safety system means one or more of the following: Thermal protection systems, insulation systems, tank head puncture resistance systems, coupler vertical restraint systems, and systems used to protect discontinuities (e.g., skid protection and protective housings) as required under this subchapter.

Service equipment means equipment used for loading and unloading (including an interior heating system), sampling, venting, vacuum relief, pressure relief, and measuring the amount of lading or the lading temperature.

Service equipment owner means the party responsible for bearing the cost of the maintenance of the service equipment.

Tank car owner means the person to whom a rail car's reporting marks are assigned, as listed in the Universal Machine Language Equipment Register (UMLER).

Tank car tank means the shell, heads, tank shell and head weld joints, attachment welds, sumps, nozzles, flanges, and all other components welded thereto that are either in contact with the lading or contain the lading.

Train consist means a written record of the contents and location of each rail car in a train.

§ 180.507 [Amended]

■ 24. In § 180.507, remove paragraph (b)(2).

§ 180.509 [Amended]

■ 25. Amend § 180.509 as follows:

■ a. Add, (f)(3), (f)(4), (f)(5), (f)(6), (i)(2) and (i)(3);

■ b. Revise paragraphs (a), (b), (c)(3), (d), (e), (f), (g), (h), (i), and (j);

■ c. Redesignate paragraph (l) as paragraph (m), redesignate paragraph (k) as paragraph (l), revise the newly redesignated paragraph (l), and add a new paragraph (k).

§ 180.509 Requirements for qualification of specification tank cars.

(a) *General.* Each tank car owner must ensure that a tank car facility:

(1) Inspects and tests each item according to the requirements specified in this section;

(2) Evaluates each item according to the acceptable results of inspections and tests specified in § 180.511;

(3) Marks each tank car as specified in § 180.515 that is qualified to transport hazardous materials;

(4) Prepares the documentation as required by § 180.517 for each item qualified under this section. A copy of the documentation required by § 180.517 must be sent to the owner as appropriate and according to the owner's instructions.

(b) *Conditions requiring qualification of tank cars.* Without regard to the qualification compliance date requirements of any paragraph of this section, an owner of a tank car or an internal coating or lining must ensure an appropriate inspection and test according to the type of defect and the type of maintenance or repair performed if:

(1) The tank car shows evidence of abrasion, corrosion, cracks, dents, distortions, defects in welds, or any other condition that may make the tank car unsafe for transportation,

(2) The tank car was in an accident and shows evidence of damage to an extent that may adversely affect its capability to retain its contents or to otherwise remain railworthy.

(3) The tank bears evidence of damage caused by fire. (4) The Associate Administrator for Railroad Safety, FRA, requires it based on the existence of an objectively reasonable and articulable belief that a tank car or a class or design of tank cars may be in an unsafe operating condition.

(c) * * *

(3) Fusion welded tank cars must be inspected and tested to be qualified and maintained in accordance with the following table. All qualification requirements need not be done at the same time or at the same facility.

FREQUENCY OF QUALIFICATION INSPECTION AND TESTS

Section 180.509(*)	Description	Maximum interval
D	Visual inspection	10 years.
E	Structural integrity inspection	10 years.
F	Thickness test	See § 180.509(f).
H	Safety Systems	10 years.
I	Internal coating or lining (for materials corrosive or reactive to the tank) (See definitions at § 180.503).	See § 180.509(i).
J	Leakage pressure test	After reassembly.
K	Service equipment (including pressure relief device)	See § 180.509(k).

(d) *Visual inspection.* At a minimum, each tank car facility must visually inspect the tank externally and internally as follows:

(1) An internal inspection of 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, and except in the areas where insulation or a thermal protection system precludes it, an external inspection of 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, and for DOT 115 class tank cars, an internal inspection of the inner container and external inspection of the outer shell and heads for defects in welds, or any other condition that may make the tank car unsafe for transportation;

(2) When an internal coating or lining, head protection, insulation, or thermal protection is removed in part or in whole, the internal and external exposed surface of the tank must be visually inspected for defects in welds or any other condition that may make the tank car unsafe for transportation, and this inspection must precede any application or reapplication of a coating or lining;

(3) An inspection of the service equipment, including gaskets, for indications of corrosion and other conditions that may make the tank car unsafe for transportation;

(4) An inspection for missing or loose bolts, nuts, or elements that may make the tank car unsafe for transportation;

(5) An inspection of all closures on the tank car for conditions that may make the tank car unsafe for transportation, including an inspection of the protective housings for proper condition;

(6) An inspection of excess flow valves with threaded seats for tightness; and

(7) An inspection of the required markings on the tank car for legibility.

(e) *Structural integrity inspections and tests.* (1) Each tank car owner must ensure the structural elements on the tank car qualify with the applicable requirements of this subchapter. At a minimum, the structural integrity inspection and test must include:

(i) All transverse fillet welds greater than 0.64 cm (0.25 inch) within 121.92 cm (4 feet) of the bottom longitudinal centerline except body bolster pad attachment welds;

(ii) The termination of longitudinal fillet welds greater than 0.64 cm (0.25 inch) within 121.92 cm (4 feet) of the bottom longitudinal centerline; and

(iii) The tank shell butt welds within 60.96 cm (2 feet) of the bottom longitudinal centerline, unless the tank car owner can determine by analysis (e.g., finite element analysis, damage-tolerance analysis, or service reliability assessment) that the structure will not develop defects that reduce the design level of safety and reliability or fail within its operational life or prior to the next required inspection. The owner must maintain all documentation used to make such determination at its principal place of business and make the data available to FRA or an authorized representative of the Department upon request.

(2) For DOT 115 class tanks, paragraphs (e)(1)(i) through (iii) of this section apply only to the outer shell fillet welds and to the non-reinforced exposed outer shell butt welds.

(3) The inspection requirements of paragraph (e)(1)(iii) of this section do not apply to reinforced tank shell butt welds until the time of lining removal or application for tank cars with an internal lead, glass, or rubber lining.

(4) Each tank car facility must inspect and test the elements identified in paragraph (e)(1) of this section by one or more of the following methods:

(i) Dye penetrant testing (PT);

(ii) Radiographic examination (RT);

(iii) Magnetic particle testing (MT);

(iv) Ultrasonic testing (UT); and

(v) Direct, remote, or enhanced visual inspection, using, for example, magnifiers, fiberscopes, borescopes, and/or machine vision technology (VT).

(f) *Thickness tests.* (1) The tank car owner must ensure that each tank car facility measures the thickness of the tank car shell, heads, sumps, protective housing (i.e., domes), and nozzles on each tank car by using a device capable of accurately measuring the thickness to within ±0.05 mm (±0.002 inch).

(2) The tank car owner must ensure that each tank car has a thickness test measurement:

(i) At the time of an internal coating or lining application or replacement, or

(ii) At least once every ten (10) years for a tank that does not have an internal coating or lining, or

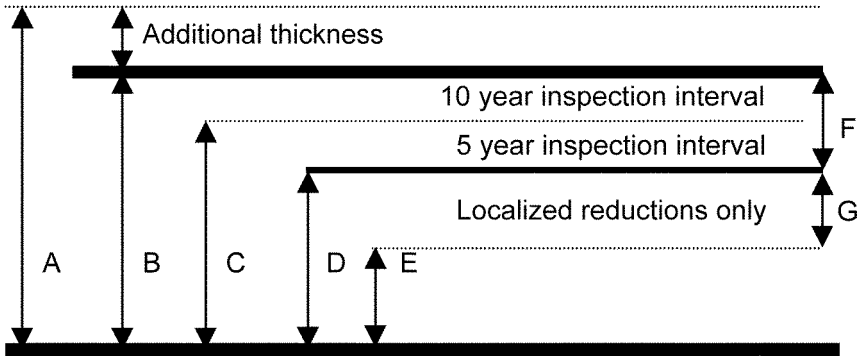
(iii) At least once every five (5) years for a tank that does not have an internal coating or lining when:

(A) The tank is used to transport a material that is corrosive or reactive to the tank (see Appendix D of this part) or service equipment as defined § 180.503, and

(B) The remaining shell and head thickness is tested and determined to be at or below line C in Figure A of this paragraph.

Figure A

Tank and Shell Thickness Qualification Frequencies



Where:

A. As-built tank shell or head thickness with additional thickness.
B. Required minimum tank shell or head thickness after forming per part 179.
C. Inspection frequency adjustment point (design minimum shell or head thickness, minus ½ of the table value in paragraph (g) of this section).
D. Condemning limit for general corrosion (required minimum shell or head thickness, minus the value in paragraph (g) of this section).
E. Condemning limit for localized corrosion (required minimum shell or head thickness, minus the table value in paragraph (g) of this section, minus 1.58 mm (1/16 inch)). See Note 1 in paragraph (g) of this section for diameter limitations and minimum separation distances.
F. Allowable shell or head thickness reduction (table value in paragraph (g) of this section).
G. Additional thickness reduction for localized areas in paragraph (g) of this section.

(3) For a localized repair of an internal coating or lining where a material corrosive to the tank or service equipment as defined § 180.503 has contacted the tank, a qualified individual must verify the coating or lining's conformance with paragraph (g) of this section by measuring the shell or head in the area of the repair. The thickness test applies only to the non-lined or coated repaired area, and is not a qualification event. Modification of the tank stencil is not required.

(4) Operation of a tank car below the condemning limit for general corrosion or the condemning limit for localized corrosion (as shown in Figure A of this section) is prohibited.

(5) For sumps, protective housing (i.e., domes), nozzles, and nozzle reinforcing pads, the tank car owner must determine if any reduction in wall thickness affects the design levels of reliability and safety built into sump, protective housing, nozzle, or nozzle reinforcement. Each tank car owner must maintain at its principal place of business documentation describing the allowable thickness reductions for sumps, protective housings, and nozzles, and nozzle reinforcements. This documentation must be made available to FRA or an authorized representative of the Department upon request.

(6) After repairs, alterations, conversions, modifications, or blasting of tank car that results in a reduction of the tank's thickness, and anytime a tank car coating or lining is removed, a qualified individual must measure the thickness of the tank in the area of reduced thickness to ensure that the thickness of the tank conforms to paragraph (g) of this section.

(g) *Service life thickness allowance.* (1) A tank car found with a thickness below the required minimum thickness after forming for its specification, as stated in part 179 of this subchapter, may continue in service if any reduction in the required minimum thickness is not more than that provided in the following table:

ALLOWABLE SHELL THICKNESS REDUCTIONS

Marked tank test pressure	Top shell and tank head	Bottom shell
60 psig < 200 psig	3.17 mm	1.58 mm.
	1/8 inch	1/16 inch.
≥200 psig	0.79 mm	0.79 mm.
	1/32 inch	1/32 inch.

Note 1. A tank car owner may add an extra 1.58 mm (1/16 inch) to the values in the table for local reductions. Local reductions are those that do not exceed 20.32 linear centimeters (8 linear inches) measured at the longest diameter, and are separated from the other local reductions by at least 40.64 cm (16 inches).

Note 2. Any reduction in the tank car shell thickness may not affect the structural strength of the tank car to the extent that the tank car no longer conforms to the applicable provisions of Section 6.2 of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter).

Note 3. For DOT 115 class tank cars, shell thickness reductions apply only to the outer shell of the tank car. There is no shell or head thickness reduction authorized for the inner tank.

(2) [Reserved]

(h) *Safety system inspections.* Each tank car owner must ensure qualification of the tank car safety systems. However, inspections of foam or cork insulation systems are not required.

(i) *Internal coating and lining inspection and test.* (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 must ensure the lining complies with § 173.24(b)(2) and (b)(3) of this subchapter.

(2) The owner of the internal coating or lining must establish and maintain a record of the service life of the coating or lining and commodity combination, that is, the specific hazardous materials that were loaded into a tank and the coating or lining in place at the time of loading. The owner of the internal coating or lining must use its knowledge of the service life of each coating or lining and commodity combination to establish an appropriate inspection interval for that coating or lining and commodity combination. This interval must not exceed eight (8) years, unless the coating or lining owner can establish, document, and show that the service history or scientific analysis of the coating or lining and commodity pairing supports a longer inspection interval. The owner must maintain at its principal place of business a written procedure for collecting and documenting the performance of the coating or lining applied within the tank car for its service life. The internal coating or lining owner must provide this documentation, including inspection and test, repair, removal, and application procedures, to the FRA or car owner upon request. Further, the offeror must provide commodity information to the car owner and the owner of the internal coating or lining upon request.

(3) The owner of the internal coating or lining must provide the test method and acceptance criteria to the tank car owner and to the person responsible for qualifying the coating or lining. The tank car facility inspecting and testing the internal coating or lining must follow the inspection and test procedure, including the acceptance requirements, established by the internal coating or lining owner.

(j) *Leakage pressure test.* Unless the design of the service equipment arrangement precludes it (e.g., there is no fitting to pressurize the tank), each owner of a tank car must ensure that the tank, service equipment, and closures installed, replaced, or reinstalled on the tank car are leak tested. The test may be conducted with the lading in the tank. When the test pressure exceeds the start-to-discharge or burst pressure of a pressure relief device, the device must be rendered inoperative. The written procedures and test method for leak testing must ensure the sensitivity and reliability of the test method to prevent premature failure. This section does not apply to facilities that remove closures for the sole purpose of loading or unloading the lading (e.g., blind flanges, pipe plugs, etc.).

(k) *Service equipment inspection and test.* (1) Each tank car owner must ensure the qualification of tank car service equipment at least once every ten (10) years. The tank car owner must analyze the service equipment inspection and test results for any given lading and, based on the analysis, adjust the inspection and test frequency to ensure that the design level of reliability and safety of the equipment is met. The owner must maintain at its principal place of business all supporting documentation used to make such analyses and inspection and test frequency adjustments. The supporting documentation must be made available to FRA or an authorized representative of the Department upon request.

(2) Each tank car facility must qualify service equipment, including reclosing pressure relief devices and interior heater systems in accordance with the applicable provisions of Appendix D of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter).

(l) *Alternative inspection and test procedures.* When approved by the Associate Administrator for Railroad Safety, FRA, a tank car owner, or a coating or lining owner may use an alternative inspection and test procedure or interval based on a damage-tolerance analysis (that must include a determination of the probable locations and modes of damage due to fatigue, corrosion, and accidental damage), or based on a service reliability assessment (that must be supported by analysis of systematically collected data) in lieu of the other requirements of this section.

* * * * *

■ 26. In § 180.511, revise the introductory paragraph, paragraph (d) and (g) and paragraph (h) is added to read as follows:

§ 180.511 Acceptable results of inspections and tests.

Provided it conforms to other applicable requirements of this subchapter, a tank car is qualified for use if it successfully passes the inspections and tests set forth below conducted in accordance with this subpart. A representation of that qualification must consist of marking the tank in accordance with § 180.515.

* * * * *

(d) *Safety system inspection.* A tank car successfully passes the safety system inspection when each thermal protection system, tank head puncture resistance system, coupler vertical restraint system, and system used to protect discontinuities (e.g., breakage grooves on bottom outlets and protective housings) on the tank car conform to this subchapter and show no indication of a defect that may reduce reliability before the next inspection and test interval.

* * * * *

(g) *Hydrostatic test.* A Class 107 tank car, the inner tank of a Class 115 tank car, or a riveted tank car successfully passes the hydrostatic test when it shows no leakage, distortion, excessive permanent expansion, or other evidence of weakness that might render the tank car unsafe for transportation service.

(h) *Service equipment.* A tank car successfully passes the service equipment inspection and test when this equipment conforms to this subchapter and applicable provisions of Appendix D of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter), and shows no indication of a defect that may reduce reliability during the qualification interval.

■ 27. Revise § 180.513 to read as follows:

§ 180.513 Repairs, alterations, conversions, and modifications.

(a) To work on tank cars, a tank car facility must comply with the applicable requirements of this subpart, the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter), and the owner's requirements.

(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 or 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 Quality Assurance Program into their own Quality Assurance Program.

(c) Unless the exterior tank car shell or interior tank car jacket has a protective coating, after a repair that requires the complete removal of the tank car jacket, the exterior tank car shell and the interior tank car jacket must have a protective coating applied to prevent the deterioration of the tank shell and tank jacket. Previously applied coatings that still provide effective protection need not be covered over.

(d) After repair, replacement, or qualification of tank car service equipment, the tank service equipment must successfully pass the leak test prescribed in § 180.509(j).

■ 29. In § 180.515, paragraphs (a), (b), and (c) are revised to read as follows:

§ 180.515 Markings.

(a) When a tank car passes the required inspection and test with acceptable results, the tank car facility must mark the date of the inspection and test and due date of the next inspection and test qualified on the tank car in accordance with the applicable provisions of Appendix C of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter). When a tank car facility performs multiple inspections and tests at the same time, one date may be used to satisfy the requirements of this section. One date also may be shown when multiple inspections and tests have the same due date. Dates displayed on the ''consolidated stencil'' (see the applicable provisions of Appendix C of the AAR Specifications for Tank Cars) take precedence over dates modified, and not stenciled, pursuant to interval adjustments for service equipment, linings, and granted alternative inspection intervals.

(b) Converted DOT 105, 109, 112, 114, or 120 class tank cars must have the new specification and conversion date permanently marked in letters and figures at least 0.95 cm (0.375 inch) high on the outside of the manway nozzle or the edge of the manway nozzle flange on the left side of the car. The marking may have the last numeral of the specification number omitted (e.g., ''DOT 111A100W'' instead of ''DOT 111A100W1'').

(c) When qualified within six months of installation and protected from deterioration, the test date marking of a reclosing pressure relief device is the installation date on the tank car.

■ 29. In § 180.517, paragraphs (a) and (b) are revised to read as follows:

§ 180.517 Reporting and record retention requirements.

(a) *Certification and representation.* Each owner of a specification tank car must retain the certificate of construction (AAR Form 4–2) and related papers certifying that the manufacture of the specification tank car identified in the documents is in accordance with the applicable specification. The builder's signature on the certificate of construction 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. The owner 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 applicable provisions prescribed in Section 1.3.15 of the AAR Specifications for Tank Cars (IBR, see § 171.7 of this subchapter) apply. The builder of the car or a facility performing work on the car may retain copies of relevant records.

(b) *Inspection and test reporting.* Each tank car that is inspected and tested as specified in § 180.509 must have a written report, in English, prepared according to this paragraph. Marking the tank car with the specification (or retaining the specification marking on the tank) is the representation that all of the appropriate inspections and tests were performed and the results meet the tank car owner's acceptance criteria to qualify the car for continued use. The report may be created and retained electronically, but, upon request by FRA for a copy of the report, it must be made available in common readable form. The owner must retain a copy of the inspection and test reports until successfully completing the next inspection and test of the same type. The inspection and test report must include the following:

(1) Type of inspection and test performed (a checklist is acceptable);

(2) The results of each inspection and test performed;

(3) Tank car reporting mark and number;

(4) Tank car specification;

(5) Inspection and test date (month and year);

(6) Location and description of defects found and method used to repair each defect;

(7) The name and address of the tank car facility and the name and signature of inspector; and

(8) The unique code (station stencil) identifying the facility.

■ 30. Appendix D to Part 180 is added to read as follows:

Appendix D to Part 180—Hazardous Materials Corrosive to Tanks or Service Equipment

This list contains materials identified either by proper shipping name in 49 CFR 172.101 or shipped under an ''n.o.s.'' shipping description that, under certain conditions, can corrode carbon steel tanks or service equipment at a rate that may reduce the design level of reliability and safety of the tank or equipment to an unsafe level before the next qualification. Materials identified on this list are considered corrosive to the tank 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, the Department of Transportation, or the Association of American Railroads' Tank Car Committee.

Hazardous Materials Table Proper Shipping Names (See § 172.101)

Acetic acid, glacial or Acetic acid solution
Aluminum chloride, solution
Arsenic acid, liquid
Arsenic acid, solid
Butyric acid
Ferric chloride, solution
Fertilizer ammoniating solution (*Nitrogen fertilizer solution*)
Fluoroboric acid
Fluorosilicic acid
Formaldehyde, solutions, flammable
Formaldehyde, solutions
Hydrobromic acid
Hydrochloric acid
Hydrochloric acid solution
Hydrofluoric acid and Sulfuric acid mixtures
Hydrofluoric acid
Hydrogen peroxide and peroxyacetic acid mixtures, stabilized
Hydrogen, peroxide, aqueous solutions
Hydrogen peroxide, stabilized *or* Hydrogen peroxide aqueous solutions, stabilized

Hypochlorite solutions
Nitric acid
Phenyl phosphorus dichloride
Phenyl phosphorus thiodichloride
Phosphoric acid solution
Phosphoric acid, solid
Phosphorus trichloride (*Phosphorus chloride*)
Sodium chlorate
Sodium chlorate, aqueous solution
Sodium hydrosulfide
Sulfur, molten
Sulfuric acid
Sulfuric acid, fuming
Sulfuric acid, spent
Zinc chloride, anhydrous
Zinc chloride, solution

Materials Transported Under an ''N.O.S.'' Description

Benzoic acid (Environmentally hazardous substance, liquid, n.o.s., (RQ 5,000 pounds)
Bisulphites, aqueous solution, n.o.s. (Ammonium bisulfide)
Black liquor (Corrosive liquids, n.o.s. (contains sulfuric acid))
Calcium lignosulfonate (not regulated under this subchapter)
Hexanoic acid (Corrosive liquids, n.o.s. (contains hexanoic acid))
Lignin liquor (not regulated under this subchapter)
Lithium chloride (not regulated under this subchapter)
Sodium polyacrylate (not regulated under this subchapter)
Titanium sulfate solution (Corrosive liquids, n.o.s. (contains sulfuric acid))
White liquor (not regulated under this subchapter)

Issued in Washington, DC, on June 5, 2012, under authority delegated in 49 CFR Part 106.

Cynthia Quarterman,

Administrator, Pipeline and Hazardous Materials Safety Administration.

[FR Doc. 2012–13960 Filed 6–22–12; 8:45 am]

BILLING CODE 4910–60–P