

## Following Proper Procedures For Equipment Use In Unloading Will Improve Crude-By-Rail Safety For All

### High-Profile Events Have Raised Questions About Crude-By-Rail Shipping.

Midland warns that railcar equipment and components, such as Vacuum Relief Valves, that are used on crude-oil railcars will only perform to expectations if proper operational procedures are observed and used.

The safety and viability of crude-by-rail shipping has been a constant topic in the news on a seemingly daily basis over the past several months, triggered by the tragic events that occurred in Lac Mégantic, Quebec, last July, and continuing with a number of high-profile incidents that have made headlines throughout North America.

One important area is the need for the proper loading of crude railcars, which, if done improperly and against industry best practices, can result in service interruptions and damage to tank cars, valves and fittings.

Vacuum Relief Valves (VRVs), as defined by the Association of American Railroads (AAR) in its "M-1002 Specifications for Tank Cars," are "[a] pressure-relief device designed to admit air to prevent an excessive internal vacuum and to reclose after normal operating conditions have been restored." VRVs have been used for decades to protect the tank itself from imploding—i.e. a catastrophic failure—as vapors escape from the tank, especially during cleaning operations. VRVs are a relatively inexpensive way to protect an expensive and critical asset.

With the rapid rise in crude-by-rail traffic in recent years, there are many new players entering the marketplace that are unloading tank cars filled with crude oil. When a non-pressure general purpose car is unloaded, the AAR recommends\* "using a vapor-recovery system (Sec. 2.1.15)" and specifically states that "VRVs should not be used to vent pressure (Sec. 3.1.63)."

Properly classifying and securing loaded railcars for shipment is critical to safety, but unloading cars without venting them properly (possibly in order to speed

unloading or to prevent vapors from escaping during the venting process) is critical to safety, as well. By not venting railcars properly (Pamphlet 34 recommends manways and vent valves to be installed at this critical relief point), the VRV can be throttled and held open for potentially hours, an operation for which it was not designed. When this happens, the constant vacuum on the device can pull contaminants, solids and other debris into the seating area, causing damage (especially corrosion) and compromising the VRV's ability to seal off the device properly. A consequence of this is VRVs that cannot seal can typically lead to Non-Accidental Release (NARs) incidents, for which the shipper of record can be held liable for damages with the potential for severe financial penalties.

Stainless steel and enhanced design versions of VRVs, such as Midland's A-212 Series, incorporate a fine-mesh filter on the external portion of the valve, which can prevent and limit debris and contaminants from entering the body of the valve. **However, nothing can prevent these issues better than following well-established, tried-and-true unloading procedures that have been proven to be both safe and effective when servicing crude-by-rail railcars.**

Unsure which Pressure Relief Valve to specify for your Crude Oil or Ethanol tank car?

#### Ask an expert. Ask Midland.

*\* Source: AAR's CPC 1232 – Pamphlet 34, Recommended Methods for the Safe Loading and Unloading of Non-Pressure (General Service) and Pressure Tank Cars*

**NOTE:** This Midland Edge Newsletter is a quick read on the railcar market as it pertains to opportunities or "need to know" news related to Midland products. If you have news to share, please email Darren Wight at [dwight@deanhouston.com](mailto:dwight@deanhouston.com).

### DOT Says Oil Companies Are Holding Back Rail-Safety Data

The U.S. Department of Transportation (DOT) is claiming that oil companies are not providing all the information regulators need to effectively assess the safety of crude-oil transport by rail. DOT officials said in late April that the data they have received is only partial, even though it was requested two months earlier.

The American Petroleum Institute said the industry was not hampering progress on the matter and wanted to know exactly what data was missing so it can be provided.

Full Story: <http://bit.ly/1gR4TBg>  
SOURCE: *Processing Magazine*

### California Legislator Proposes New Crude-By-Rail Safety Bill

In late April, California Assemblymen Roger Dickinson (D-Sacramento) announced plans to introduce legislation aimed at protecting communities from potential crude-by-rail accidents. The bill would provide first responders with more information regarding the makeup of oil and oil products; allow public review of oil-spill contingency plans; and require grants for local spill-contingency plans and training.

Full Story: <http://bit.ly/1iXpWli>  
SOURCE: *Progressive Railroading*

### 2014 Continues To Be Robust For U.S. Freight Rail Traffic

United States freight rail traffic rose during the week ending May 10, extending gains for the year to date, according to the Association of American Railroads (AAR).

U.S. freight rail traffic rose 5.6% for the week when compared to the same week in 2013, while U.S. intermodal volume registered a weekly gain of 7.7%. Total U.S. weekly rail traffic was up 6.6% when compared with 2013.

Full Story: <http://bit.ly/1n9sEwQ>  
SOURCE: *Railway Age*

### Transport Canada Announces Enhanced CBR Safety Regs

On April 23, Transport Canada announced the creation of new crude-by-rail safety regulations that limit trains pulling 20 cars or more of crude oil or ethanol may not exceed 50 mph. Additionally, unmodified older DOT-111 tank cars will be banned from Canadian railways after May 1, 2017.

"(We) support and will implement the relevant railway measures called for in Transport Canada's rail-safety plan," said Claude Mongeau, President and CEO of Canadian National Railway Co.

Full Story: <http://bit.ly/1ftWkMq>  
SOURCE: *Railway Age*

### DOT Secretary: "We Will Bolster Crude-By-Rail Safety"

Speaking during a visit to Casselton, ND, site of crude-by-rail accident in January, U.S. Transportation Secretary Anthony Foxx said that a comprehensive rule-making package will be sent to the Office of Information and Regulatory Affairs (OIRA) with the goal of ensuring that energy products carried by rail are transported safely.

"We're putting every option on the table when it comes to improving the safe transport of crude oil by rail," said Foxx.

Full Story: <http://bit.ly/1kMIBmj>  
SOURCE: *Progressive Railroading*

### Transport Canada Lists Fines For Rail Safety Act Violations

On May 16, Transport Canada listed proposed monetary penalties for those who violate the country's Rail Safety Act. The Railway Safety Administrative Monetary Penalties Regulations fine individuals up to \$50,000 and railroads up to \$250,000 if an inspection reveals that safety rules are not followed.

Full Story: <http://bit.ly/1jNdrJK>  
SOURCE: *Progressive Railroading*

### Minnesota Governor Won't Issue Frack-Sand Moratorium

Saying that he can't personally block the frack-sand industry from expanding in the southeastern portion of the state, Minnesota Gov. Mark Dayton announced that he will not issue a two-year moratorium on frack-sand mining in the area. Dayton had recently been presented with a 6,000-signature petition by an environmental group known as the Land Stewardship Project asking for the mining moratorium.

Full Story: <http://bit.ly/RryLOU>  
SOURCE: *Rock Products*

### AAR: Crude-Oil Rail Shipments Up 74% in 2013

On March 13, the Association of American Railroads (AAR) reported that U.S. Class I railroads originated 407,642 carloads of crude oil in 2013, an increase of 74% from the 233,819 carloads that were originated in 2012. In 2013, crude oil accounted for 1.4% of total U.S. Class I originations.

The upward trend in the number of crude-by-rail shipments is continuing in 2014. As of March 8, there were a reported 142,313 carloads of petroleum and petroleum products shipped an increase of 11.3% when compared to the same time period in 2013.

Full Story: <http://bit.ly/1bNzHPA>

### Upcoming Industry Events

#### 2014

- **TRANSCAER Team Training**  
New Castle, DE (June 11-12)
- **FTR Transportation Conference**  
Indianapolis, IN (Sept. 9-11)
- **AAR Tank Car Committee Fall Meeting**  
Atlanta, GA (Oct. 14-16)
- **North American Fertilizer Transp. Conf.**  
Tucson, AZ (Oct. 19-21)

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