What Northwest crude-by-rail terminals mean for North America

March 19 2015

Eric de Place, Policy Director
Sightline Institute
Carbon emissions from burning the fuels shipped in planned projects

One billion metric tons of CO₂ per year

500 million metric tons

- Keystone XL Pipeline: 149M
- NW Fossil Fuel Projects: 227M
- Oil Pipelines: 199M
- Oil-by-Rail Terminals: 132M
- Coal Terminals: 264M
Barrels of oil per day

- Ferndale, WA
  - BP
  - Phillips 66
- Anacortes, WA
  - Tesoro
  - Shell
- Tacoma, WA
  - US Oil
- Grays Harbor, WA
  - US Development
  - Westway
  - Imperium
- Clatskaine, OR
  - Global Partners
- Vancouver, WA
  - NuStar Energy
  - Tesoro/Savage

Northwest oil-by-rail projects
Northwest oil refining capacity
Keystone XL Pipeline
February 10, 2015

Via FOIAonline

Freedom of Information Officer
Bureau of Industry and Security, Room 6622
U.S. Department of Commerce
Washington, DC 20230

RE: Freedom of Information Act Request – Documents Related to Applications, Communications, Guidance, and Actions by the Bureau of Industry and Security on the Definition of Crude Oil and Exporting Oil or Condensate

Dear FOIA Officer:

On behalf of Oil Change International and Sightline Institute, we hereby request access to the records described below pursuant to the Freedom of Information Act, 5 U.S.C. § 552 (“FOIA”) and the pertinent Department of Commerce regulations, 15 C.F.R. § 4.1 et seq.
“All of the rails have done well recently... It’s a business that has real economic advantages.”

“We have found in the last year or so that it’s more dangerous to move certain types of crude, certainly, than was thought previously.”
Why New Improved Oil Trains Are Not Nearly Good Enough

A closer look at the many flaws of CPC-1232 tank cars.

Eric de Place (@Eric_deP) on January 28, 2015 at 3:16 pm

“This Tesoro is committed to the safe and environmentally sound handling of crude oil. The safe design of rail cars in crude service is of paramount importance.” —Keith Casey, senior vice president of strategy and business development, Tesoro.

Last February to much fanfare, the oil company Tesoro—a firm with big plans for oil trains in the Northwest—announced that it would voluntarily replace older tank cars with newer models. In the technical parlance of the rail industry, the firm meant that they would upgrade or replace the
EVOlUTION OF RAIl INDUSTRY TANK CAR STANDARDS FOR CRUDE OIL

The railroad industry is proposing to increase the federal tank car design and construction standards for new tank cars used to transport crude oil. This proposal comes after a previous upgrade proposal which the industry voluntarily adopted and has been observing since October 2011. This graphic shows the additional tank car components included in the latest rail industry proposal.

**HIGH CAPACITY PRESSURE RELIEF VALVE**
- Current Standard: No requirement
- Latest Rail Industry Proposal: Requires a high capacity pressure relief device to protect against a rise in internal pressure resulting from fire. Provides for faster release of product.

**TOP FITTINGS PROTECTION**
- Current Standard: Requires top fittings protection to protect the integrity of valves and fittings used to load product in the event of an accident.
- Latest Rail Industry Proposal: Contains the same requirement.

**STEEL TANK**
- Current Standard: Requires a minimum ½ inch thick steel tank for unjacketed cars and a minimum ¾ inch thick steel tank for jacketed cars.
- Latest Rail Industry Proposal: Requires a minimum ½ inch thick steel tank.

**HEAD SHIELDS**
- Current Standard: Requires minimum ¼ inch thick half height head shields at both ends of the tank car to improve puncture resistance.
- Latest Rail Industry Proposal: Requires ½ inch thick full-height head shields at both ends of the tank car.

**BOTTOM OUTLET HANDLES**
- Current Standard: No requirement
- Latest Rail Industry Proposal: Requires bottom outlet handle reconfiguration to prevent the handle from inadvertently opening the bottom outlets in the event of an accident.

**JACKET AND THERMAL PROTECTION**
- Current Standard: Requires a minimum ½ inch thick steel tank or a ¾ inch thick steel jacket.
- Latest Rail Industry Proposal: Requires the addition of both a ½ inch thick steel jacket around the tank car and thermal protection.

Source: Association of American Railroads, July 2014
“There is not currently enough available coverage in the commercial insurance market anywhere in the world to cover the worst-case [train derailment] scenario.”

— James Beardsley
Global rail practice leader for Marsh & McLennan Companies insurance brokerage unit as quoted in *The Wall Street Journal*
Risk Assessment for Railroads
How taxpayers will end up paying for the costs of a worst case oil train derailment.
Eric de Place (@Eric_deP) and Rich Feldman on May 19, 2014 at 6:30 am

What Do Oil Train Explosions Cost?
And why cities and towns would have to pay the damages.
Eric de Place (@Eric_deP) on December 13, 2014 at 6:30 am

The Big Problem with Letting Small Railroads Haul Oil
The Lac-Mégantic disaster: was it just the brakes?
Eric de Place (@Eric_deP) and Rich Feldman on October 8, 2014 at 10:00 am

This post is 52 in the series: The Northwest's Pipeline on Rails

The disaster in Lac-Mégantic, Quebec—where 47 people were killed by a Bakken oil train derailment—is commonly understood to have resulted from a train slipping its brakes and then rolling downhill into town where it crashed disastrously. It was a tragedy, but it should not be considered just a mechanical accident.

In truth, it was a self-reinforcing chain of events and conditions caused by underinvestment, lack of maintenance, and staff cutbacks. And it’s a lesson the Northwest should heed because it illuminates the risks of allowing small regional and short line railroads to pick up unit trains of crude oil from bigger railroads like BNSF and transport them short distances to refineries and terminals. The Northwest is home to at least two small railroads with big oil-by-rail aspirations.

Given the nasty tendency for oil trains to explode when they derail, it’s perhaps best to ask what a catastrophic accident might cost. No doubt, the thousands of communities visited daily by oil trains would like to know what sort of financial risks they are exposed to. Unfortunately for these governments, the available data suggest that a reasonable worst-case-scenario explosion could do several billion dollars of damage—sums far in excess of railroad insurance coverage.

But how many billions are we talking about?

It’s a surprisingly difficult question to answer with any real precision. The widespread
The total cost for rebuilding and cleaning up Lac-Mégantic, a small town, is now estimated at $3 billion over the next decade.

An explosion in a bigger city could cost perhaps $5 billion.
...the analysis predicted about 15 derailments in 2015, and a decline to about five a year by 2034.

The **207 total derailments** over the two-decade period would cause $4.5 billion in damage, according to the analysis, which predicts **10 “higher consequence events” causing more extensive damage and potential fatalities.**

**If just one of those more severe accidents occurred in a high-population area, it could kill more than 200 people and cause roughly $6 billion in damage.**

-- Matthew Brown and Josh Funk, Associated Press
As a group, these small railroads have an accident/incident rate nearly 3 times higher than Class 1s.
BNSF carries an estimated $1.5 billion in coverage.

Yet many small RRs carry just $25 million in liability coverage. (Even G&W only has $500m.)
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