

**Regulatory Update
Federal Railroad Administration**

Finding information of the FRA website

Navigating the FRA website

www.fra.dot.gov

Middle of page look for a blue bar with "FRA Offices"

FRA Administrations and Offices drop-down menu

Click on Railroad Safety, then "Go!"

Middle of the page – click on "Hazardous Materials"

Left column "In this section"

Useful Links

Hazardous Materials Compliance Manual

www.fra.dot.gov/downloads/safety/HazmatComManual82011.pdf

Movement Approvals

www.fra.dot.gov/rrs/pages/fp_1799.shtml

Hazardous Material Guidance Documents

www.fra.dot.gov/Pages/789.shtml

Tank Car Committee Handouts

www.fra.dot.gov/rrs/pages/fp_1803.shtml

Personnel

New personnel to FRA's Hazardous Materials Division

Kurt Eichenlaub – Specialist

Kurt brings more than 10 years of experience in hazardous materials transportation safety. For the past seven years, Kurt has worked for the Standards and Rulemaking Division in the Office of Hazardous Materials Safety of the Pipeline and Hazardous Material Safety Administration (PHMSA). During this time, Kurt served as the regulatory expert for radioactive materials, drafted and coordinated numerous hazardous material policy, guidance and rulemaking documents, analyzed intermodal transportation safety issues, represented the agency at transportation safety conferences and seminars, and served as desk officer in the DOT's Crisis Management Center. Prior to that, Kurt served as a federal contractor supporting PHMSA's Hazardous Materials Information Center, EPA's compliance assistance hotlines, and FAA's weather sensors program office. Kurt holds a Bachelor of Science in Meteorology with a minor in Global Business Strategies from the Pennsylvania State University.

Don Isler – Specialist

Prior to coming to FRA, Don worked as a plant manager for eight years with a major chemical company. In addition to his military service, Don's federal career began as an inspector trainee in Region 3 in 2006. He assumed his journeyman position as a hazardous materials inspector in Raleigh, North Carolina. He was offered and accepted a position in Washington, DC as a Risk Reduction Specialist where he helped the agency find new ways to reduce transportation safety risk. He brings those skills to the hazardous materials program. Don holds a Bachelors of Science in Business Administration and an MBA from Kennesaw State University and is working out of Kennesaw, Georgia.

Richard Tarr – Specialist (on detail from PHMSA)

During his early career Dr. Tarr worked for several companies researching polyurethanes, foams, and adhesives. He joined DOT in 1992 as a chemist for the Research and Special Programs Administration (now the Pipeline and Hazardous Materials Administration). Richard has had responsibilities in several major areas of the hazardous materials regulations, including fireworks, organic peroxides, oxidizing materials, self reactive substances, small packaging exemptions, oxygen generators (post Value Jet), lithium batteries and other related energetic systems, and cylinders. Richard has a BS in Chemistry from Graceland College (now University) and Master's and Doctorate degrees in Chemistry from University of Florida.

Recent changes to FRA senior leadership

- Jo Strang is on detail with the Deputy Secretary of Transportation to lead the Department's safety initiative in support of the DOT Safety Council. While she is on detail, the following temporary changes in RRS leadership will be in effect.
- Effective December 18, 2011:
 - Bob Lauby was detailed as the Acting Associate Administrator for Railroad Safety/Chief Safety Officer (in place of Jo Strang)
- Effective January 1, 2012:
 - Ron Hynes will be Acting Deputy Associate Administrator for Regulatory and Legislative Operations (in place of Bob Lauby)
 - Michael DeEmilio will be Acting Deputy Associate Administrator for Safety Compliance and Program Implementation (in place of Michael Logue)
 - Michael Lestingi will be Acting Director for the Office of Safety Assurance and Compliance (in place of Ron Hynes)

Bill Schoonover is now the Deputy Associate Administrator for Field Operations at PHMSA. Since his departure the Hazardous Materials Division Staff Director position has been filled on a temporary rotating basis. Susan Starks is currently the acting Staff Director.

Federal Register

Removal of special permit markings - 77FR4271 (1/27/12)

On January 25, 2011, FRA published a Federal Register notice stating that markings on tank cars related to certain gross weight on rail (GRL) Special Permits that had been incorporated into the hazardous materials regulations (HMR) by a Pipeline and Hazardous Materials Safety Administration (PHMSA) rulemaking were required to be removed or obliterated by January 25, 2012, or at each subject tank car's first shopping event, whichever occurred first. This notice relieves tank car owners from that previously stated deadline and extends the time for removal of the markings until the date of each subject tank car's next required qualification

OTMA process notification (HMG-127) - 77FR10799 (2/23/12)

The Hazardous Materials division in FRA's Office of Safety has evaluated the current OTMA process and understands the range of defective conditions and their respective frequencies. In addition, there is a growing awareness of the requirement for obtaining an OTMA to move a nonconforming bulk package, as evidenced by the continually increasing number of requests processed by FRA. It became clear that a revised process providing greater efficiency without yielding any advances in safety was needed. The OTMA procedures were developed with the goal of making the system more efficient and allowing FRA to monitor nonconformance more productively. The new process is provided in Hazardous Materials guidance (HMG)-127.

Odorant fade 77 FR 22381 (4/13/12)

FRA has issued Safety Advisory 2012-01 to remind shippers and consignees of railroad tank cars containing odorized liquefied petroleum gas (LPG), of the importance of taking actions to ensure that a sufficient level of odorant remains in the LPG throughout the entire transportation cycle. FRA is issuing this notice to raise awareness within the hazardous materials community, of the potential consequences

of having LPG reach end users as under-odorized or essentially non-odorized material due to the diminishment of the added odorant during the transportation cycle (commonly known as “odorant fade”). This safety advisory recommends that shippers and consignees of bulk quantities of odorized LPG review their existing LPG odorization standards and procedures, and take appropriate actions to guard against odorant fade in their shipments.

One Time Movement Approvals

HMG-127 OTMA Process

The original version of HMG-127 was effective January 31, 2012. The first revision was effective March 27, 2012. The revised version included a flow chart to clarify the intent and requirements of the document. The revised document has been posted on the FRA’s website at the address indicated above.

Key points point related to HMG-127 are as follows.

Defects have been organized in one of three categories based on two primary criteria; safety and value of data related to the defective condition. The safety criterion is whether or not movement of a non-conforming tank car represents a risk to safety. Data related to a defective condition is valuable if analysis will indicate trend in the performance of specific designs or operations. This data is acquired from the application and root cause analysis. The categories are as follows.

- OTMA-1 will adhere to the traditional process.
- OTMA-2 requires written notification and acknowledgement from FRA.
- OTMA-3 is a standing approval

The categories 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.

FRA does not allow the use of the OTMA-3 for cars involved in a NAR. This because of a recent incident that occurred on a loaded HM car that experienced a NAR while in transportation where an emergency response entity came out and supposedly all they did was tighten a loose valve. However, when the car was moved as an OTMA-3, the car ended up having two subsequent NAR’s from the same valve. Thus the car ended up having two more releases while moving under the OTMA-3 category. It was decided that in this update FRA exert greater control over movement of cars that experienced a NAR in transportation so we could have more control over further movement of NAR involved cars and do a more comprehensive safety review process before possibly granting further movement.

The FRA supports the AARs efforts regarding non-conformance reporting and included the following statement under the Grantee Requirements Section of HMG-127. *The offeror, as the initiator of movement, must comply with the requirements of Association of American Railroads, Manual of Standards and Recommended Practices, Section C, Part III, M-1002, Specifications for Tank Cars, Appendix B, paragraph 10.0 (i.e., the AAR nonconformance reporting requirements).*

This document is not intended be used for defects relative to 49 CFR Parts 200 to 299, specifically mechanicals and safety appliance issues Parts 215, 231, 232, etc. FRA’s Motive Power and Equipment (MP&E) Division has a separate movement approval process. For mechanical issues please contact Gary Fairbanks at (202)493-6322.

For reference below is a list of the Hazardous Materials OTMA issues and the MP&E OTMA issues.

HM OTMA

Lading containing structures

- Tank (shell, head, nozzles)
- Linings, coatings
- Flanges, fittings and valves

Safety Systems

- Insulation

MP&E OTMA

Safety Alliances

ladders
top and end platforms
steps
hand rails

Brake system and appurtenances

- Thermal protection Trucks
- Jacket Draft gear and couplers
- Safety valve Wheels

Protective housings
 Stub sills and center sills
 Skid protection
 Overloads

Table 1: OTMA summary

is a summary of the OTMAs issued since the fall Tank Car Committee meetings. Included is a distribution of the OTMA categories establish with the issuance of HMG-127.

Table 1: OTMA summary

<i>Month</i>	<i>Approvals Issued</i>	<i>OTMA-1</i>	<i>OTMA-2</i>	<i>OTMA-3</i>
October	91	--	--	--
November	74	--	--	--
December '11	65	--	--	--
January '12	116	--	--	--
February	107	86	5	16
March	77	49	21	7
April (11 th)	21	12	7	2

Tank Car Quality Assurance Team

Since the October meeting the FRA's Tank Car Facility Quality Assurance Team has audited 51 registered and certified facilities. Six of the facilities withdrew their registration and one facility withdrew its certification. In addition, 670 cars have been or are going to be returned to a facility for corrective repairs. Table 2 provides a summary of the Tank Car Facility Quality Assurance Team inspection results since the fall Tank Car Committee meeting related specifically to the QA program.

Table 2: QA Inspection Results since fall TCC meeting

49 CFR 179.7	Description	Defects (including violation)
(a)(1)	Finished product meets specs and regulations	10
(a)(2)	Can detect nonconformity	8
(a)(3)	Prevents recurrence of non-conformities	3
(b)(1)	QA authority and responsibilities	3
(b)(2)	QA Organization	4
(b)(3)	Document control	31
(b)(4)	Material ID & Documentation	31
(b)(5)	Inspection and test plan	16
(b)(6)	Process control	11
(b)(7)	Nonconformity control	6
(b)(8)	M-1002 applicability	33
(b)(9)	Personnel qualification	8
(b)(10)	Process capability	4
(b)(11)	Calibration of inspection and test equipment	26
(b)(12)	Maintenance of records	7
(c)	NDE personnel qualification	12

(d)	Written procedures provided	15
(e)	Training	25
(f)	Operate according to QA plan	0

Task Force T87.6

The design task force met six times between August and December, followed by a final call on February 15 to finalize the recommendations. The operations task force met three times between October and December. Table 3 and Table 4 below provide a summary of the threats, and design/operational concepts considered to mitigate the treats, along with the related final recommendations.

Table 3: Summary of Design Working Group recommendations

Threat	Concept	Status/Recommendation
Thermal Damage	Spray-on thermal protection	Spray on thermal protection will not be a recommendation. Use of spray on thermal protection will require field tests in order to understand the behavior over time. Testing over a range of conditions will likely require years.
	Jacket with Thermal Protection	It was the conclusion of the Task force that a jacket and thermal protection was not required to meet the current standard of 100 minutes (thermal protection performance standard in a pool fire).
	Additional PRD Flow Capacity	The AFFTAC subgroup determined that the minimum flow capacity for a single valve needed to reach the 100 minute survival time in a pool fire was 27,000 SCFM. The Task force also recommends that the required start to discharge pressure of the relief valve be 75 psi. This would maintain the maximum pressure of the valve at 75 psi rather than 165 psi (the maximum allowable STD pressure for 111 specification tank cars).
Puncture	Head shield	The Task Force supports this recommendation of Petition P1577, which includes a requirement for head shields.
	Thicker shell	This concept is a feature of Petition 1577. The working group is considering this concept along with a redistribution of steel thickness between the shell and jacket (refer to the next design concept).
Top Fittings Damage	Remove Vacuum Relief Valves (VRV)	AAR Task force T50.54 has recently submitted a recommendation to the Tank Car Committee (TCC) related to the design and testing of VRVs. These recommendations address all of the design concerns raised by the working group.
	Roll-over protection vs. top fittings protection	The Task force supports the recommendations of P-1577, which requires top fittings protection. There is ongoing research to compare the performance of roll-over protection and top fittings protection under simulated conditions.
	Eliminate hinged and bolted manways	The working group concluded this is not immediately a viable option because of the cost implication related to the required changes in infrastructure at loading and unloading facilities.
Bottom Fittings Damage	Eliminate bottom outlet valves	The working group concluded this is not immediately a viable option because of the cost implication related to the required changes in infrastructure at loading and unloading facilities.
	Enhance BOV protection	AAR TCC Task Force (T10.5) has been created and charged with evaluating the performance of bottom outlet operating and protection mechanisms.
Outage	Increase minimum outage from 1% to 2% to improve puncture energy	The influence of increasing the outage on the survivability of a tank car exposed to pool fire was found to be a maximum when increased from 1 to 2 percent. Tank cars in denatured alcohol and crude oil service are loaded and operate at 4 percent. There is no benefit in changing the minimum allowable outage

Table 4: Summary of Operations Working Group Recommendations

Threat	Concept	Status/Recommendation
Derailment	Rail Integrity	The Task Force urges the groups charged with addressing track integrity issues to aggressively work toward a quick and meaningful resolution. In addition, the Task Force urges developers and suppliers of rail flaw detection technology to continue to make the advancement and production of the technologies a priority.
Number and energy of tank cars in derailment	Alternative brake propagation systems (ECP, distributed power, end of train device)	Based on the simulation results and analysis of the data it was concluded the alternatives considered provided marginal benefits. As such, this working group will not make a recommendation related to alternative brake signal propagation systems.
	Train speed	The Task Force concurred with the recommendation of the AAR that OT-55 not be modified due to the adverse impact on cycle times and the resulting increase in the number of tank cars which would be required to transport these commodities in the same time frame.
Emergency Response	Type and availability of foam for ER	This Task Force supports the RFA's proposed recommendation and in turn, recommends the AAR request updates from the RFA regarding the availability of mobile stores of AR-AFFF.

Safety Advisory

Odorant Fade in Railroad Tank Cars.

FRA issued a notice in the Federal Register to raise awareness within the hazardous materials community of the potential consequences of having LPG reach end-users as under-odorized or essentially non-odorized material due to the diminishment of the added odorant during the transportation cycle (commonly known as “odorant fade”). This safety advisory (2012-1) recommends that shippers and consignees of bulk quantities of odorized LPG review their existing LPG odorization standards and procedures and take appropriate actions to guard against odorant fade in their shipments.

Incident: July 30, 2010, incident occurred at a condominium construction site in Norfolk, MA, when a release of LPG from a leaking connection in the basement of a building under construction resulted in an explosion and fire. This incident resulted in one fatality and seven injuries. An investigation conducted by the Massachusetts Department of Fire Services, Division of Fire Safety, revealed that the LPG in the storage tanks at the construction site had virtually no odorant present, explaining why no one at the construction site reported smelling the LPG leak prior to the explosion. While the LPG involved in the Norfolk accident did not originate from a rail shipment, the investigation into the accident revealed that a large quantity of LPG—shipped via railroad tank car as odorized—had been delivered to commercial and retail end-users with either a diminished level or absence of odorization.

In an effort to encourage industry members to take actions to ensure that a sufficient level of odorant remains in odorized LPG shipped via railroad tank car throughout the entire transportation cycle, FRA recommends that:

- (1) Facilities that load, offer, receive, or offload railroad tank cars containing LPG review their procedures to ensure they are adequate to address the issue of “odorant fade” and its various potential causes, and that those procedures ensure that tank car shipments of odorized LPG are odorized to meet applicable regulatory and industry requirements and maintain sufficient levels of odorant throughout the entire transportation cycle. Such procedures should ensure quantitative testing methods are used to measure the amount of odorant in LPG.
- (2) Facilities that load odorized LPG into railroad tank cars have adequate procedures in place to identify if a tank car received for loading of odorized LPG has been out of LPG product service for any

extended length of time, is coming from a tank car repair or cleaning facility, or has been subjected to any condition which could lead to corrosion of the tank.

- (3) Facilities that load odorized LPG into railroad tank cars inspect, to the degree possible, rail cars they receive for signs of oxidation/corrosion which can lead to the loss of odorant.
- (4) Facilities that load odorized LPG into tank cars take any other corrective actions needed to ensure sufficient levels of odorization remain in the shipment throughout the entire transportation cycle, such as increasing the amount of odorant injected into the LPG, if necessary.

Miscellaneous

It has been brought to FRA's attention that the regulations are inconsistent in terminology for shipping names. FRA suggests AAR submit a petition for rulemaking to address these inconsistencies.

Recently FRA has become aware of issues related to the transloading of cargo tank to tank cars. The issues include proper classification of the lading and difficulty complying with the requirements of 173.24b(a) Outage and filling limits. PHMSA will be publishing a final rule (HM-247 NPRM) related to loading and unloading of cargo tanks. The transloading operation will be required to account for the cargo tanks, transfer equipment and the vessel into which the lading is transferred. The aforementioned issue as well as other may be addressed by this rulemaking. It is suggested that companies involved in this type of operation carefully review the rule when published.

A question was posed regarding a common scenario in tank car construction. The scenario is that builders are creating a Certificate of Construction for each individual tank car in a series of identical cars rather than one certificate for the entire series. This is occurring in order to comply with 49 CFR §179.5(a) which requires a Certificate of Construction to be submitted to the AAR prior to a tank car being placed into service. By issuing individual certificates for each car the first cars produced can be placed into service right away rather than waiting until the last car is completed, final QA signoff performed, and the series certificate submitted to the AAR. This has created an unnecessary administrative burden. The question was regarding the options for AAR. FRA agrees that it is burdensome to collect and manage certificates of construction for individual cars in a series of identical cars. As such, FRA would take no exception if the tank car builder continued to produce a Certificate of Construction for each car and maintain the document at the facility of construction then upon completion of the final car in that series submit the Certificate of Construction for the entire car series to the AAR. During construction of the series, if a request is made for a certificate for a completed and released car, the AAR can refer the requesting party to the car builder. Prior to placing the first car in a series into service, the builder shall submit a draft Certificate of Construction to the AAR. In the draft there will be a note indicating that individual certificates can be obtained from the builder and that the final, signed certificate will be sent to the AAR upon completion of the last car in the series. It is very important that the builder maintain the completed certificates and be able to produce them upon request.