Regulatory Update Federal Railroad Administration

FRA Website

New website is expected to be available to the public in the near future. A link to the website will be provided as soon as the site is available.

Navigation of the new website

In the box titled "Safety" click on the "Divisions" tab. In the "Divisions" box click on "Hazardous Materials" tab. This will put you on the Hazardous Materials Division page. There are three separate pages intended to organize the available information; Overview, Tank Car Safety, and Movement Approvals. The "Overview" page contains our contact information, helpful links to related website and documents. The "Tank Car Safety" page has links to our documents specifically related to tank cars include Tank Car safety Initiatives from previous tank car committee meetings. The "Movement Approvals" page provides a link to the HMASSIST address and documents related to One Time Movement Approvals including the latest revision of HMG-127 and the approval request document.

Personnel

Richard Tarr was on detail from PHMSA with FRA as a Hazardous Materials Specialist. Richard was instrumental in developing HMG-127 and issuing many OTMAs. In August Richard returned to PHMSA.

At the April FRA reported that Jo Strang was on detail with the Office of the Secretary of Transportation. Because of her temporary assignment, there was a shift in personnel in senior leadership positions. In July Ms. Strang's detail ended and personnel in senior leadership assumed their permanent roles as indicated below.

- Jo Strang Associate Administrator for Railroad Safety/Chief Safety Officer
- Bob Lauby Deputy Associate Administrator for Regulatory and Legislative Operations
- Ron Hynes Director for the Office of Safety Assurance and Compliance
- Bonnie Murphy Deputy Associate Administrator for Safety Compliance and Program
 Implementation

Karl Alexy was named the Staff Director of the Hazardous Materials Division of the FRA's Office of Safety in May 2012. His contact information is as follows.

Karl.alexy@dot.gov

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HM-216B

The final rule was published on June 25, 2012 and became effective on July 25, 2012. The rule incorporated the following special permits into the regulations.

- SP7616 (EDI)
- SP9388 (metering device)
- SP11184 (Class 3 materials w/ STD 25% of test pressure)
- SP12095 (Alternative qualification program)
- SP12905 (ID plates)
- SP14333 (DOT-110 spec tanks with straight threads)
- SP14622 (Alternative STD pressure)

In addition the rule addressed two petitions for rulemaking.

- P-1497 (electronic shipping papers)
- P-1567 (AAR-600 program)

A number of questions and requests for clarification regarding the incorporation of SP12095 have been submitted. FRA is working with PHMSA to develop a response. FRA expects the response to be published in the Federal Register in the near future.

Regarding the changes related to the incorporation of SP12095 there are three of key features that must be emphasized.

- The responsibilities of owners (tank cars, service equipment, and/or interior lining/coating) and tank car facilities.
 - o Tank car owners
 - Quality Assurance program
 - Qualification program (or acceptance of the TC facility's qualification program)
 - Test/Inspection methods
 - Inspection intervals
 - Acceptance criteria
 - Representation
 - o Tank Car facilities
 - Obtain owner's permission prior to performing work on a tank car (§180.513(a))
 - Owner's qualification program (or documentation that the owner accepted the TC facilities qualification program) (§180.513(b))
 - Owner's quality assurance program (§180.513(b))
- Qualification and maintenance are not interchangeable terms nor are they considered the same activities. Please refer to the definitions in §180.503 (provided below). Qualification is required following maintenance to tank car tanks and appurtenances that are covered by the tank car owner's qualification program.

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

<u>Qualification</u>, 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, 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.

- The objective of the qualification program is ensure the design level of reliability and safety of the tank car tank, internal lining/coating, service equipment, safety systems and all other features covered by the owners qualification program throughout the prescribed inspection interval. Reliability is referenced throughout the revised regulations.
 - §180.509(e)(1)(iii) structural integrity
 - §180.509(i)(1) internal lining and coating
 - §180.509(k)(1) service equipment
 - §180.511(d) safety systems

Failure of any of these features is objective evidence that the qualification program is not adequate to ensure reliability. As such it is incumbent upon the owner to closely evaluate failures, determine the root cause and determine need adjustments to the qualification program. This could include use of different test methods to take advantage of improved sensitivity of an alternative method, adjustment of the inspection interval or acceptance criteria.

One Time Movement Approvals

HMG-127 OTMA Process (Revision 2)

The original version of HMG-127 was effective January 31, 2012. The first revision was effective March 27, 2012. The second revision will be published in October. The second revision also includes a flow chart to clarify the intent and requirements of the document. The revised document has been posted on the FRA's website.

Key changes in Revision 2 of HMG-127 are as follows.

Defects are still organized in one of three categories but the coverage of the categories has changed.

- OTMA-1 will adhere to the traditional process. This category will cover all noncomplying conditions not specifically identified in the remaining OTMA categories.
- OTMA-2 is for overloads only and requires written notification and acknowledgement from FRA. Loaded cars, especially overloaded car, take precedence when prioritizing the requests for evaluation as they represent a greater risk to safety than a residue or clean car. A dedicated OTMA category enables us to quickly identify the overloads and process the request.
- OTMA-3 is a standing approval for specified nonconforming conditions.
 - The defects have been organized based on their function and location.
 - Service Equipment Top fittings
 - Service Equipment Bottom fittings
 - Interior Coating/Lining
 - Heater Coils
 - Jacket/Insulation
 - Derailment Damage
 - Additional information to be submitted on the notification is outlined. This information is relevant and necessary to identify trends in our safety analyses and verify the appropriate use of this OTMA category.
 - Applicability has been simplified and expanded to include the following.
 - Loaded bulk packages
 - Clean bulk packages
 - Residue bulk packages
 - Bulk packages containing non-regulated material

Revision 2 of HMG-127 clearly indicates the primacy of the Hazardous Materials Specialists discretion in determining the appropriate OTMA category for nonconforming conditions that do not match the conditions specified under OTMA-3.

As was the case with the original and first revision, the categories provided in Revision 2 of HMG-127 are not intended to catch all defects but provide guidelines for the requirements of an OTMA. When in doubt, complete the approval request documents and submit for evaluation. The FRA specialist will make the final decision as to which category a specific defect belongs.

OTMA-3 cannot be used for cars involved in a NAR unless excepted by a Headquarters Hazardous Materials Specialist. Depending on the nature of the defective condition that resulted in the NAR and the mitigation efforts, the specialist, at his/her discretion, can allow the use of an OTMA-3 to move the car to destination.

After submitting a notification for the OTMA-3 category please do not wait for a response. OTMA-3 is a standing approval. Notification including the information outlined in HMG-127 is the only requirement. FRA does, on a daily basis review the OTMA-3 notifications that are submitted. As a courtesy, when we identify a situation in which the OTMA-3 has been applied in error, we contact the shipper an attempt to prevent a noncompliant move.

Although not a change to HMG-127, industry is reminded that submittal of the OTMA approval request document is not required (as is indicated in the first page on the document). When 174.50 was promulgated industry requested guidance regarding the information that FRA needed to evaluate the defective condition and its risk to safety in transportation by rail. In response FRA provided this document. The regulated community has the option of submitting the information in different format. Please note that if a different format is preferred the same information requested on the FRA document should be submitted as it represent the minimum information need to perform a safety evaluation. Additional information may be required based on the nature of the noncomplying condition. Revision 2 of HMG-127 provides a list of the additional information for specific conditions; tank shell breaches, stub sill cracks, shifted jackets, defective valves and fittings, and overloads.

OTMA Data

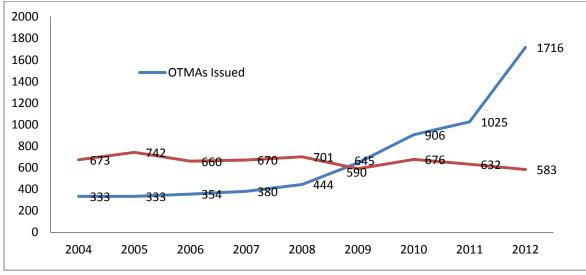


Figure 1 provides a summary of the annual number of NARS recorded and the number of issued One Time Movement Approvals. The 2012 data is projected based on data from September 30, 2012.

Table 1 is a summary of the OTMAs issued in 2012. Included is a distribution of the OTMA categories establish with the issuance of HMG-127.

Month	Approvals Issued	OTMA-1	OTMA-2	OTMA-3
January '12	119	116		3
February	107	86	5	16
March	94	49	21	24
April	89	37	15	37
May	151	60	27	64
June	174	76	23	75
July	144	61	19	64
August	240	90	23	127
September	258	75	17	166
Total	1376	650	150	576

Table 1: OTMA summary

Figure 2 is a comparison of NARS and OTMAs issued since 2004 for specific tank car features. The dashed lines are NARS and the solid corresponding colored lines are OTMAs. There is clearly an increase in the number of OTMAs especially for bottom outlet valves. There are two notable trends. For every feature except bottom outlet valves the number of NARs exceed the number of OTMAs issued. This makes sense in that noncomplying conditions in bottom outlet valves would likely manifest themselves as a leak at the loading or unloading facility and the appropriate steps can be taken to prevent a NAR. The volume of the OTMAs issued for bottom outlets relative to the number of NARs prompted FRA to reconsider how we categorize nonconforming conditions in HMG-127.

The second trend is related to manways. The consistently high number of NARS involving manways and

Figure 1: OTMA and NAR data 2004 to present

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T59.1

the low number of OTMAs also stands up to reason in that a nonconforming condition may not always be observable at the loading or unloading facility. The manway cover connection is gualified to verify a seal can be achieved. While the continued high number of NARS may be a result of operator error such as use of the incorrect gasket or not following procedures to close the manway cover another contributing factor is replacement of hinged and bolted manway eye bolts (safety and standard). The NAR data over the past 6 years indicate that hinged and bolted manways consistently account for nearly one third of all recorded NARS. The FRA has seen numerous cases in which the wrong bolt was used or the correct bolt was applied incorrectly. This is likely a result of the lack of clear guidance regarding who is permitted to replace the evebolts. Replacement of manway evebolts is clearly a maintenance activity that affects gualification of a tank car. This work must be performed by a registered or certified facility. It is the responsibility of the facility to contact the tank car owner to identify the appropriate eyebolts and obtain all related maintenance and qualification procedures. Other measures that need to be taken include clearly defining tasks that can be performed at the loading and unloading racks as well as considering standardization of evebolts.

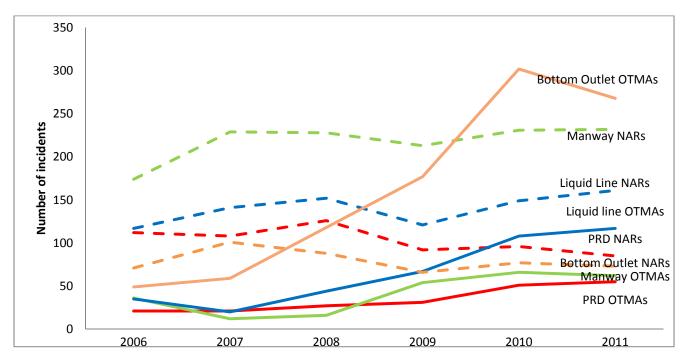


Figure 2: Comparison of NARS and OTMAs for specific noncomplying conditions

Tank Car Quality Assurance Team

Table 2 provides a summary of the Tank Car Facility Quality Assurance Team inspection results since its inception related specifically to the QA program. The results include the number of defects noted relative to the requirements of §179.7 along with the annual number of facilities audited, cars identified as needing corrective repair, and facilities withdrawing their certification or registration.

49 CFR 179.7	Description	Defects (including violation) 2010	2011	2012 (as of 10/1/12)
(a)(1)	Finished product meets specs and regulations	12	20	21
(a)(2)	Can detect nonconformity	19	31	15
(a)(3)	Prevents recurrence of non-conformities	3	14	6

Table 2: QA Inspection Results

			Government Regulations October 2012 T59.1		
(b)(1)	QA authority and responsibilities	7	7	5	
(b)(2)	QA Organization	1	9	8	
(b)(3)	Document control	30	57	66	
(b)(4)	Material ID & Documentation	50	89	89	
(b)(5)	Inspection and test plan	12	29	13	
(b)(6)	Process control	25	36	19	
(b)(7)	Nonconformity control	3	9	9	
(b)(8)	M-1002 applicability	24	59	52	
(b)(9)	Personnel qualification	6	16	14	
(b)(10)	Process capability	3	14	9	
(b)(11)	Calibration of inspection and test equipment	24	62	73	
(b)(12)	Maintenance of records	4	17	16	
(c)	NDE personnel qualification	11	23	32	
(d)	Written procedures provided	9	29	20	
(e)	Training	53	47	42	
(f)	Operate according to QA plan	3	0	6	
	Facilities audited*	59	87	79	
	Cars for corrective repair	102	248	499	
	Withdrawn Cert/Reg.	16	22	10	

*108 facilities to be audited

Safety Advisory

Odorant Fade in Railroad Tank Cars.

FRA has developed a program to gather data related to odorization of liquefied petroleum gases (LPG), specifically under odorization or odorant fade. The goal of the program is to learn the effectiveness of odorization strategies and identify potential changes to the existing process that are necessary to ensure safety in handling LPG throughout the supply chain. To this end FRA HQ is working with our field inspector to identity shippers of LPG and schedule audits. We have developed a document to supplement our inspection report to gather and organize relevant data. Our time frame to gather data is during the prime LPG shipping season, September through March. Afterwards we will compile the data and develop a plan of action. To date, we have audited 72 facilities. Our goal is to audit 213 facilities by March 2013

Miscellaneous

A hazmat employee is one who "directly affects hazardous materials transportation safety."

49 CFR 179.7(b) requires a quality assurance program to have "procedures to ensure that the fabrication and construction materials received are properly identified and documented." That process begins with the placing of an order for the materials, describing the requirements to be met, how the delivered materials are to be marked or labeled and so on. Orders not properly placed are at much greater risk of being improperly received and this would "directly affect" (i.e., directly influence) hazardous materials transportation safety.

The situation described is not about preparing hazardous materials shipments for transportation, it is about an effective QA program to ensure the tank cars that are repaired continue to meet the specification to which they were built. The purchasing function at a certified/registered shop is a vital part of the continuum.