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**FRA issues rule  
preventing  
unattended trains  
carrying  
flammables from  
rolling away**

**Requiring that an  
additional, trained  
individual double  
check that the  
handbrakes have  
been set on a train  
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accidents**

**Railroad & Policy Updates**

The Federal Railroad Administration (FRA) issued on July 30, 2015 a final rule to prevent unattended trains that carry crude oil, ethanol, poisonous by inhalation (PIH), toxic by inhalation (TIH), and other highly flammable contents from rolling away. Railroad employees who are responsible for securing a train will now be permanently required to communicate with another qualified individual trained on the railroad's securement requirements to verify that trains and equipment are properly secured.

The final rule will go into effect 60 days from publication in the Federal Register, the FRA said. Exterior locks on locomotives will also be required by March 1, 2017, and must be utilized when a locomotive has been left unattended, the FRA added

The rule requirements include:

- A qualified and trained railroad employee to properly secure the equipment and verification of the securement with a second trained and qualified employee.
- Additional communication, including job briefings among crew members responsible for the train securement.
- Properly installed and utilized exterior locks on locomotive cabs.
- Setting of sufficient handbrakes.
- Removal of the train reverser.
- Proper use of train air brakes.

The rule applies to the following trains left unattended on a main line, siding, or rail yard:

- Trains carrying and poisonous by inhalation (PIH) and toxic by inhalation (TIH) hazardous materials.
- Trains carrying 20 or more cars of other high-hazard flammable materials.

"Where the Federal Railroad Administration can take smart steps to quickly raise the bar on safety, it will, and that is exactly what we are doing today. Requiring that an additional, trained individual double check that the handbrakes have been set on a train that will help stop preventable accidents," said Acting Administrator Sarah Feinberg. "While today's rule came out of a lesson learned from the Lac-Mégantic derailment, FRA will not hesitate to take additional actions to keep the rail system in the United States safe."

On July 6, 2013, an unattended 74-car freight train carrying Bakken crude oil rolled downhill and derailed in Lac-Mégantic, Canada. Forty-seven people died and many more were injured. While the Canadian government found that there were nearly 20 causes of the accident, a major cause was that the engineer of the train did not properly secure the train, the FRA said.

**Reflectorization  
deadline looming –  
non-compliant cars  
to be restricted in  
interchange**



DOT said that, since the Lac-Mégantic derailment, it has taken more than 30 actions, including regulations, emergency orders and safety advisories, to prevent train accidents and improve the safety of high-hazard flammable trains.

“Today’s rule is part of the Department of Transportation’s comprehensive effort to bolster the safety of trains transporting crude oil and other highly flammable contents,” said U.S. Transportation Secretary Anthony Foxx. “Verifying that a train has been properly secured is a common-sense solution to prevent accidents.”

Read the entire article:

<http://www.railwayage.com/index.php/regulatory/fra-issues-rule-preventing-unattended-trains-carrying-flammables-from-rolling-away.html?channel=40>

### **Mechanical Brief with Steve Christian**

On the whole, I have enjoyed working in the railroad industry. However, there have been some exceptions. The exceptions that stand out the most are crossing accidents where a car or truck ran into the side of a train at a rural unprotected crossing at night. As I recall, all of those accidents resulted in fatalities.

One accident in particular really shook me. A van ran into the side of a black coal train that was being pushed into a siding at low speed in the middle of the night. The speed limit on the public road that crossed the track was 55 mph and there were no skid marks. The scene was quite gruesome.

Many railcar owners have recognized the problem and have applied reflective reporting marks, logos and other markings to make them more visible at night. However, it only makes sense that we have an established standard for all railcars for the safety of the public.

In 2005 the U.S. Department of Transportation - Federal Railway Administration (FRA) enacted rules to reduce highway-rail grade crossing accidents by the application of “retroreflective material” to the sides of all rail freight rolling stock. The material, location and spacing of the reflective material will now be uniform for all railcars. There was a 10 year phase-in program implemented and the absolute deadline for initial application is **November 28, 2015**. Any railcars operating after that date without reflectors applied are subject to civil penalties. Willful violations could result in criminal penalties.

My interactions with others in the industry leads me to believe there is plenty of confusion when it comes to this regulation. By way of this article I hope I can remove some of the confusion. First let me touch on a few important parts of the regulation (49 CFR Part 224) to help you understand what is involved.

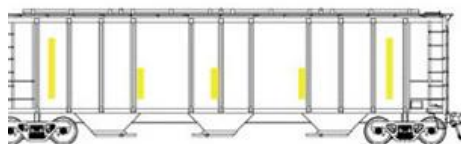
Part 224.5 (Definitions) has a key point that I think is important to understand your responsibility under this regulation. Specifically, “Freight Rolling Stock Owner” is defined as:

**Applies to any person who owns freight rolling stock, a lessee of freight rolling stock, manages the maintenance or use of freight rolling stock on behalf of an owner or one or more lessors or lessees, or otherwise controls the maintenance or use of freight rolling stock**

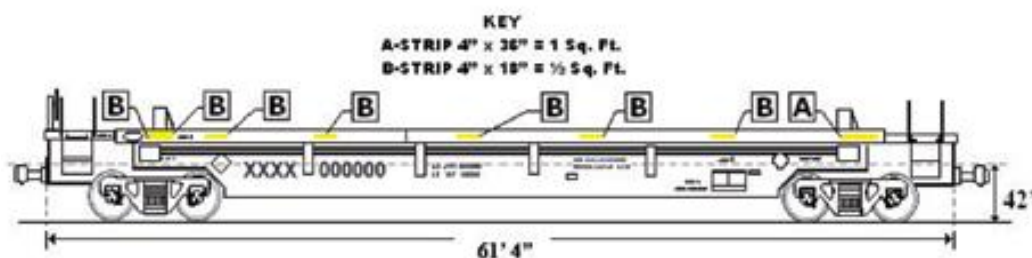
1. Any person who owns freight rolling stock
2. Is a lessee of freight rolling stock
3. Manages the maintenance or use of freight rolling stock on behalf of an owner or one or more lessors or lessees, or otherwise controls the maintenance or use of freight rolling stock.

Part 224.9 (Responsibility for Compliance) allocates responsibility for getting reflective sheeting applied and maintained. Primarily, "Freight Rolling Stock Owners" (as defined above in Part 224.5) and railroads bear this responsibility.

Keep in mind that Part 224.9 also explains that "any person performing any function or task required by this part shall be deemed to have consented to FRA inspection of the person's facilities and records to the extent necessary to determine whether the function or task is being performed in accordance with the requirements of this part." In other words make sure you have a clear audit trail that shows your compliance with all the requirements of this regulation.



**Marking Requirements -  
4" x 36" strips at both ends  
4" x 18" stripes every 12'**



**Make sure you have a clear audit trail that shows your compliance with all the requirements of this regulation**

Part 224.11 (Penalties) details the civil penalties that can be assessed for non-compliance which can range from a minimum of \$650 up to \$105,000 per violation in the most extreme cases. Part 224.11 also states that "any person who knowingly and willfully falsifies a record or report required by this part is subject to criminal penalties under 49 U.S.C. 21311. "

Part 224.109 (Inspection, repair, and replacement) states that when a car undergoes a single car air brake test (SCABT), the car must be visually inspected for "presence and condition" of retroreflective sheeting. In concert with Rule 66 - Reflective Sheeting in the AAR Field Manual, the entity performing the SCABT can make the initial application or perform repairs of the reflective sheeting. However, they can also just inform the person or entity listed in Umler for the reporting marks. This notification will come by way of Job Code 5504 on the Billing Repair Card. Job Code 5504's description in the AAR Field Manual is "REFLECTIVE SHEETING-OWNER NOTIFICATION." The explanation of the job code goes on to say "Sheeting inspected, sheeting requires maintenance and not repaired; owner notification." Once notified of a defect under this section you shall have nine months (270 calendar days) from the date of notification to repair or replace the damaged, obscured, or missing sheeting.

**"Regardless of**

Part 224.111 (Renewal) states that "regardless of condition, retroreflective sheeting required under this part must be replaced with new sheeting no

**condition,  
retroreflective  
sheeting required  
under this part  
must be replaced  
with new sheeting  
no later than ten  
years after the date  
of initial  
installation.”**

**To continue these  
cars in  
uninterrupted  
service beyond  
October 28, 2015,  
you must get the  
reflectors applied to  
these cars between  
now and then**

**Carload traffic  
down July 2015,  
“not necessarily  
reflective of  
fundamental  
weakness in the  
broader economy”**

later than ten years after the date of initial installation.” Why ten years? I have found out that the manufacturers of the reflectors state that the reflective tape starts to deteriorate after 10 years. However, you do not have to remove the previously applied reflective strips. After thoroughly cleaning the surface of the strip, you can apply the new reflectors on top of the old ones. Of course if there is damage to the initial reflector strip you need to take steps to make sure the new strip will adhere properly.

The curious thing about Part 224.111, as I read it, is that it does not specifically require applying new reflectors again after that first renewal. Rule 66 doesn't mention the 10 year renewal at all, let alone subsequent renewals.

The AAR recognizes that there are many cars that have reflectors applied but were not recorded in Railinc/Umler. In that case, you can research your records, especially Billing Repair Cards (BRC's), for information on where and when the reflectors were applied. If you have those records, you can record that information in Umler. If the information is not found, you must record the railcar's built date or November 28, 2005, whichever is later.

The AAR has also determined that they will assign Severity Code and Transportation Code XX - “Prohibited in Interchange” on October 28, 2015. This is one month prior to the FRA deadline. To continue these cars in uninterrupted service beyond October 28, 2015, you must get the reflectors applied to these cars between now and then.

As always, Tealinc stands ready to employ our varied knowledge and talents to work for you.

*Steve Christian is the Manager Value Creation-Railcar Performance Manager for Tealinc, Ltd. You may contact Steve directly out of our Nebraska office at (308) 675-0838 or via email at [steve@tealinc.com](mailto:steve@tealinc.com).*

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## **Railroad Traffic**

The Association of American Railroads (AAR) August 5, 2015 reported weekly U.S. rail traffic, as well as volumes for July 2015 and the first seven months of 2015.

Carload traffic in July totaled 1,376,411 carloads, down 6.5 percent or 95,295 carloads from July 2014. U.S. railroads also originated 1,331,888 containers and trailers in July 2015, up 3.5 percent or 45,538 units from the same month last year. For July 2015, combined U.S. carload and intermodal originations were 2,708,299, down 1.8 percent or 49,757 carloads and intermodal units from July 2014.

In July 2015, six of the 20 carload commodity categories tracked by the AAR each month saw carload gains compared with July 2014. This included: grain, up 6.2 percent or 5,921 carloads; crushed stone, sand, and gravel, up 1 percent or 1,227 carloads; and coke, up 6.1 percent or 1,176 carloads. Commodities that saw declines in July 2015 from July 2014 included: coal, down 12.5 percent or 69,519 carloads, petroleum and petroleum products, down 13.6 percent or 10,691 carloads; and primary

**Carload gains included grain, crushed stone, sand and gravel, and coke. Carload declines included coal, petroleum and petroleum products, primary metals.**

**U.S. 2015 coal production at lowest level since 1987**

**Factors behind the drop in consumption include low natural gas prices and less**

metal products, down 13 percent or 7,167 carloads.

Excluding coal, carloads were down 2.8 percent or 25,776 carloads in July 2015 from July 2014.

Total U.S. carload traffic for the first seven months of 2015 was 8,306,979 carloads, down 4.2 percent or 367,126 carloads, while intermodal containers and trailers were 7,936,917 units, up 2.5 percent or 194,980 containers and trailers when compared to the same period in 2014. For the first seven months of 2015, total rail traffic volume in the United States was 16,243,896 carloads and intermodal units, down 1 percent or 172,146 carloads and intermodal units from the same point last year.

"Railroads are overexposed, relative to the economy in general, to the energy sector. Put another way, changes in the energy sector are having a bigger effect on rail traffic than they are on the economy as a whole," said AAR Senior Vice President Policy and Economics John T. Gray. "For that reason, we don't think declines in overall rail carloads in recent months are necessarily reflective of fundamental weakness in the broader economy."

Visit the AAR at:

<https://www.aar.org/newsandevents/Press-Releases/Pages/2015-08-05-railtraffic.aspx>

### **Industrial Inside**

U.S. coal production is expected to total an estimated 921.5 million st in 2015, down 7.5% from 2014 and the lowest total since 1987, a coal analyst for the Energy Information Administration said July 7, 2015.

Production totals could get pulled down further as a mild summer and continued low natural gas prices weaken domestic coal demand, said Elias Johnson, who co-authored the Short-Term Energy Outlook for July.

"If demand doesn't really rebound because of a warm summer, we could see consumption go even lower and that could lead to production going down," Johnson said. "We'll see what the summer does."

Production is expected to drop in each of the three coal producing regions. The Appalachian region will drop to 237.5 million st, down 12.1% from 2014, the Interior region will drop to 182.2 million st, down 2.7%, and the West will drop to 501.8 million st, down 6.9%, according to the EIA.

Coal exports also are expected to drop to 87.4 million st, down 10.2% from 2014. In 2016, the EIA projects exports will total 88.2 million st.

The EIA also projects coal consumption for electricity generation will decline to 794.8 million st, down 6.6% from 851.4 million st in 2014. In 2016, the agency estimates electric power consumption will total 805 million st, up 1.3% from this year.

Factors behind the drop in consumption include low natural gas prices and less demand due to a mild winter. A mild summer could bring down

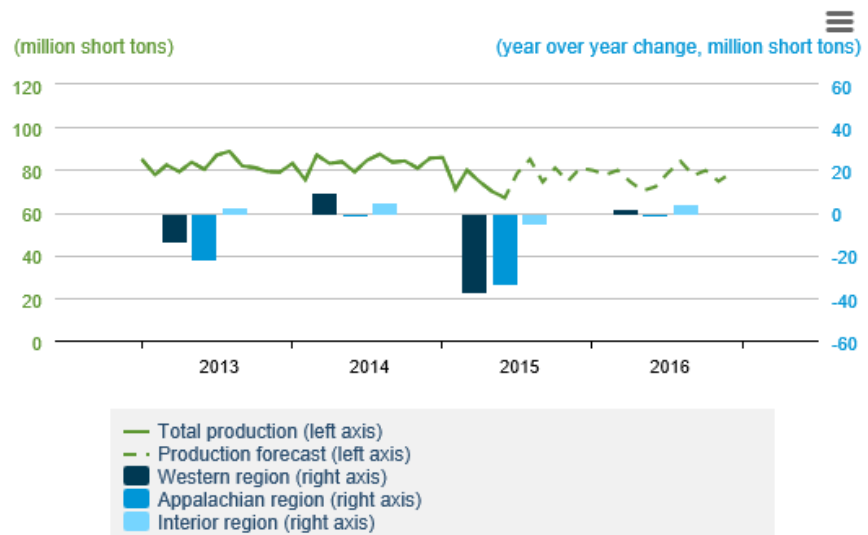


**demand due to a mild winter. A mild summer could bring down those totals further**

**One bright spot for the coal industry in the report shows that as production and consumption for electricity generation are expected to drop in 2015, both are expected to have modest upticks in 2016**

those totals further, Johnson said.

#### U.S. Coal Production



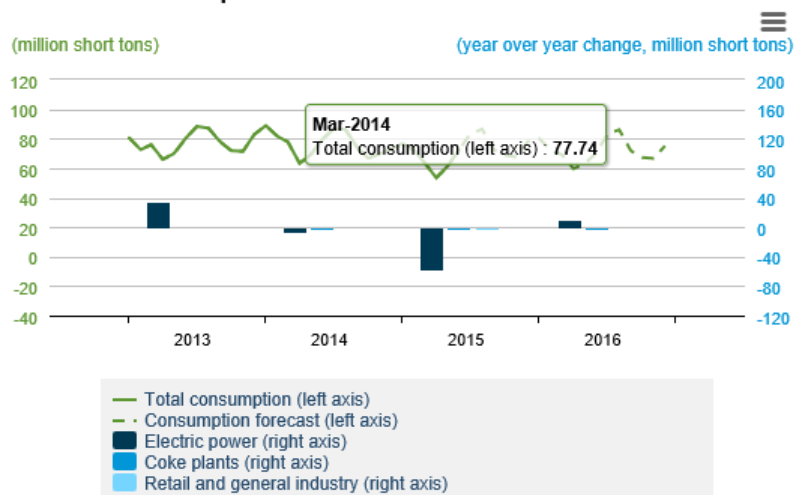
eia Source: Short-Term Energy Outlook, July 2015

[July's] Supreme Court ruling that remanded the Environmental Protection Agency's Mercury and Air Toxic Standards, or MATS, back to lower courts, also is not expected to help as the EIA has not heard of any generator changing course on retiring coal plants, Johnson said.

One bright spot for the coal industry in the report shows that as production and consumption for electricity generation are expected to drop in 2015, both are expected to have modest upticks in 2016.

"We're expecting gas prices to rise and expect a little more demand for electricity," he said. "Even though we are expecting more retirements for MATS, we're making the assumption that the remaining generators will be used at a higher capacity."

#### U.S. Coal Consumption



eia Source: Short-Term Energy Outlook, July 2015

For all sectors, coal consumption is estimated to total 856.5 million st in 2015, down from 916.9 million st in 2014. In 2016, the agency estimates US coal consumption will total 864.7 million st.

**Yellen still thinks  
Fed will raise rates  
this year**

**Yellen once again  
dismissed the  
weakness in the  
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first quarter,  
referred to it as a  
"soft patch" due to  
"transitory" factors**

The agency predicts a 0.5% uptick in coal production in 2016 to 926.5 million st, largely due to the expectation that natural gas prices will increase to \$4.12/MMBtu in 2016 from \$3.84/MMBtu in 2015.

Read the entire article at:

<http://www.platts.com/latest-news/coal/houston/us-2015-coal-production-at-lowest-level-since-21753995>

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### **Financial Focus**

Federal Reserve chair Janet Yellen is still doing her best impersonation of someone at NASA's Mission Control. She's preparing the market for an eventual liftoff for interest rates.

Yellen told members of the House Financial Services Committee [July 15, 2015] that it will be appropriate to raise rates later this year -- as long as the job market continues to improve.

Fed chairs testify twice a year before the House and Senate. Yellen's last appearance was in February. She faced tough questions from the House [July 15, 2015].

Many economists and Wall Street strategists expect the Fed to announce a rate hike at its September meeting. Yellen, in her prepared remarks before the House, did not specifically say rates would go up in September. But she strongly hinted that rates will go up sooner rather than later.

Yellen once again dismissed the weakness in the economy during the first quarter. She referred to it as a "soft patch" due to "transitory" factors. She and several other Fed members have been saying that for months.

She conceded that problems in Greece and China could hurt the U.S. economy, calling the situation in Greece "difficult" and that China "continues to grapple with the challenges posed by high debt, weak property markets, and volatile financial conditions."

But Yellen suggested that some of the doom and gloom about Europe and Asia may be overdone.

"Economic growth abroad could also pick up more quickly than observers generally anticipate, providing additional support for U.S. economic activity," she said, adding that low oil prices should eventually lift consumer spending.

That hasn't happened yet though -- which is a bit of a concern. The government reported a surprise drop in retail sales in June on [July 14, 2015]. Retail sales have been relatively lackluster so far this year despite the huge drop in energy prices.

But Yellen seems convinced that the U.S. economy is back on track. She reiterated that the Fed believes the unemployment rate will continue to drop gradually for the rest of the year. And that's one of the keys to a rate hike.

**Yellen said the Fed would probably raise rates gradually and that the first increase would not be steep - especially if it acted sooner instead of waiting**

While the Fed is also hoping to see inflation pick up modestly to prove that the economy is really on the mend, Yellen said the Fed is confident that inflation should move closer to its goal of 2%.

During the question and answer session, Yellen said the Fed would probably raise rates gradually and that the first increase would not be steep -- especially if it acted sooner instead of waiting.

The Fed slashed interest rates to near zero in December 2008 -- the height of the financial crisis. It has kept rates there since then. The last time the Fed actually raised rates was in June 2006.

So there are some concerns about whether the Fed will be able to boost rates in a way that does not unsettle investors.

Learn more at:

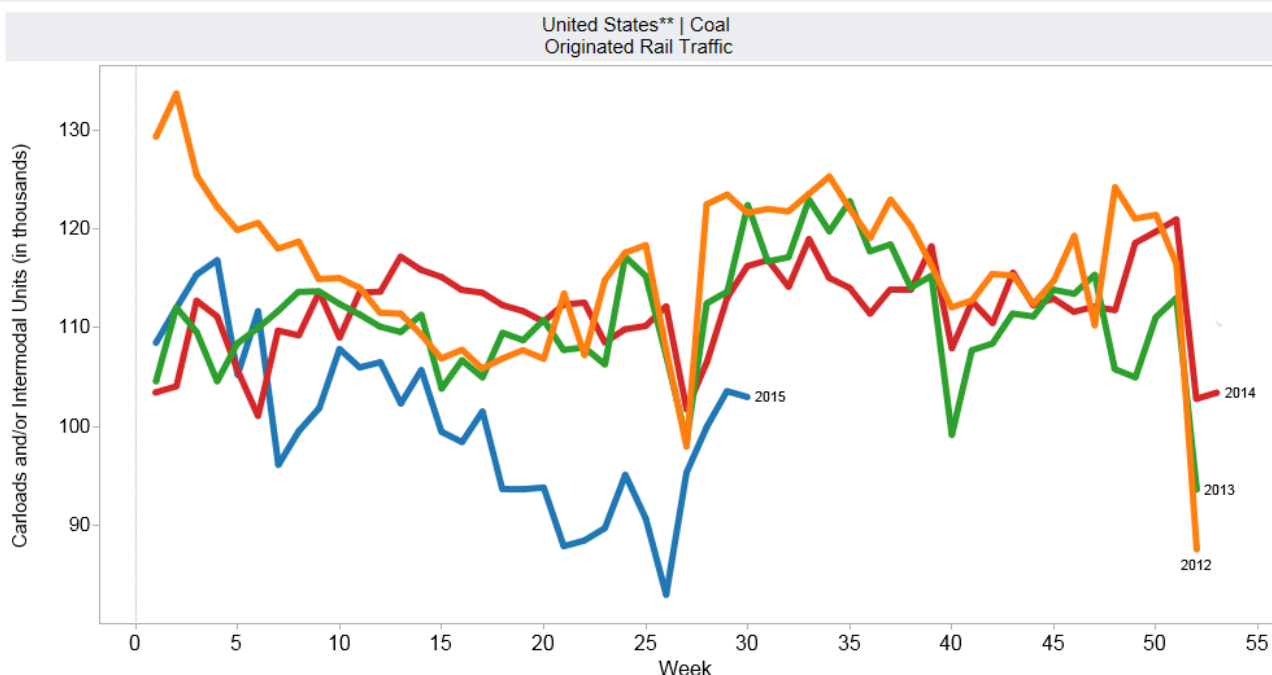
<http://money.cnn.com/2015/07/15/investing/federal-reserve-janet-yellen-house-testimony/index.html>

## The Edge

Transition seems to be the modus operandi of the year. Definitional modus operandi means method of operation. Operating in a transitional mode for an entire year seems crazy unless the business environment has caused one to do so. There are several areas in the transportation sector that have taken on a transitional method of operation. I thought it relevant to discuss a few of those here as several affect rail transportation.

Let's focus on the big kahuna, the energy sector. The energy sector comprised of, for our purposes oil, coal and gas, has taken a significant downturn or continued on a declining trend line since the beginning of the year.

### WEEKLY RAIL TRAFFIC DATA



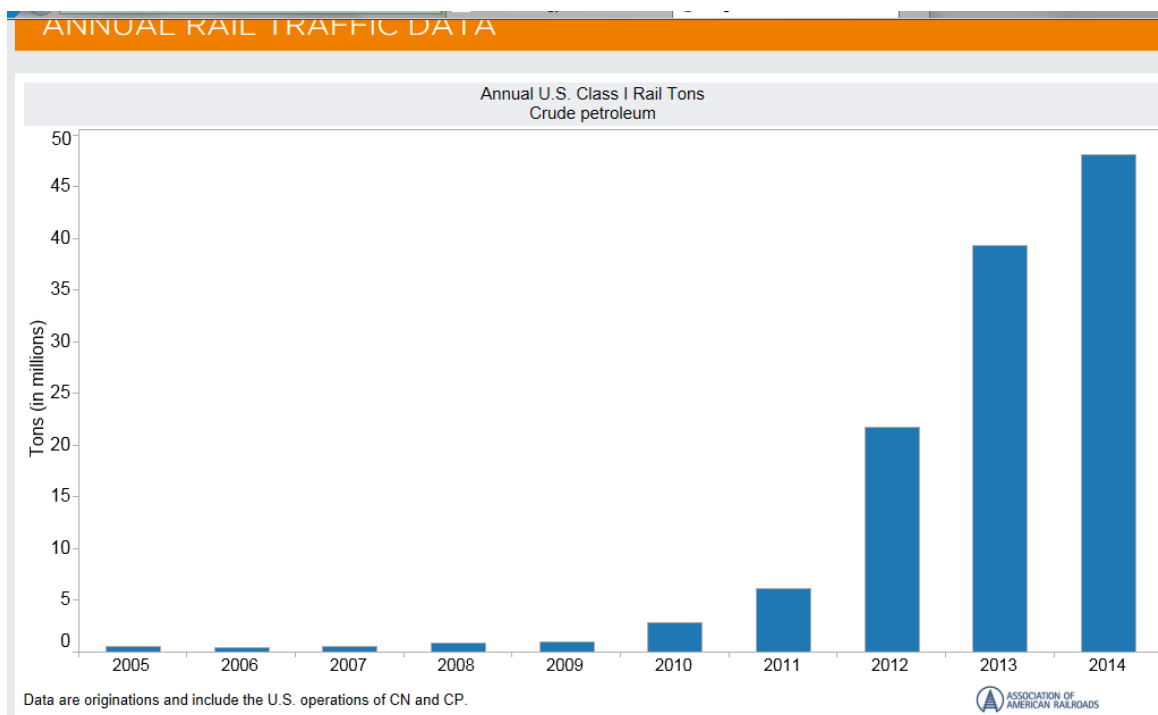
\*Canada - Figures for Canada include the U.S. operations of Canadian railroads.

\*\*United States - Figures for the U.S. excludes the U.S. operations for Canadian railroads.



**Coal.** The fundamental commodity of all Class I railroads. As stated in this newsletter, U.S. coal production is expected to total an estimated 921.5 million short tons in 2015, down 7.5% from 2014 and the lowest total since 1987, a coal analyst for the Energy Information Administration said July 7, 2015. Coal transportation is what the western railroads greatly increased their infrastructure on and is a mainstay in all earnings reports and well managed operating ratio results. Note on the chart above (source: AAR) of the continued significant originated carload decline of coal in the United States.

**Crude Oil.** Next let's take a look at oil, mainly crude oil shipments which are very valuable from a revenue per railcar standpoint. The volume growth of crude petroleum has increased almost at the same time the coal traffic was decreasing. A saviour for the railroads? Maybe. At the beginning of the crude oil rush rail infrastructure requirements were different though, in that crude oil used a different infrastructure (rail yards, rail lines, etc.) than was traditionally invested in from a railroads perspective. Albeit crude oil shipments were a revenue godsend they didn't come without infrastructure and rolling stock costs. Note on the AAR chart below the increase in crude petroleum shipments over time.



Transitional in this sector are several factors effecting future volume growth. To name a few the volatility of Bakken crude, a few derailments and dreadful accidents and the reconfiguration requirements of the DOT111 tank car fleet. Not to mention the fall from \$100+ per barrel to a low hovering near \$50 per barrel. Now in transition the question of the future rail volume versus pipeline. See <https://rbnenergy.com/the-end-of-the-line-how-new-oil-pipelines-could-impact-bakken-east-coast-rail-shipments>. The title speaks for itself. Possible future transition in the crude by rail sector – probably.

**Natural Gas.** So what about natural gas? The impact of natural gas on railroads is its price. When it becomes cheap (sub-\$3/mm btu) it works its way into an alternative fuel for coal and as a secondary impact with crude oil shipments. Natural gas is relatively cheap = less coal shipments now and into the future and more coal fired generation converts to gas.

# NATURAL GAS

OVERVIEW DATA ANALYSIS & PROJECTIONS

GLOSSARY FAQs

## Referring Pages:

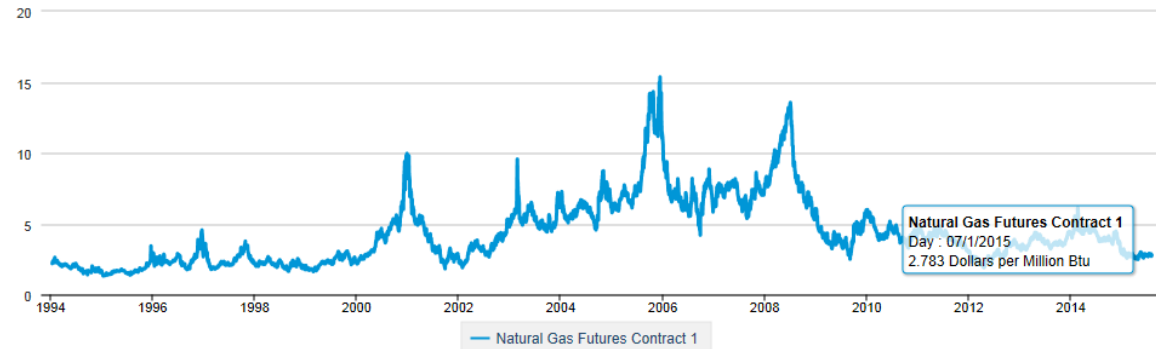
- Natural Gas Futures Prices (NYMEX)

View History: ☒ Daily ☐ Weekly ☐ Monthly ☐ Annual

[Download Data \(XLS File\)](#)

## Natural Gas Futures Contract 1

Dollars per Million Btu



Source: U.S. Energy Information Administration

Chart Tools

**Positive Transitions.** So where are the positive transitions in the rail sector. One that stands out showing longer term growth is crushed stone, sand and gravel. This commodity classification covers a broad spectrum of growth areas. Key economic indicator are as though are highways and road infrastructure indicating some type of federal funding support and housing and building industries indicating a general healthiness in the economy. Albeit the originated tons are growing from a railroad perspective these are generally short haul traffic areas, the volumes are still relatively secondary (100-120 millions tons versus 900+ million tons in coal) and earnings on an overall contribution basis are not exceptional in contrast to say crude oil shipments.

## ANNUAL RAIL TRAFFIC DATA



Data are originations and include the U.S. operations of CN and CP.

ASSOCIATION OF AMERICAN RAILROADS

**Impacts to Rail Shippers.** Transition is a wonderful and sometimes difficult undertaking. I would anticipate that the railroads will transition their infrastructure, assets and pricing to meet their primary goals which are to make money for their stockholders, improve their earnings, lower their operating ratio and be good corporate citizens. The pressure will be to right size their rolling stock fleet (locomotives and railcars), operating and management personnel, and optimize pricing where possible. These transitional stages will cut across all commodity groups and will affect you the rail shipper or receiver. If we can be of service to help you transition please don't hesitate to call or email us.

*We look forward to earning your business!*