Regulatory Update
Federal Railroad Administration

Federal Register
On August 18, 2011, PHMSA published HM-216B (FR Vol. 76, No. 160). The docket number is PHMSA 2010-0018. The comment period ended October 17, 2011. However, late comments will be accepted and given as much consideration as possible. In this NPRM PHMSA is proposing to incorporate into the regulations a number of Special Permits with established records as well as addressing two petitions for rulemaking. The Special Permits and petitions along with a brief description are as follows.

SP12095 - Alternative tank car qualification program
SP7616 - Telephone and Electronic Data Interchange Shipping Papers
SP14333 - Straight threads on 110A specification tank cars
SP14622 - Alternative STD pressure requirements for tank cars containing chlorine
SP11184 - Alternative pressure relieve requirements for tank cars containing flammable liquids
SP12905 - Identification Plates in lieu of head stamping
SP9388 - Loading liquefied gases with metering device

Petition P-1567 - Gold Tank Inspection Services requested PHMSA remove the requirement that portable tanks comply with the AAR600 standard and add a requirement that all portable tanks transported in COFC and TOFC conform to all requirements in the HMR..

Petition P-1497 – The International Vessel Operators Hazardous Materials Association, Inc. requested similar relief for all modes of transportation as that provided by SP7616 for rail. FRA and PHMSA decided to limit this rule to rail transportation.

Also this NPRM is proposing a change a §173.13 which delegates authority to the FRA to authorize transportation of PIH in tank cars exceeding a GRL of 263,000 pounds but less than 286,000 pounds. As such, all Special Permits that solely authorize transportation of PIH materials at this GRL are incorporated into the HMR and are no longer needed. If there are provision in the permit not related to the GRL the permit must be modified and maintained as required.

One Time Movement Approvals
Process Review
FRA has completed a review of the One Time Movement Approval process. The review was in the form of a peer review and public comment. The peer review team is made up of an engineer and specialist from PHMSA and a lawyer and economist from FRA. The diversity of team members provided encompassing and valuable perspective on the OTMA process. The recommendations provided below are aimed at simplifying the process and ensuring the process was thorough and the conclusions defensible. The italicized recommendations are currently being addressed. The others have been addressed.

- *Safety Evaluation Document to explain why an OTMA was approved or denied*
  - *How were safety concerns addressed*
  - *Provide information used in the decision-making process*
  - *Correspondence between FRA and applicant*
- Root Cause Analysis

- Requirements for inspection prior to movement
    - All OTMA requests
    - Develop a list of defects that would require and inspection
- Requirement for photo-documentation of structural defects and other serious safety concerns
- *Update of Hazardous Division's Compliance Manual Chapter 10 to include processes developed to address these recommendations*.
- Shortest route verification to be included with the safety evaluation
- General submission of application
- *Publish OTMA on FRA website*
- OTMA revision/extension (HMASSIST@dot.gov)
- Track trends
- *Develop standing approvals for common, low-risk defects*

Public Meeting

Docket FRA-2011-0004 was opened to announce a public meeting to discuss "Improving the Safety of Railroad Transportation of Hazardous Materials" and solicit written comments from interested parties. The docket closed March 24, 2011. The public meeting was held February 22, 2011 in Washington, D.C. The theme of the comment was improving the efficiency of the OTMA process. Much like that of the peer review team, the recommendations provided by the commenters focused on categorizing defects and managing the requests as follows.

- Common, low risk and highly technical defects be permitted to move for repair without an OTMA or notification of the FRA.
- Low risk defects that present a potential for greater risk be moved under a standing approval and require notification of the FRA. Notification to include submission of pertinent information to the FRA.
- All other defects to require and OTMA

Other factors to be considered would include whether the tank is cleaned and purged and the commodity. In conjunction these recommendations the FRA is considering changes to §174.50. The HM Division (specialists and engineers) has initiated an effort to categorize defects and develop procedures to address all recommendations. Our initial plan is to provide the procedure to the regulated community in the form of a Hazardous Materials Guidance document.

Quality of OTMA Requests

FRA is aware that the process time for OTMA requests has lengthened over the past year. The increase in compliance with §174.50 in combination with a smaller staff are contributing factors to the problem. Another very important factor is the quality of the information provided by parties requesting OTMA. The FRA specialists estimate that less than 10 percent of OTMA requests have the information (complete and accurate) required to accomplish the evaluation. In 2011, the FRA is on pace to issue 1,000 OTMAs, a rate of approximately 4 requests per work day. Therefore, every 2.5 days a request comes in that is complete and accurate and is processed without delay. The previous 9 requests are in a file waiting for the required information as more requests are submitted, 90% of which will also be placed in a file waiting for additional or correct information. After one week, 18 OTMA request are in a file and two have been issued. Without complete and accurate submissions the process will continue to be inefficient.

Data

As of October 1, 2011 the FRA had received 824 requests for and issued 797 OTMAs. Table 1 provides a summary of the defects on tank cars for which OTMAs have been requested in 2011. In addition,

Table 1 shows a comparison of the percentage of the total requests each general defect type accounted for in the three previous years.

Table 1: 2011 OTMA Defects and comparison to previous annual totals

Defect	*Number of defects (2011)*	*2011*	*2010*	*2009*	*2008*
Service Equip Failure	498	62%	65%	66%	63%
Overload by weight	68	9%	9%	11%	9%
Jacket Damage	22	6%	4%	3%	5%
Other	30	4%	5%	6%	4%
Tank Damage	40	5%	3%	4%	8%
Leakproof Test	42	5%	5%	5%	2%
Derailment Caused Damage	39	5%	3%	2%	6%
Heater Coil Failure - Internal	13	2%	1%	1%	1%
Stub sill weld cracks	14	2%	2%	1%	--
Heater Coil Failure - External	2	0%	1%	0%	0%
Overdue For Test	4	1%	1%	1%	2%
Overload by volume	0	--	0%	--	0%
Hopper Car - shell crack	0	--	--	0%	--

Table 2 provides an annual comparison of the percentage of OTMAs issued per service equipment component. The consistency of the data for 2011 and the previous three years indicates the bottom outlet valves and top unloading valve have the highest defect rate.

Table 2: Percentage of total OTMAs for service equipment components

Defect	*2011*	*2010*	*2009*	*2008*
Bottom Outlet Valve:	40%	46%	38%	40%
Gauging Device:	5%	6%	4%	4%
Gaskets:	5%	1%	2%	5%
Loading/Unloading Valves:	15%	16%	14%	15%
Nozzles/Manway:	5%	3%	6%	5%
Safety Relief Valve:	7%	8%	9%	9%
Sample Valve:	5%	4%	3%	2%
Thermometer Well:	3%	1%	2%	2%
Vacuum Relief Valve:	5%	5%	10%	9%
Vapor Vent Line/Valve:	1%	4%	5%	4%
Manway Cover Bolt:	3%	7%	5%	5%
Pressure Relief Device - Vent:	1%	0%	0%	----

FRA's Tank Car Qualify Assurance Team

Since the April Tank Car Committee meeting, the team has audited 49 registered and/or certified facilities. Ten of the facilities have voluntarily withdrawn their AAR registration. As a reminder FRA does not revoke registrations nor do we require or even suggest withdrawal of a facility's registrations or certification. The team simply points out the current level of non-compliance and explains how compliance can be achieved. It is up to an individual facility to decide if they have the resources,

knowledge and/or desire to comply. Additionally, since the April meeting the Team has increased its presence in certified facilities.

Based on audits the focus issues for the Tank Car Quality Assurance Team are owner's procedures for qualification of tank cars, linings and coatings, function specific training, and process control. However, focus issues change based on our knowledge of issues arising in the industry.

In HM-216B the proposed changes to the regulations related to the incorporation of SP12095 stress the importance of owner's procedures for qualification of tank cars. Certified tank car facilities must follow owner's qualification procedures. Implicit in this requirement is that the procedures must be the current version (document control) and complete. If a facility is following their own qualification procedures they must have documented approval from the tank car owner accepting the procedures and acceptance/rejection criteria.

In a number of instances the quality of the owner's qualification procedures has been questionable. The procedures, while including all of the generic elements, lack necessary details such as where/what to inspect, how the inspection (specific NDE methods) is to be performed and clearly defined acceptance/rejection criteria. In addition, the owner's qualification procedures reference sections of the AAR's Tank Car Manual that no longer exist or have since been modified to render the procedure useless. Related to this issue is process control. There have been a number of instances in which the owner's procedures have been available but were not being followed. In addition, when referenced in the owner's procedures, the requirements of the Tank Car Manual were not being met.

The HMR, SP12095, and the changed to the HMR proposed by HM-216B all require owners of interior coatings and linings to properly designate the interior coating/lining as used for corrosion resistance or product purity. The owner must be able to provide data supporting this designation in the form of chemical properties of the lading and data from the coating /lining manufacturer. On two separate occasions this year shippers, after requesting multiple OTMAs for tank cars in the same service, tested their commodity, classified as non-corrosive, and discovered it did meet the definition of corrosive. In addition, coating/lining owners must develop inspection intervals based on evaluation of manufacturer's recommendations/data as well as previous inspection data. The evaluation must be at a frequency that will allow appropriate adjustment of the intervals.

Training is a requirement of §179.7(e), which refers to §172.704. Function specific training, covered in the latter, includes training related to the maintenance requirements of tank car owners, facility quality assurance program, work procedures, and special permits. It is important to stress that tank car facility employees must be trained about the relevant requirement of special permits related to their facility and tank cars being inspected or repaired.

Special Permits

Throughout the fiscal year 2011, regional personnel inspected railroads and companies within their territory and determine, as best possible, the applicability of the permit at the site and make recommendations on continued renewal or withdrawal of the permits. FRA regional inspectors have evaluated over 200 Special Permits resulting in recommendation for discontinuance of the permit based on non-applicability.

Safety Issues
Recent incidents and subsequent investigations compel the FRA to request the AAR to consider changes to existing requirements related to the following.

Section 3 of Appendix W of the AAR's Tank Car Manual requires visual inspection of the manway nozzle to shell welds. The FRA would like the TCC to consider requirements for volumetric evaluation of this weld.

Paragraph 6.1.2.5.1 contains the "85% Throat Rule" which limits the throat area of the weld connecting the sill to pad to 85% of the area of the welds attaching the pad to tank. This requirement can be met on a global scale (when comparing all of the welds in the sill) with the potential of an unfavorable ratio on a local scale, i.e. outboard of the tank bolster. In addition, this requirement does not fully address the stresses experienced by a sill in a derailment. FRA would like the TCC to consider additional design requirements to ensure that under severe (derailment) conditions damage to the sill will not result in damage to the tank shell or head.

Investigations
Tiskilwa Derailment
On October 7, 2011 at about 2:14 am (Central), an eastbound freight train on the Iowa Interstate Railroad derailed in Tiskilwa, IL. The train consisted of two locomotives and 131 cars. Cars 3 thru 30 were involved in the derailment. Ten of the cars (positions 19-28 of the train) contained hazardous material, denatured alcohol. Damage to the tank cars is summarized below.

- 4 Head punctures
- 3 Shell breaches
- 3 Thermal tears
- 1 Top Fittings/nozzle
- 1 Bottom outlet

FRA has initiated a data gathering effort in which a detailed evaluation of the damage was conducted. Data collected includes dent, gouge, puncture dimensions and locations, thickness measurements, fracture surface evaluation, service equipment inspection, fire exposed areas. FRA will work with the AAR-RSI Safety Project to accumulate and store the data and photographs.

T87.6
Background
On March 9, 2011, the Association of American Railroads (AAR), on behalf of its members and the Tank Car Committee (TCC), jointly petitioned the Pipeline and Hazardous Materials Safety Administration (PHMSA) and Transport Canada (TC) to establish new standards for DOT Class 111 tank cars used to transport hazardous materials in packing groups I and II. The petition (P-1577), which was an outgrowth of a TCC executive working group, proposed new construction standards and specifically recommended no modification for existing tank cars. The AAR agreed to forward the petition to PHMSA on behalf of the TCC as a result of a unanimous decision by the Committee.

On May 10, 2011 FRA met with the Railway Supply Institute's (RSI) Tank Car Safety Committee to discuss improvements to tank cars used for the transportation of crude oil in unit trains. FRA requested this meeting to discuss improving tank car safety specific to crude oil tank cars given the recent increase in demand for these cars. At the meeting FRA presented information from a recent unit train accident in

Arcadia, Ohio. The intent of the meeting was to spur discussion about innovative solutions that improve tank car safety for future changes in the hazardous materials transportation supply chain. The advent of increased shipments of crude oil in unit train quantities provided an avenue to discuss safety enhancements prior to a major tank car build. The FRA suggested a number of potential safety enhancement technologies such as spray-on thermal protection, manway redesign, and tank car design improvements (rounding edges of components) for consideration by the tank car builders/owners. The meeting resulted in the RSI members offering to develop an industry standard (non-regulatory) in collaboration with the AAR, the Renewable Fuels Association (RFA), Growth Energy, and the American Petroleum Institute (API). This effort is being conducted through a TCC Task Force led by the FRA.

On June 15, 2011 an Industry Consortium consisting of RSI, AAR, API, Growth Energy and the RFA submitted an action plan for the continuous reduction of risk associated with rail transportation of Crude Oil classified as PG I and II and Ethanol. The objectives of the action plan are to make recommendations on derailment risk reduction actions that can be quickly implemented; develop a new specification for tank cars transporting the aforementioned commodities and allowance for new cars for these services to be constructed to the standard proposed in P-1577. The Industry Consortium met with the FRA on July 12, 2011 to review the plan. The FRA concurred with the objectives and supported the proposed approach.

On July 20, 2011, at the summer AAR Tank Car Committee meeting docket T87.6 was created with a dual charge to develop an industry standard for tank cars used to transport crude oil, denatured alcohol and ethanol/gasoline mixtures as well as consider operating requirements to reduce the risk of derailment of tank cars carrying Crude Oil classified as PG I and II, and Ethanol. The task force has been organized into two separate working groups; the first referred to as the design working group, and the second referred to as the operations working group. The 35 member design working group has met three times, August 17, September 9, and September 23 and has made significant progress. As we draw near the imposed completion date of October 1, it has become evident that the design issues discussed in this working group cannot be considered independently of the, yet to meet, operations working group. As such, the decision was made to prepare this memorandum intended to update the leadership of all organization involved in the design working group.

Below is a summary of the efforts of the design working group including the threats and design concepts conceived to mitigate the threats, obstacles to implementation, and agreed upon recommendations as of this writing. Because the focus of this working group is confined to a small group of commodities, it has provided a unique opportunity to gather together individuals from all segments of the industry that are imminently qualified to discuss in detail all facets of use and transportation of tank cars transporting these specific commodities.

Design Working Group Objectives

The overarching objective of the working group is to maximize benefits, in this case safety, while minimizing cost. The working group is evaluating numerous design features intended to improve the survivability in accidents of tank cars transporting the referenced commodities. These features will include the new AAR standards outlined in CPC-1230 and petition P-1577, which is currently under review with PHMSA. The additional features will be considered that are based on the findings of forensic evaluations of recent derailments involving tank cars built for ethanol service. The segments of the industry represented in the working group all define cost differently. The tank car builders/owners define cost in terms of manufacturability, utilization (limited number of commodities), and suitability of design (retrofit requirements to comply with changing regulations). The railroads define cost in terms of imposed

operating requirements. The shippers define cost in terms of loss of capacity and compatibility with existing facility and railroad infrastructure.

Progress

For the purpose of the working group the threats to the survivability of tank cars in accidents have been categorized as thermal damage, puncture, top fittings and bottom fittings damage. Within these categories the design working group has compiled a list of design concepts intended to improve the survivability of the tank car. Improving survivability includes preventing a release of commodity, delaying the release or minimizing the energy of the release as would be desired for a tank car in a pool fire. The table below summarizes the design concepts considered for each threat and describes obstacles to implementation or proposed recommendations. Understanding the obstacles enables the working group to modify existing concepts or develop new concepts that will facilitate implementation.

Threat	Concept	Obstacles to Implementation	Status/Recommendation
Thermal Damage	Spray-on thermal protection	• Experience with similar technology (Char-Tech and Thermolag) is not favorable. These coatings are difficult to maintain and have been found to contribute to corrosion of the tank shell • Additional weight of Nanochar spray on coating will decrease the allowable capacity of the tank car by 179 gallons. • The 30,000 gallon tank has a large surface area and requires a long time to coat. The pot life of the Nanochar spray on coating is short. Will require multiple applications and may result in a non-continuous coating which could affect performance.	Spray on thermal protection will not be a recommendation of the design Working Group as an immediate solution. 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. Interested owner will perform tests as desired and share information/findings.
	Jacket with Thermal Protection, or simply a jacket with empty annular space	• The addition of a jacket and thermal protection will decrease the volume and weight capacity of the tank car. Reduction in capacity will result in additional originations and, if the probability of derailment remains the same, a greater number of derailments. • The addition of a jacket and thermal protection will increase construction, as well as inspection and maintenance costs.	This concept is being evaluated by the working group. A subgroup was organized to performed simulations to quantify the benefits using the Analysis of Fire Effects on Tank Cars (AFFTAC) program. The AFFTAC program is currently the standard method of demonstrating compliance with the thermal analysis requirements of §179.18.
	Additional PRD Flow Capacity	Petition P-1577 required top fittings protection and thereby limits the space available to accommodate additional pressure relief devices (PRD). Use of an additional PRD would require another nozzle presenting an additional leak path in a derailment or normal operating conditions.	This concept is being evaluated by the working group. The AFFTAC subgroup is performing simulation to determine the benefit.
Puncture	Head shield	Addition of a head shield will result in a higher tare weight and commensurate decrease in capacity of the tank car. Reduction in capacity will result in additional originations and, if the probability of derailment remains the same, a greater number of derailments.	The working group will support this recommendation of Petition P1577 because head shields are an establish safety feature.
	Thicker shell	Construction of a tank car with a thicker head and shell will result in a higher tare weight and commensurate decrease in capacity of the tank car. Reduction in capacity will result in additional originations and, if the probability of derailment remains the same, a greater number of derailments.	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).
	Redistribution of steel thickness between jacket and shell	• If the thermal protection concept of a jacket is adopted, increasing the thickness of the jacket while decreasing the thickness of the tank shell an equal amount will have no effect on the tare weight of the tank car. If it is not this will require addition of a jacket for puncture resistance and the same capacity penalties mentioned above will apply. • Builders will need to retool their manufacturing process. This, in turn, will delay delivery of tank cars meeting the new requirements to the market. • Design modification will be required to support and prevent the shifting of the heavier jacket.	FRA has contracted with Applied Research Associates (ARA) to model and simulate punctures of tank cars of different specifications and a redistribution of thickness between the shell and jacket. The simulation will demonstrate the influence of different size indenters as well as impacts on different locations of the car and at varying angles of obliquity. Initial results indicate there may be merit in this concept.

		• Design modifications will be required to reinforce the thinner shell. • Addition of a jacket and incorporation of design modification will increase inspection and maintenance costs.	
Top Fittings Damage	Remove Vacuum Relief Valves (VRV)	• VRV, if operated properly, are an important feature of the tank car's service equipment. They prevent implosion of tank cars which are filled with elevated temperature material or are cleaned with steam or hot liquid. For this reason they are a specification requirement for many shippers of the commodities under consideration by this working group. • New technology in the design of the VRV has not been fully evaluated. The new designs may help prevent releases through the VRV observed at a number of the recent derailments. • A significant portion of the problem (with leaking through the VRV) is the compatibility of the o-ring material specified with the commodity (and its components such as denaturants). The current material is compatible with the commodities under consideration but inexpensive versions are formulated with plasticizers and fillers that are not compatible. These formulations are inconsistent and therefore unpredictable.	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. The working group will review data from the RSI-AAR Safety Project database in order to understand the benefits of the new technology The working group is evaluating approaches to overcome the problems with o-ring compatibility. An option is specification of o-ring made from the Viton family of polymers. Viton can be certified and designated based on specific performance properties, and it has a wider range of compatibilities. Another option is to use a UL listing to designate certified formulations.
	Roll-over protection vs. top fittings protection	Petition P-1577 includes top fittings protection. It is uncertain the improvement offered by roll-over protection relative to top fitting protection.	The working group will recommend the AAR TCC create a docket and form a task force charged with correlating protective capacity of top fittings and roll-over protection. In addition, the working group will review data from the RSI-AAR Safety Project to determine if there is a distinction in the performance between roll-over protection and top fittings protection
	Eliminate hinged and bolted manways in favor of pressure arrangement	• Hinged and bolted (H/B) manways are very important to the loading and unloading operations of ethanol and crude oil. The hing and bolted feature allow for quick and easy access to the manway. The existing infrastructure at the loading and unloading facilities has been designed make use of the 20" manway. Through the manway the facilities recover vapor, inspect the interior of the cars, obtain samples of heels in the tanks, insert a stinger used to dissipate energy of a fluid moving at a high flow rate, gauge the volume in the car during loading, access the car for periodic and ad hoc cleaning. In some cases all of the loading/unloading appurtenances have been incorporated onto a housing that fits over the manway. • If a bolted pressure plate like assembly is required the loaded volume will be determined using existing technology. The specific gravity of crude oil varies from 0.6 to 1.0 limiting the usefulness to a magnetic gauging device.	This concept is currently under consideration. The working group will review data from the RSI-AAR Safety Project to determine the historical performance of the manway in derailments. In addition, the working group was provided a photograph of a housing used at the loading/unloading facilities and will evaluate if a pressure plate can be designed that will incorporate the required fittings. Alternatives to existing gauging devices are being evaluated. These alternatives include ultrasonic sensors, laser technology, and use of flow meters.
Bottom Fittings Damage	Eliminate bottom outlet valves	Bottom outlet valves (BOV) are valued feature of the tank car for the shipping community. The BOV is used to unload, and in some cases, load the tank cars. In addition, the BOV is necessary when the car is cleaned to drain the rinsate. Eliminating the allowance for BOV will require major alterations of existing infrastructure of loading and unloading facilities	The working group concluded this is not immediately a viable option. However, the working group will review data from the RSI-AAR Safety Project to determine if specific BOV designs have a history of performing poorly in derailments. Using this data, the problem may be addressed by a focused evaluation of specific designs rather than a sweeping change to tank car design.
	Enhance BOV protection	Appendix E of the M-1002 details AAR requirements for bottom discontinuity protection. In order to move forward with this concept, the design criteria will need to be developed.	AAR TCC had created a docket T10.5 and a task to evaluated the performance of bottom outlet operating mechanisms. Some designs have operated in accident and non-accident scenarios releasing product with no other damage to the tank car tank. This working group has requested that additional assignments be given to T10.5. These include investigating the design of the bottom outlet protection system, "skid", to determine if changes are necessary, and strength of fasteners for mounting the outlet and use for failure point in shear planes. Some of the areas of investigation earlier

			determined by the TF include: • Shipment of the car without the BOV handle attached and development of a standard/universal handle attachment. • Eliminate use of overly strong handle • Performance of operating stops on valve bodies • Operating instructions The TF will also engage BOV manufacturers to enhance performance of valve configurations or design to increase survivability in accident scenarios
Outage	Increase minimum outage from 1% to 2% to improve puncture energy	It has been demonstrated through simulation of puncture scenarios that increasing the outage from 1% to 2% provides a significant increase in puncture energy of a loaded tank car. Increase the required number of shipments to meet demand. Increase the number of derailments. Reducing the volume carried will result in additional originations and, if the probability of derailment remains the same, a greater number of derailments. This will be difficult to evaluate because the commodities are loaded below the reference temperature and the outage at the loading temperature is well above the regulatory minimum. It was reported Ethanol was loaded to an outage of approximately 4%.	The working group is currently considering this concept. The AFFTAC subgroup will perform simulations to determine the benefit (to survivability in a pool fire) offered by increase outage. Determine the influence of outage on the survivability of a tank car exposed to pool fire. In addition, ARA will simulate puncture scenarios using a range of outages relative to selected tank car specifications. FRA agreed to research the regulatory justification for the 1%outage requirement. .

Path(s) Forward

The design working group will meet again October 27th in Washington DC. In the intervening weeks, the operations working group will be organized and a meeting scheduled for October 28th. The AAR provided a list of personnel from the railroads that will be participating on the operations working group. An offer was made, and accepted by all but a few, to the design working group to be a part of the operations working group. The objectives of the operations working group will be to make recommendations to reduce the number of derailments and the number of cars involved in an incident. This working group will initiate the conversation by reviewing the causes of recent derailments involving Ethanol unit trains. The goal is to provide recommendations by December 31, 2011. The overlap in membership will create continuity between the two groups and enable continuous evaluation of all the improvement concepts (from both working groups) in a global context. For this reason, it is anticipated the recommendations from both working groups will be submitted together.

Posting - http://www.fra.dot.gov/rrs/pages/fp_1803.shtml