

Robert C. VanderClute Senior Vice President Safety and Operations

CIRCULAR NO. OT-55-N

Effective August 5, 2013

(CPC-1258)

SUBJECT: Recommended Railroad Operating Practices for Transportation of Hazardous Materials

TO MEMBERS AND PRIVATE CAR OWNERS:

OT-55 has been revised as reflected below. OT-55-N (attached) becomes effective August 5, 2013 and supersedes OT-55-M, issued October 1, 2012. It is understood that it will take some time to implement changes reflected in the revised OT-55-N.

Changes include:

- I. A. Definition of a "key train"
 - ➤ 1st bullet Changed from "five tank car loads" to now read "one tank car load". Also deleted Footnote 2 that was found after "ammonia solutions (UN3318).
 - > 2nd bullet will now read "20 car loads or portable tank loads of any combination of hazardous material."
- IX Applicability
 - Changed to read These recommendations apply to rail operations within the United States of America.
- Eliminated Appendixes A, B and C (since any combination of hazardous materials are included). Remaining appendixes are now referenced as Appendixes 1,2 and 3.

Sincerely,





Association of American Railroads

Circular OT-55-N Effective August 5, 2013

Recommended Railroad Operating Practices For Transportation of Hazardous Materials

Road Operating Practices

I. <u>"Key Trains"</u>

- A. Definition: A "Key Train" is any train with:
 - One tank car load of Poison or Toxic Inhalation Hazard¹ (PIH or TIH) (Hazard Zone A, B, C, or D), anhydrous ammonia (UN1005), or ammonia solutions (UN3318),
 - ➤ 20 car loads or intermodal portable tank loads of any combination of hazardous material.
 - ➤ One or more car loads of Spent Nuclear Fuel (SNF), High Level Radioactive Waste (HLRW)

Appendix 1 is a list of SNF and HLRW with 49 Hazmat Codes, Appendix 2 is a list of time sensitive materials and Appendix 3 is a form for requesting hazardous materias commodity flow information.

B. Restrictions:

- 1. Maximum speed -- "Key Train" 50 MPH
- 2. Unless siding or auxiliary track meets FRA Class 2 standards, a Key Train will hold main track at meeting or passing points, when practicable.
- 3. Only cars equipped with roller bearings will be allowed in a Key Train.
- 4. If a defect in a "Key Train" bearing is reported by a wayside detector, but a visual inspection fails to confirm evidence of a defect, the train will not exceed 30 MPH until it has passed over the next wayside detector or delivered to a terminal for a mechanical inspection. If the same car again sets off the next detector or is found to be defective, it must be set out from the train.

II. Designation of "Key Routes"

A. Definition: Any track with a combination of 10,000 car loads or intermodal portable tank loads of hazardous materials, or a combination of 4,000 car loadings of PIH or TIH (Hazard zone A, B, C, or D), anhydrous ammonia, flammable gas, Class 1.1 or 1.2 explosives, environmentally sensitive chemicals, Spent Nuclear Fuel (SNF), and High Level Radioactive Waste (HLRW) over a period of one year.

B. Requirements:

¹ Poison Inhalation Hazard (PIH) and Toxic Inhalation Hazard (TIH) are used interchangeably and refer to the same list of chemicals.

- 1. Wayside defective bearing detectors shall be placed at a maximum of 40 miles apart on "Key Routes", or equivalent level of protection may be installed based on improvements in technology.
- 2. Main Track on "Key Routes" is inspected by rail defect detection and track geometry inspection cars or any equivalent level of inspection no less than two times each year; sidings are similarly inspected no less than one time each year; and main track and sidings will have periodic track inspections that will identify cracks or breaks in joint bars.
- 3. Any track used for meeting and passing "Key Trains" must be Class 2 or higher. If a meet or pass must occur on less than Class 2 track due to an emergency, one of the trains must be stopped before the other train passes.

III. Yard Operating Practices

- A. Maximum reasonable efforts will be made to achieve coupling of loaded placarded tank cars at speeds not to exceed 4 MPH.
- B. Loaded placarded tank cars of PIH or TIH (Hazard zone A, B, C or D), anhydrous ammonia, or flammable gas which are cut off in motion for coupling must be handled in not more than 2-car cuts; and cars cut off in motion to be coupled directly to a loaded placarded tank car of PIH or TIH (Hazard zone A, B, C, or D), anhydrous ammonia, or flammable gas must also be handled in not more than 2-car cuts.

IV. Storage

Separation Distance for New Facilities

Loaded Tank Cars and Storage Tanks from Mainline Class 2 Track or Higher

Activity	PIH (Zone A, B, C or D), Class 3, Division 2.1, Division 2.2 and all other Hazard Classes	Combustible Liquids, Class 8, and Class 9
Loading and Unloading	100 FEET	50 FEET
Storage of Loaded Tank Cars	50 FEET	25 FEET
Storage in Tanks	100 FEET	50 FEET

- Note 1— With regard to existing facilities, maximum reasonable effort should be made to conform to this standard taking into consideration cost, physical and legal constraints. New facilities should take into consideration location of Mainline Class 2 Track or higher of all carriers.
- **Note 2** The proposals apply to storage on railroad property and on chemical company property located close to railroad mainline.
- Note 3 These separations are primarily intended to provide protection to new facilities from main line derailments. Separation distances were derived from AAR derailment data for distances that cars typically travel from the main line during derailments. Although incidents that may occur in the new facilities cannot be quantified in the same manner, these separation distances will also provide some measure of protection to main line traffic. Also, both track class (e.g. operational speed) and hazard classification (e.g. risk) are factors that were taken into consideration when assigning the categories.
- **Note 4** Distances above are measured from track centerline to track centerline or from track centerline to nearest edge of storage tanks.
- V. <u>TRANSCAER®</u> (Transportation Community Awareness and Emergency Response Implementation of Transcaer®)

Railroads will assist in implementing TRANSCAER®, a system-wide community outreach program to improve community awareness, emergency planning and incident response for the transportation of hazardous materials. Objectives of TRANSCAER® are as follows:

- Demonstrate the continuing commitment of chemical manufacturers and transporters to the safe transportation of hazardous materials;
- Improve the relationship between manufacturers, carriers and local officials of communities through which hazardous materials are transported;
- When requested assist Local Emergency Planning Committees (LEPC's) in assessing the hazardous materials moving through their communities and the safeguards that are in place to protect against unintentional releases. Upon written request, AAR members will provide bona fide emergency response agencies or planning groups with specific commodity flow information covering at a minimum the top 25 hazardous commodities transported through the community in rank order. The request must be made using the form included as Appendix 3 by an official emergency response or planning group with a cover letter on appropriate letterhead bearing an authorized signature. The form reflects the fact that the railroad industry considers this information to be restricted information of a security sensitive nature and that the recipient of the information must agree to release the information only to bona fide emergency response planning and response organizations and not distribute the information publicly in whole or in part without the individual railroad's express written permission. It should be noted that commercial requirements change over time, and it is possible that a hazardous materials transported tomorrow might not be included in the specific commodity flow information provided upon request, since that information was not available at the time the list was provided;
- Assist LEPC's in developing emergency plans to cope with hazardous materials transportation incidents;
- Assist community response organizations in preparations for responding to hazardous materials incidents.

An important product of the TRANSCAER® program will be to overcome the widespread belief that every local firefighter and policeman must have the expert skills and equipment to respond personally to any hazardous materials emergency. Through the awareness training and contingency planning provided through TRANSCAER®, states and local communities will be able to pool their expertise and resources with those of industry to provide for a more coordinated and better managed emergency response system.

TRANSCAER® should be highly publicized to produce the maximum desirable enhancement of public awareness.

VI. Criteria for Shipper Notification

The railroads will initiate the shipper's emergency response system by calling CHEMTREC, or the appropriate contact telephone number as required by regulation on the shipping document, when an incident occurs involving any car (load or residue) containing a hazardous material regulated in transportation by the Department of Transportation.

An incident is defined as a rail car which is derailed and not upright, or which has sustained body or tank shell damage, or has sustained a release of any amount of product.

The shipper's emergency response system should also be initiated if the carrier believes there is reason to suspect any other potential for injury to people, property or the environment.

In the event of a major rail accident, a consist (to include shipper, consignee and commodity description for each hazardous material), waybill or equivalent document, should be provided upon request to CHEMTREC or the appropriate shipper contact as identified by the emergency response telephone number displayed on the shipping document. This can be accomplished by facsimile or other appropriate and acceptable electronic means.

A major rail accident is defined as one resulting in fire, explosion, the potential for an explosion, fatalities, evacuation of the general public, or multiple releases of hazardous materials.

Anytime a consist or other document is provided to CHEMTREC or the appropriate contact a followup call by the carrier should be made to confirm the receipt of the information as well as to provide other additional information pertaining to the incident not contained in the facsimile or electronically transmitted document.

This practice does not preclude any carrier from notifying CHEMTREC or the appropriate shipper contact of a rail incident involving hazardous materials that does not meet the criteria outlined above.

VII <u>Time Sensitive Materials</u>

Railroads and shippers will be responsible for monitoring the shipments (loads & residue) of products classified by the Department of Transportation as being time sensitive.

This monitoring process will, at a minimum, provide a means to ensure the movement of rail cars containing time sensitive materials (for list see Appendix 2) in order to achieve delivery of the product within the time specified by the Department of Transportation.

As warranted, railroads will implement an internal escalation process and communicate with shippers, receivers and other rail carriers concerning any rail car containing a time sensitive product that has been delayed in transit to the extent that it may not reach destination within the time specified by the Department of Transportation. In such cases, an expedited movement of the rail car, or other action as deemed appropriate by the carrier and shipper will be taken.

VIII Special Provision for Spent Nuclear Fuel (SNF) and High Level Radioactive Waste (HLRW)

When a train carrying SNF or HLRW meets another train carrying loaded tank cars of flammable gas, flammable liquids or combustible liquids in a single bore double track tunnel, one train shall stop outside the tunnel until the other train is completely through the tunnel.

IX Applicability

These recommendations apply to rail operations within the United States of America.

(Supersedes Circular No. OT-55-M dated October 1, 2012)

Issued by:

Robert C. VanderClute Senior VP Safety and Operations (202) 639 – 2200 rvanderclute@aar.org

Appendix 1 Spent Nuclear Fuel (SNF) and High Level Radioactive Waste (HLRW) August 5, 2013

HMRC	Proper Shipping Description
4929142	Radioactive Material, Type B(U) Package, Fissile
4929143	Radioactive Material, Type B(M) Package, Fissile
4929144	Radioactive Material, Transported Under Special Arrangement, Fissile
4929147	Radioactive Material, Transported Under Special Arrangement

Appendix 2 Time Sensitive Materials August 5, 2013

Proper Shipping Name	Haz Mat STCC	
20 Day		
Ethylene, refrigerated liquid	4905735	
Hydrogen, refrigerated liquid	4905745	
Vinyl Fluoride, stabilized	4905793	
Chloroprene, stabilized	4907223	
Flammable Liquid, n.o.s. (Methyl Methacrylate Monomer, uninhibited)	4907255	
Hydrogen chloride, refrigerated liquid	4920504	
30 day		
Styrene monomer, stabilized	4907265	
Styrene monomer, stabilized	4907235	

Appendix 3

Sample Request for Hazardous Materials Commodity Flow Information

August 5, 2013

[Company LOGO]

Request for Hazardous Materials COMMODITY FLOW INFORMATION

Organization Reques	ting Information:			
Contact Person:				
Phone Number:				
Email Address:				
Mailing Address:	(Street Address)			
	(City, State, Zip)			
Geographical Descrip	ption of Area for study:			
By signing below I ackno [RAILROAD'S] Hazarde to be restricted informatic [RAILROAD NAME] in organizations for the expr	receive report: Email U.S. Mail (Mark One) wledge and agree to the terms set forth by [RAILROAD NAME] for use and dissemination of the ous Materials Commodity Flow Information. [RAILROAD'S NAME] considers this information on of a security sensitive nature. I thus affirm and agree that the information provided by this report will be used solely for and by bona fide emergency planning and response essed purpose of emergency and contingency planning. This information will not be distributed rt without the expressed written permission of [RAILROAD NAME].			
	questing commodity flow information)			
Return Completed F	Form to: [INSERT RAILROAD NAME AND ADDRESS]			
For [RAILROAD] Use C				
[PERSON RESPONSIE	BLE FOR APPROVAL]:Yes NO Date:			
Hazardous Materials Se	ervice Support:			
Date Request	Received:			
Time Period C	overed:			
Date Report S	ent:			
Repo	ort sent via: □ Email □ U.S. Mail			