24. Amend § 17.904 by revising the authority citation at the end of the section to read as follows:

§ 17.904 Review and appeal process.
* * * *
* * * *

25. Amend § 17.905 by revising the authority citation at the end of the section to read as follows:

§ 17.905 Medical records.
* * * *

PART 21—VOCATIONAL REHABILITATION AND EDUCATION

Subpart M—Vocational Training and Rehabilitation for Certain Children of Vietnam Veterans and Veterans with Covered Service in Korea—Spina Bifida and Covered Birth Defects

26. The authority citation for part 21, subpart M, continues to read as follows:

Authority: 38 U.S.C. 101, 501, 512, 1151 note, ch. 18, 5112, and as noted in specific sections.

27. Revise the heading of Subpart M as set forth above.

28. Amend § 21.8010:

a. In paragraph (a) in the definition of "Eligible child" by removing "3.814(c)(2)" and adding, in its place, "3.814(c)(3)".

b. In paragraph (a) in the definition of "Spina bifida" by removing "§ 3.814(c)(3)", and adding, in its place, "§ 3.814(c)(4)".

c. In paragraph (a), by adding in alphabetical order, the definition of "Veteran with covered service in Korea".

d. Revising the authority citation for paragraph (a).

e. Revising the authority citation for paragraph (b).

The addition and revisions read as follows:

§ 21.8010 Definitions and abbreviations.
(a) * * *
Veteran with covered service in Korea means a veteran defined at § 3.814(c)(2) of this title.
* * * *
(b) * * *

29. Amend § 21.8012 by:

a. Revising the section heading.

b. Revising the authority citation at the end of the section.

The revisions read as follows:

§ 21.8012 Vocational training program for certain children of Vietnam veterans and veterans with covered service in Korea—spina bifida and covered birth defects.
* * * *
[Authority: 38 U.S.C. 1804, 1812, 1814, 1821]

30. Amend § 21.8014 by:

a. In paragraph (a) introductory text, first sentence, removing "Vietnam veteran", and adding, in its place, "Vietnam veteran or veteran with covered service in Korea"

b. In paragraph (a)(2), removing "Vietnam veteran’s", and adding, in its place, "Vietnam veteran or veteran with covered service in Korea’s"

c. Revising the authority citation for paragraph (a).

d. Revising the authority citation for paragraph (b).

The revisions read as follows:

§ 21.8014 Application.
(a) * * *
[Authority: 38 U.S.C. 1804(a), 1821, 1832, 5101]
(b) * * *
[Authority: 38 U.S.C. 1804, 1811, 1811 note, 1812, 1814, 1831]

31. Amend § 21.8016 by revising the authority citation for paragraphs (a), (b), and (d) to read as follows:

§ 21.8016 Nonduplication of benefits.
(a) * * *
[Authority: 38 U.S.C. 1804(e)(1), 1814, 1834]
(b) * * *
[Authority: 38 U.S.C. 1804(e)(1), 1814, 1834]
* * * * *
(d) * * *
[Authority: 38 U.S.C. 1804, 1814, 1834]

32. Amend § 21.8022(b) by revising the authority citation at the end of the paragraph to read as follows:

§ 21.8022 Entry and reentry.
* * * *
(b) * * *
[Authority: 38 U.S.C. 1804, 1814, 1832]

BILLING CODE P

DEPARTMENT OF TRANSPORTATION
Federal Railroad Administration

49 CFR Part 179

Operating Certain Railroad Tank Cars in Excess of 263,000 Pounds Gross Rail Load; Approval

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice regarding FRA approval for operating certain railroad tank cars in excess of 263,000 pounds gross rail load.

SUMMARY: On May 14, 2010, the Pipeline and Hazardous Materials Safety Administration (PHMSA) published a final rule amending the Hazardous Materials Regulations (HMR) to incorporate provisions contained in several widely used or longstanding special permits that have an established safety record. 75 FR 27205 (Final Rule). The Final Rule titled, Hazardous Materials: Incorporation of Special Permits into Regulations, in part, amended the HMR to allow certain rail tank cars, transporting hazardous materials, to exceed the gross weight on rail limitation of 263,000 pounds upon approval of the Federal Railroad Administration (FRA). This document provides notice of FRA’s approval pursuant to the Final Rule of the operation of certain tank cars in hazardous materials service that exceed 263,000 pounds and weigh up to 286,000 pounds gross rail load (GRL).

FOR FURTHER INFORMATION CONTACT: Mr. Karl Alexy (Karl.Alexy@dot.gov or (202) 493–6245) or Mr. William Schoonover (William.Schoonover@dot.gov or (202) 493–6229), Office of Railroad Safety Assurance and Compliance.

SUPPLEMENTARY INFORMATION: Prior to the Final Rule, Title 49 Code of Federal Regulations Section 179.13 of the HMR limited rail tank cars transporting hazardous materials to a maximum capacity of 34,500 gallons (130,597 L) and, with certain exceptions, a GRL of 263,000 pounds (119,295 kg).

As noted in the preamble to the Final Rule, PHMSA has granted several special permits allowing tank cars subject to the 263,000 pound GRL limit of § 179.13 to weigh up to 286,000 pounds (129,727 kg) GRL subject to certain conditions. The Final Rule amended § 179.13 to allow, upon approval by FRA’s Associate Administrator for Railroad Safety, rail tank cars that are not transporting materials poisonous by inhalation (PIH) materials to exceed the 263,000 GRL.
limit and weigh up to 286,000 pounds GRL without a special permit. Revised § 179.13(a) further provides that FRA may impose conditions on these approvals and the tank cars “must be operated only under controlled interchange conditions agreed to by participating railroads.” In adopting this amendment, PHMSA noted that FRA has already established safety-based guidelines for applications for authority to transport rail tank cars that exceed 263,000 pounds and rationalized that providing for FRA approval of these tank cars will simplify and expedite the regulatory process while at the same time maintain safety.

This document provides notice of FRA’s approval pursuant to revised § 179.13(a) for the use in hazardous materials transportation of certain tank cars which exceed 263,000 pounds GRL and that may be loaded up to 286,000 pounds GRL, provided the cars are not loaded with PIH materials. Specifically, this document provides notice of FRA’s approval pursuant to § 179.13(a) of (1) existing tank cars that are approved to operate in accordance with a PHMSA special permit allowing a GRL over 263,000 pounds; (2) cars that have been built, rebuilt, or otherwise modified for operation with a maximum GRL above 263,000 pounds, but not currently approved to operate in accordance with a special permit allowing the increased GRL; and (3) newly manufactured tank cars designed to operate with a GRL above 263,000 pounds.

Subject to the conditions specified below, railroad tank cars meeting the requirements in Sections II, III and IV, below, are approved, pursuant to § 179.13(a), to be loaded to a GRL of up to 286,000 pounds. No additional approval is required.

I. Background

Since 1995, the Association of American Railroads (AAR) has maintained an industry standard in the form of an interchange rule related to freight cars (including hazardous materials tank cars) that weigh over 263,000 pounds GRL and up to 286,000 pounds GRL. That standard, AAR Standard S–259 (S–259)—Rail Car, 286,000-Lb Gross Weight, became effective January 1, 1995. In accordance with S–259, the design of a freight car’s body must be based on a GRL of 286,000 pounds and the standard weight-related design loads for 100-ton cars used for fatigue-design criteria must be multiplied by 1.09, with the exception of longitudinal fatigue-design loads. S–259 also established minimum equipment requirements for brakes, bearings, axles, wheels, draft systems, springs and trucks. S–259, however, does not allow for the free interchange among carriers of cars meeting its requirements. In 2002, AAR adopted a revised industry standard related to railroad freight cars weighing over 263,000 pounds 1 GRL and weighing up to 286,000 pounds. This revised industry standard, AAR Standard S–286 (adopted 2002, revised 2003, 2005, 2006), Free/Unrestricted Interchange for 286,000 Lb Gross Rail Load Cars (S–286), is applicable to rail freight cars manufactured, rebuilt or modified on or after January 1, 2003, and is the existing industry standard for designing, building, and operating rail cars at gross weights over 263,000 pounds and up to 286,000 pounds. S–286 sets forth industry-tested practices for designing, building, and operating rail cars at gross weights over 263,000 pounds and up to 286,000 pounds. S–286 provides for the free interchange among carriers of cars built to meet its requirements.

As noted in the preamble to the Final Rule, FRA’s guidelines, applicable to rail tank cars exceeding 286,000 pounds GRL, are found in a document titled, “Maximizing Safety and Weight, A White Paper on 263K+ Tank Cars.” This document is available for review on FRA’s Web site at http://www.fra.dot.gov/Pages/1800.shtml. In sum, FRA’s guidelines address the following topics: (1) Puncture resistance, (2) controlling longitudinal loading, (3) structural-worthiness, (4) track-worthiness, (5) service equipment, (6) service reliability and maintenance management, and (7) maximizing safety and weight.

Although FRA’s guidelines address more aspects of tank car design than either of the AAR standards (including the puncture resistance of tank car tanks and the reliability of service equipment on the cars), existing tank cars built to meet the AAR standards have an excellent safety record. To date, special permits issued by PHMSA, related to GRL, in excess of 263,000 pounds GRL have required that the tank cars conform to the car S–259 or S–259. In granting these special permits, PHMSA, with FRA’s input, determined that in each instance, operating the tank cars with increased GRLs under the terms of the special permit would provide at least an equivalent level of safety as tank cars built to the minimum requirements of the HMR, but limited to a GRL of 263,000 pounds. In fact, in evaluating several special permits related to increased GRLs, PHMSA and FRA found that the commodities shipped in the tank cars were overpackaged.2 Similarly, the agencies found that the specifications of the tank cars covered by other special permits indicate that the tanks were constructed of materials with mechanical properties superior to the minimum requirements of the HMR.

In the preamble to the Final Rule, PHMSA identified the following special permits as those that would be affected by the rule’s revisions to § 179.13 and thus subject to FRA approval as far as the GRL limitations: DOT–SP 11241, 11654, 11803, 12423, 12561, 12613, 12768, 12858, 12903, 13856, 13936, 14004, 14038, 14442, 14505, 14520, 14570, and 14619. In addition, FRA notes that there are five other special permits related to tank cars with a GRL in excess of 263,000 pounds. These include DOT–SP 14167, 14207, 14398, and 14734.

Of the 23 special permits listed above, seven authorize the transportation of PIH materials in tank cars exceeding 263,000 pounds. These include special permits 12858 (ethylene oxide), 13856 (Division 6.1 HMs), 14442 (anhydrous ammonia), 14520 (chlorine), 14167 (chlorine), 14173 (ethylene oxide), and 14570 (titanium tetrachloride). Because the Final Rule revised § 179.13(a) to provide FRA approval authority for tank cars “other than” those that contain PIH materials, as the regulation is currently written, FRA cannot provide approval to continue these cars in PIH materials transportation without the existing special permits. However, as demonstrated by the discussion in the preamble of the Final Rule identifying the special permits that would be affected by the revisions to § 179.13, FRA believes that the inconsistency in the revised regulatory text is the result of a technical drafting error.

Accordingly, FRA is working with PHMSA to develop and publish a correction to the Final Rule that would provide FRA authority to approve the loading of tank cars up to 286,000 pounds GRL when transporting any regulated hazardous material, including PIH materials. All but three of the 16 special permits identified above that do not involve the transportation of PIH materials authorize the manufacturing, sale, and/or use of particular DOT-specification tank cars with a GRL of 286,000 pounds.

1 This AAR standard actually references tank cars with a “GRL greater than 268,000 lbs.” but FRA understands that the reference to “268,000 lbs.” is a typographical error and the intent of the standard is to address tank cars with a GRL greater than 263,000 lbs.

2 “Overpackaged” means the specification of the tank car was above the minimum requirements of the HMR. For example, a commodity that is allowed to be transported in a general purpose tank car is transported in a pressure car with a thicker tank shell.
for the transportation of particular hazardous materials identified in the permits. Special permits 11654 and 14619 authorize the transportation of certain Class 3 hazardous materials in DOT 105S tank cars with a maximum GRL of up to 270,000 pounds, while special permit 14207 authorizes the transportation of sodium hydroxide solution, a Class 8 hazardous material, in certain identified DOT 111A100W tank cars with a maximum GRL of up to 268,000 pounds.

The regulations from which grantees have been exempted in these special permits related to GRL include: §173.26 (quantity limitations); and the GRL limit of 263,000 pounds in §179.13. In five of these special permits (11241, 11654, 11803, 12613, and 14619), the grantees have been exempted from regulations not related to the GRL of the car, and these special permits must be maintained relative to these additional exemptions (i.e., special permits must be maintained for relief from regulations other than from §§173.26 and 179.13). Accordingly, subject to certain conditions, special permits must be maintained relative to these additional exemptions (i.e., special permits must be maintained for relief from regulations other than from §§173.26 and 179.13).

Although FRA believes that tank cars, which have already been demonstrated to provide an equivalent level of safety to those specified by the HMR and existing tank cars built or retrofitted to similar standards, should be allowed to continue in HM transportation service, with the promulgation of a final rule designed to improve the crashworthiness and structural integrity of tank cars that transport highly hazardous materials such as PIH materials (HM–246; 74 FR 1770 (Jan. 13, 2009) (the “Tank Car Rule”)), FRA notes that there is a widening performance gap in crashworthiness between the most robust tank cars designed to transport certain hazardous materials and general purpose tank cars designed to transport other hazardous materials. Accordingly, subject to certain conditions, FRA is providing its approval under §179.13(a) to continue in service certain existing tank cars at GRLs in excess of 263,000 pounds and up to 286,000 pounds. At the same time, FRA is providing its approval for certain newly manufactured railroad tank cars to be loaded at an increased GRL of up to 286,000 pounds, provided certain additional conditions are met (e.g., conditions related to the puncture resistance and reliability of the service equipment on the cars). Approval of newly constructed railroad tank cars meeting these additional requirements will, over time, narrow the performance gap between the most robust tank cars in hazardous materials service and other tank cars in hazardous materials service while research continues to develop and implement a crashworthiness performance standard as discussed in the Tank Car Rule. See 74 FR at 1771.

II. FRA Approval of Existing Railroad Tank Cars Approved To Operate in Accordance With a PHMSA Special Permit Providing for a GRL Over 263,000 Pounds

Pursuant to §179.13(a), the terms of existing special permits 11241, 11654, 11803, 12423, 12561, 12613, 12768, 12903, 13856, 13936, 14004, 14038, 14207, 14798, 14505, and 14734, related to railroad tank cars transporting hazardous materials other than PIH materials and currently approved to operate in accordance with a special permit providing for a GRL in excess of 263,000 pounds, are approved, subject to the following conditions:

1. Tank cars constructed, rebuilt, or otherwise modified to meet the requirements of S–259 shall be operated only in controlled interchange in accordance with that standard.

2. Tank cars constructed, rebuilt, or otherwise modified to meet the requirements of S–286 shall be permitted to operate in unrestricted interchange in accordance with that standard.

3. Tank car owners are responsible for determining which standard their tank cars meet. Tank car owners shall maintain records demonstrating compliance with that standard and make those records available to FRA upon request. Tank car owners shall also ensure that cars subject to this approval are appropriately marked in accordance with the HMR (i.e., marked with the relevant tare weight) and that the records of the cars in AAR’s Universal Machine Language Equipment Register (UMLER) clearly indicate the standard applicable to each car.

4. In accordance with S–286, if a tank car constructed in accordance with S–259 is rebuilt or otherwise modified to meet the requirements of S–286, that car shall be permitted to operate in unrestricted interchange. Tank car owners shall maintain records of the engineering analysis and upgrades performed that demonstrate compliance with S–286, and the tank car owner must file an R–1 with the AAR prior to the tank car being operated in unrestricted interchange. (See Appendix R of AAR’s Manual of Standards and Recommended Practices, Section C–III, Specifications for Tank Cars (Specification M–1002)).

5. The GRL limit for tank cars subject to special permits 11654 and 14619 shall remain 270,000 pounds, and the tank car owners subject to special permit 14207 shall remain 268,000 pounds; unless the cars are modified and a subsequent request for approval is made to FRA.

The “terms” of the special permits referred to in this approval are the “packaging” safety control measures specified in paragraph 7 of each special permit. For example, special permit 11241 authorizes the operation of DOT-specification 105J300W tank cars that meet certain technical specifications outlined in paragraph 7 of the permit and have a maximum GRL of up to 286,000 pounds. Consistent with the terms of that special permit, FRA’s approval, per §179.13(a), is limited to the identified DOT-specification cars meeting the technical specifications outlined in the permit. FRA’s approval, however, is not limited to the specific commodities identified in the permit; instead, FRA’s approval extends to the use of the identified tank cars with a GRL of up to 286,000 pounds for the transportation of any regulated hazardous material that would otherwise be permitted to be transported in that type of specification car. Copies of the relevant special permits will be maintained by the Hazardous Materials Division of FRA’s Office of Safety Assurance and Compliance. Copies of the special permits may be obtained by contacting the individuals listed in the “For Further Information Contact” section above.

Each of the special permits listed above require the special permit (or SP) number be stenciled on the sides of tank cars operating under its terms. For tank cars operating under a special permit related only to GRL and subject to this approval, that stencil must be removed or obliterated at the car’s first shopping event after the date of this approval, or no later than January 25, 2012, whichever occurs first.

III. FRA Approval of Existing Railroad Tank Cars Built to S–259 or Rebuilt, or Otherwise Modified for Operation With a Maximum GRL Above 263,000 Pounds, but Not Currently Authorized To Operate at a GRL Above 263,000 Pounds

Existing tank cars built, rebuilt, or otherwise modified to meet the requirements of either S–259 or S–286 may be loaded to a GRL of up to 286,000 pounds subject to the following conditions:

1. Tank cars constructed, rebuilt, or otherwise modified to meet the requirements of S–259 shall be operated only in controlled interchange in accordance with that standard.

2. Tank cars constructed, rebuilt, or otherwise modified to meet the requirements of S–286 shall be permitted to operate in unrestricted
interchange in accordance with that standard.

3. Tank cars shall meet the following design specifications or be retrofitted as follows:
   a. Jacketed and non-jacketed tank cars constructed with ASTM 516–70 steel and having only the minimum plate thickness required by §§179.101–1 and 179.201–1 (no additional thickness allowance) must be retrofitted with a 7-gauge steel jacket (constructed of A–572 steel).
   b. Jacketed and non-jacketed tank cars constructed with ASTM B209 (Alloy 5052 and 5652) aluminum and having only the minimum plate thickness required by §§179.101–1 and 179.201–1 (no additional thickness allowance) must be retrofitted with a 7-gauge steel jacket (constructed of A–572 steel).
   c. Jacketed and non-jacketed tank cars constructed with ASTM B209 (Alloy 5052 and 5652) aluminum and having only the minimum plate thickness required by §§179.101–1 and 179.201–1 (no additional thickness allowance) must be retrofitted with a 7-gauge steel jacket (constructed of A–572 steel).

4. Tank car owners are responsible for determining which standard their tank cars meet and whether their cars meet the requirements of Condition 3 above. Tank car owners shall maintain records demonstrating compliance with the relevant AAR standard and the requirements of Condition 3. Tank car owners shall make those records available to FRA upon request. Tank car owners shall also ensure that cars subject to this approval are appropriately marked in accordance with the HMR (i.e., marked with the relevant tare weight) and that the records of the cars in AAR’s UMLER clearly indicate the standard applicable to each car.

5. In accordance with S–286, if a tank car constructed in accordance with S–259 is rebuilt or otherwise modified to meet the requirements of S–286, that car shall be permitted to operate in unrestricted interchange. Tank car owners shall maintain records of the engineering analysis and upgrades performed that demonstrate compliance with S–286 and the tank car owner must file an R–1 with the AAR prior to the tank car being operated in unrestricted interchange. (See Appendix R of AAR’s Manual of Standards and Recommended Practices, Section C–III, Specifications for Tank Cars (Specification M–1002)).

IV. FRA Approval of Maximum GRL of 286,000 Pounds for Newly Manufactured Railroad Tank Cars

Tank cars manufactured after January 25, 2011 may be loaded to a maximum GRL of 286,000 pounds provided the tank cars meet the following criteria:

1. Tank cars must be constructed in accordance with S–286.

2. Puncture resistance:
   a. Tank car tanks must be constructed of TC–128 steel (normalized).
   b. A jacketed tank car must be equipped with an 11-gauge jacket constructed of A–572 steel and the shell and head of the tank must meet the minimum plate thickness required by §§179.101–1 and 179.201–1. Alternate thicknesses, based on material properties indicated in the notes of §179.101–1, are not approved.

3. Service Equipment:
   a. Top fittings protection must meet the requirements of §10.2 of Appendix E to Specification M–1002 for general purpose tank cars.
   b. A tank car must be equipped with a reclosing pressure relief device.

The minimum plate thicknesses specified in paragraph 2 above were determined in the following manner. Using finite elements analysis of side impact simulations, a relationship between the puncture velocity and shell thickness was derived. Factors affecting puncture velocity were incorporated into the analysis, including gross weight, ultimate tensile strength of the shell material, tank and jacket thickness, tank diameter, and internal pressure and indenter size (which for this comparative analysis was assumed to be 12” x 12”). The puncture velocities of representative baseline tank cars were calculated. The baseline tank cars were grouped according to the specified thickness requirements of the HMR. Additionally, the diameter of each grouping was based on a survey of tank car specifications. The specification grouping, respective diameters, thicknesses, materials of construction, and working pressures were as follows:

<table>
<thead>
<tr>
<th>Tank car specification</th>
<th>Minimum plate thickness (in)</th>
<th>Material of construction</th>
<th>Diameter (in)</th>
<th>Working pressure (psig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>111A100W1</td>
<td>7/16</td>
<td>A516–70</td>
<td>94</td>
<td>50</td>
</tr>
<tr>
<td>105A200W</td>
<td>2/16 (Alloy 5052)</td>
<td>A516–70</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>105A300W</td>
<td>11/16</td>
<td>A516–70</td>
<td>117</td>
<td>100</td>
</tr>
<tr>
<td>112A340W</td>
<td>11/16</td>
<td>A516–70</td>
<td>117</td>
<td>100</td>
</tr>
<tr>
<td>111A60ALW1</td>
<td>1/2 (Alloy 5052)</td>
<td>ASTM B209 (Alloy 5052)</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>111A100ALW1</td>
<td>5/8 (Alloy 5052)</td>
<td>ASTM B209 (Alloy 5052)</td>
<td>94</td>
<td>50</td>
</tr>
</tbody>
</table>

Through an iterative process, the thickness of a tank car with similar characteristics, with the exception of a GRL of 286,000 pounds, was increased until the puncture velocity was the same as that for the 263,000 GRL tank car. In a similar manner, the equivalent single-layer thickness was determined for tank cars not equipped with a jacket. The same analysis was not performed on the head because §2.5 of AAR’s Specification M–1002, requires the tank cars to be equipped with i” thick head shields.

Failure of a tank car owner to comply with any condition of the above approvals will deprive the owner of the benefit of the approval and, in any such instances, FRA reserves the right to take appropriate enforcement action, which may result in FRA revoking such approval. If a party desires to manufacture or use a tank car not meeting the above criteria, FRA will consider such alternative designs upon application in accordance with §179.13.