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As Crude-By-Rail Shipping Continues To Escalate, Rail Industry Looks For Ways To Improve Its Safety

The Shale Production Boom Has Led To A Historic Rise In Crude-By-Rail Shipping. This growth, though, may be jeopardized due to recent high-profile derailment incidents. Midland is working to develop equipment that will address these concerns and satisfy any new tank-car regulations.

According to a recent report by the Association of American Railroads (AAR), U.S. Class I railroads shipped a record 108,605 carloads of crude oil in the second quarter of 2013, more than double the 51,474 crude-by-rail shipments that occurred in the second quarter of 2013.

Unfortunately, the increase in crude-by-rail shipping has led to a corresponding increase in the number of high-profile derailment accidents that have occurred among trains transporting shale oil. In the past six months, there have been at least four high-profile, highenergy incidents:

- July 6, 2013: A parked crude-oil train rolls away from a siding, crashes and explodes in the Canadian town of Lac-Megantic, Quebec, killing 47 people.
- Nov. 8, 2013: An oil train derails near the town of Aliceville, AL, with explosions occurring in three tank cars, while as much as 750,000 gallons of oil are spilled.
- Dec. 30, 2013: A train pulling more than 100 crudeoil tank cars crashes into a derailed grain car near Casselton, ND, causing explosions the release of nearly 400,000 gallons of crude oil.
- Jan. 7, 2014: A train carrying crude oil and propane derails in Plaster Rock, New Brunswick, causing the evacuation of 150 nearby residents.

To their credit, the railroads and agencies like the AAR and the Railway Supply Institute (RSI) have been quick to investigate these incidents and call for operational rule changes, improved classification of crude types, and increased regulation of rail tank cars that ship crude oil and other hazardous materials, which are most commonly the DOT-111 models. In fact, both the AAR and RSI have proposed regulatory changes that will make crude-by-rail shipping safer:

- The AAR calls for the retrofitting of 78,000 of the 92,000 tank cars that currently carry flammable liquids, while new cars would require an outer steel jacket and thermal protection, full-height head shields and high-flow-capacity pressure-relief valves (PRV).
- The RSI proposes the modification of the current tank-car fleet in a manner that substantially enhances safety while minimizing engineering risks. Specifically, RSI is working with manufacturers to develop a safety valve that further protects the tank against over-pressurization, and a bottom outlet valve that ensures full containment in the event of a derailment.

Midland Manufacturing agrees the safety level of crude-by-rail shipping needs to be increased and is actively participating in the RSI effort to develop new high-flow PRV technologies. Midland supports a comprehensive approach to new regulations that will improve railcar and valve design, as well as regulations designed to prevent further derailments. Midland is moving forward—regardless of the final scope of any pending regulation—with the development and production of new high-flow PRVs. We are confident that having this technology commercially available will be critical in generating support for the new regulations and the upgrading of the crude-by-rail tank-car fleet.

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 send an email (with a link) to Darren Wight at dwight@deanhouston.com.

Canada Cracking Down On Crude-By-Rail Shippers With Testing

Canada's government has ordered Transport Canada to crack down hard on crude oil shippers who they say continue to evade a directive that they test the contents of tank cars before classifying them as hazardous materials for crude-by-rail transportation. Shippers are attempting to sidestep the testing.

Full story: <u>http://bit.ly/18R8ZZB</u> SOURCE: *Railway Age*

Crude Oil Runs Touch Highest Rates Since July; Refiners Boost

United States. refiners boosted crude oil throughputs to their highest levels since mid-July.

Refinery inputs of crude oil rose for a ninth consecutive week to average more than 16 million barrels per day (b/d) overall for the week ended Dec. 6, according to EIA's Weekly Petroleum Status Report, released on Dec. 11.

While the lift in runs was a modest 25,000 b/d gain from the previous week, the elevated run rate ushered U.S. refiners' overall weekly crude throughputs to their most robust level since the week ended July 12.

Full story: <u>http://bit.ly/1dwWMt1</u> SOURCE: *Oil & Gas Journal*

Siemens Partners with Cummins on New U.S. Locomotives

Cummins and Siemens Rail Systems are partnering to bring a new diesel-electric locomotive to market in the United States. Cummins QSK95 diesel engines will be used in Siemens' diesel-electric locomotives.

The locomotives will be designed for a smoother and more energyefficient ride and will deploy a new engine after-treatment system that will deliver better air quality and reduced emission rates.

Full story: <u>http://bit.ly/1c1Gewk</u> SOURCE: *Rail Resource*

Dow Chemical To Shed More Than 5 Billion In Assets To Streamline

Dow Chemical said on Dec. 2 that it would shed about \$5 billion worth of assets, making it the latest large industrial group to try to streamline itself. The company, based in Midland, MI, has not determined whether it will spin off or sell the assets, which include chlorineproduction facilities, epoxy businesses and brine operations.

Full Story: <u>http://nyti.ms/1baMxr6</u> SOURCE: *New York Times*

North Dakota Oil Rail Shipments Expected To Spike In 2014

Lynn Helms, Director of the Department of Mineral Resources, in North Dakota told the Legislature's Government Finance Committee that he expects as much as 90% of the state's crude will move by rail in 2014, up from about 60% at present.

Full Story: <u>http://bit.ly/1kH323A</u> SOURCE: *Bismarck Tribune*

CN To Serve New Frac Sand Producer in Wisconsin

CN will start serving this month a new frac sand production facility of Source Energy Services (SES) on its Wisconsin rail network.

The SES production facility in Weyerhaeuser, WI, is located on CN's rehabilitated Barron Subdivision. It will have an annual production capacity of 1.2 million tons of high-grade sands and is expected to reach two million tons by the third quarter of 2014.

CN spent \$35 million in 2012 to restore a 40-mile segment of the subdivision between Ladysmith and Poskin, WI, to serve the frac sand market. CN has 11 frac sand facilities on its Wisconsin network. It is seeing substantial increases in frac sand production in this area because of reserves of high-quality and in-demand sands.

Full story: <u>http://bit.ly/1c1q5qF</u> SOURCE: *Rail Response*

Finding Safety In Shale If Oil Fails Is The Hot Trend On Wall Street

The U.S. exploration-and-production sector faces a tricky 2014, largely due to its own success. Rising domestic and Canadian output is leading to a glut in North American oil. When some refineries shut down for maintenance this fall, reducing capacity to process oil, West Texas Intermediate crude prices slumped by 16%—and stalled out this year's rally in E&P stocks by mid-October.

Full Story: <u>http://on.wsj.com/1jbBGqT</u> SOURCE: *Wall Street Journal*

ACC Calls For New Approach To Safety For Rail Transport

The American Chemistry Council (ACC) has called on the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) to implement a more effective strategy to ensure rail safety and prevent incidents with trains transporting chemical substances by rail.

The organization representing the chemical industry of the United States filed its comments to the regulator. pointing out that rail transport is still an important part of the industry and should become the focus of regulatory measures concerning various aspects of safety. For example, the ACC urges the PHMSA to improve tank-car designs and specifications in order to make them safer in case of an accident. However, there is still room for improvement and Tom Schick, Senior Director of Regulatory and Technical Affairs for the ACC, called for the PHMSA and the Federal Railroad Administration to adopt a "comprehensive approach to safety."

Full story: http://bit.ly/1bNzHPA

Upcoming Industry Events

January - March 2014

- Chlorine Institute Spring Meeting New Orleans, LA (March 16-19)
- AAR Tank Car Committee Meeting Dallas, TX (April 16-17)

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