Tesoro-Savage Oil Terminal Threatens Public Safety in Vancouver

Lac-Megantic oil train explosion. July 2013. The derailment and explosion killed 47 people. Photo: Canadian Broadcasting Company.

A huge new oil terminal threatens Vancouver, Washington and rail communities along the Columbia River. According to the Vancouver *Columbian*, Tesoro and Savage companies propose to build and operate the largest oil-by-rail facility in the United States at the Port of Vancouver.

Unprecedented public safety hazards

Tesoro Savage proposes shipping a **staggering 360,000 barrels of crude oil each day by rail to the Port of Vancouver, Washington.**

- The proposed oil terminal would require **4-6 unit trains per day**[1], with each train extending for **approximately 1.3 miles**. Each car carries over 30,000 gallons of oil, and each 100-car train can carry in excess of 3 million gallons of oil.
- There have been **10 oil train explosions in 2014 and 2015 alone** – many involving upgraded oil tank cars.[2] The industry plans to continue using unsafe rail cars for the foreseeable future.
- According to AP, in derailments since 2006, "At least nine of the trains, including the CSX train that derailed in West Virginia, were hauling oil from the Northern Plains' Bakken region that is known for being highly volatile. Of those, **seven resulted in fires**."[3]
- Bakken crude oil is notoriously volatile, with higher levels of dissolved propane and other gases that lead to explosions when rail cars derail, puncture, and spill Bakken oil.[4]
- Bakken crude is high in **benzene** and other volatile gases that pose a risk to first responders.[5]

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[1] This depends on the size of tank cars and number of cars per train. Assuming a 110-car train with largest cars, each train would carry roughly 75,000 barrels of oil, resulting in 5 full trains of oil arriving at the Vancouver terminal each day.

[2] http://daily.sightline.org/2015/05/06/oil-train-explosions-a-timeline-in-pictures/, Note - 2014 and 2015 derailments in Galena, Ill. and Norfolk, VA involved CPC-1232.

[3] AP. February 22, 2015. "Fuel-hauling trains could derail at 10 a year." http://www.washingtontimes.com/news/2015/feb/22/ap-exclusive-fuel-hauling-trains-could-derail-at-1/?page=all

[4] Id. and http://daily.sightline.org/2014/01/21/why-bakken-oil-explodes/

[5] http://www.desmogblog.com/sites/beta.desmogblog.com/files/Baseline%20Oil%20Sands%20Dilbit%20%26%20Bakken%20Crude.pdf & WA Dept. of Ecology, presentation, Dave Byers. Nov. 2013, states that Bakken oil may contain up to 3% benzene.

- Surrounding agencies, including Vancouver, do not possess sufficient resources including manpower, Class B Foam and water supply to extinguish Bakken crude oil along the proposed oil train route for the proposed Tesoro-Savage oil terminal.[6]
- PHMSA warned in 2014: "…recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region may be more flammable than traditional heavy crude oil,"[7] and industry experts say that Bakken oil is "flammable like gasoline."[8]
- The rail industry claims that 99.9% of oil shipments arrive at their destination safely. That means 0.1% doesn't make it—and 0.1% of Tesoro's proposal exceeds 5.5 million gallons of oil.[9] Even assuming that the cars are 99.99% spill-proof, **rail shipments for the Tesoro project would still spill a staggering 550,000 gallons of oil per year.**
- **New tank oil rail cars rupture at 12 MPH.** "Safer" DOT 117 oil tank cars are only puncture proof at speeds up to 12 MPH.[10]
- **Major spills leave behind 10-15% of the spilled oil.**[11] Even the best cleanup efforts often leave a majority of the oil behind, creating toxic hazards.
- The US Department of Transportation estimates that increased crude-by-rail shipments could lead to **10 oil derailments a year, costing $4.5 billion over two decades**.[12]
- "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."**[13]
- **47 people were killed when an oil train derailed in Lac-Megantic, Quebec.** A runaway oil train derailed and exploded in Lac Megantic, Quebec killing 47 people in July 2013.
- **The Lac-Megantic disaster has cost $2.7 billion,** according to city officials in Lac Megantic estimate tasked with rebuilding the town over the next decade.[14]
- Oil train derailments can cause large evacuations, such as the evacuation in Casselton, ND or New Brunswick, Canada, where residents **more than a mile away** were forced to evacuate.
- According to recent testimony of the City of Vancouver regarding the proposed NuStar oil terminal, "a spill of Bakken crude oil onto the Columbia River would produce **a significant volume of flammable vapors** that do not dissipate easily and could come into contact with an ignition source, resulting in a **fire on the water** that could reach the marine vessel or oil loading facilities, resulting in explosion, rupture, and discharge of oil."[15]
- The City also wrote, "Because of its highly flammable nature, oil train derailments result in the risk for explosions, fireballs, and pool fires. Multiple tank cars may be involved. The fires are very

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[6] Resolution. Skamania County Fire District 4. July 2015.
[7] http://daily.sightline.org/2014/01/21/why-bakken-oil-explodes/
[8] http://bakkenshale.com/news/bakken-oil-flammable/
[9] http://www.washingtontimes.com/news/2015/feb/26/edward-hamberger-freight-rails-investing-in-safety/. *Edward R. Hamberger is president and CEO of the Association of American Railroads.*
[10] http://www.thompsonhine.com/publications/dot-proposes-new-tank-car-standards-classification-rules-operational-controls-for-crude-oil-ethanol-transportation
[11] iv http://science.time.com/2011/07/11/why-the-yellowstone-oil-spill-is-so-tough-to-clean-up/
[12] AP. February 22, 2015. "Fuel-hauling trains could derail at 10 a year." http://www.washingtontimes.com/news/2015/feb/22/ap-exclusive-fuel-hauling-trains-could-derail-at-1/?page=all
[13] Id.
[14] http://www.pressherald.com/2014/04/17/after-end-of-the-world-explosion-lac-megantic-aims-to-rebuild/
[15] Exhibit 23 to City of Vancouver testimony re: NuStar oil appeal. August 2015.

difficult to combat due to the volatility and the volume of flammable material present; they generate high heat and a black cloud of smoke, both of which deter detection of the extent of the problem as well as containment. **This smoke can be toxic; oil fires have resulted in evacuations for the protection of public safety."**

Public Safety Leaders Are Speaking Up to Stop Oil Train Risks

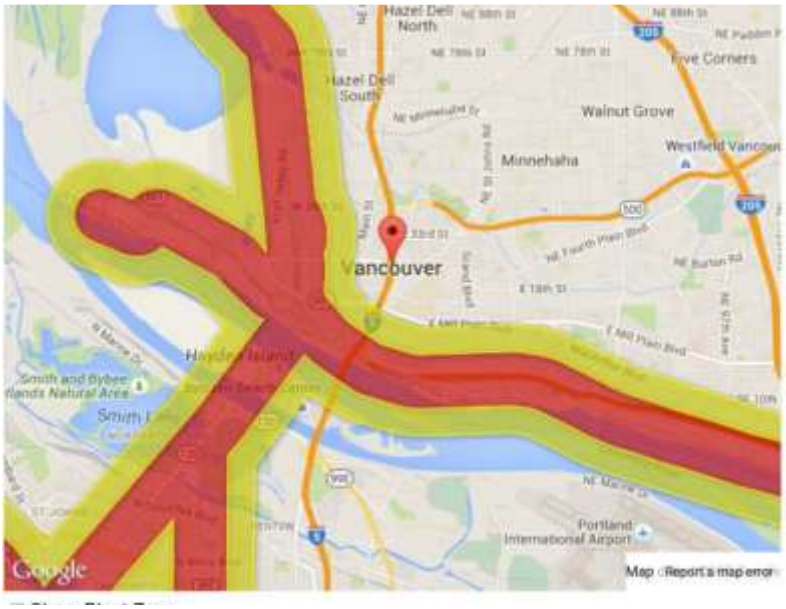
"Trains carrying combustible crude oil continue to move regularly through populated communities and pose a serious and immediate safety threat."[16]

- Harold Schaitberger, International Association of Firefighters. May, 2015.

We don't have to imagine how dangerous an oil train derailment could be. We have seen the results of oil train derailments, fires, and explosions on too many occasions to ignore the implications for our communities. A derailment, spill, or fire in Vancouver or anywhere along the BNSF rail line would have devastating public safety impacts on our communities, putting the lives of first responders and nearby residents at risk.

In response to the oil train hazard, in 2014, the City of Vancouver voted to oppose the Tesoro-Savage oil-by-rail terminal, citing public safety hazards as a critical concern. The WA State Firefighters Association also called for more intense scrutiny of oil-by-rail hazards, and recently the Skamania County Fire District 4 to oppose new oil-by-rail shipments.

Because of the overwhelming safety hazards associated with the proposed project, the Port of Vancouver should act immediately to withdraw from the proposed Tesoro oil terminal project.



Above: 0.5-mile and 1-mmile hazard zones overlap most of City of Vancouver. USDOT 2015 Final Rule study suggests evacuation radius of 1 mile for oil spill and fire, and 0.5 miles for spill alone. Source: ForestEthics.

[16] http://www.huffingtonpost.com/2015/05/05/firefighters-oil-by-rail_n_7216054.html