

No Crude Oil by Rail Resolution: Explanatory Memo

Recommendation: Adopt a resolution opposing the transport of crude oil by rail along the Union Pacific railway through Oregon, the Willamette Valley, and the City of Eugene.

Background: The eminent and growing danger of climate change has been recognized by international scientific and governmental bodies around the world. (1) Hoping to avoid worse-case scenario climate impacts, the U.S. government (2), the State of Oregon (3), and the City of Eugene (4) have all set greenhouse gas (GHG) emission-reduction goals. To meet these goals, the use of all forms of fossil fuel must be profoundly curbed, immediately.

A transition from fossil fuel energy to non-carbon-producing forms of energy has begun in the U.S. However the oil industries are continuing to increase domestic oil and gas production, including production from unconventional sources like the Bakken Formation in North Dakota and Canada and the tar sands in Alberta, Canada. Because of this production boom, a surge has occurred in the number of trains transporting crude oil throughout the U.S., including through the state of Oregon from production areas in Canada and the upper Midwest to refineries in California.

Trains carrying crude oil are called High Hazard Flammable Trains (HHFT) by the US Department of Transportation. (5) There are several routes taken by HHFT to the California refineries, one of which is into Northern California through Eugene on the Union Pacific (UP) tracks from Portland. The UP routes travel through difficult terrain (e.g. The Columbia River Gorge), along vital waterways, and through populated areas. A substantial portion of the refined product is ultimately destined for export, not for use in the U.S., despite claims about achieving domestic energy independence, producing record profits for the oil companies. (6)

Transport of crude oil by rail has increased already and is expected to expand.

The boom in oil production has led to a surge in transport of oil by rail throughout the U.S. The Association of American Railroads reports that 493,146 carloads of crude oil were shipped by rail in 2014, compared with 9,500 carloads in 2008, a fifty-fold increase in six years. (7)

Future oil and gas company decisions and market forces will continue to affect the transport of crude oil by rail. A 2015 report by the National Resources Defense Fund and 29 partners states that, if industry plans for pipelines, tankers and rail transport move forward, the amount of tar sands oil moving to the West Coast would increase by 1.7 million barrels per day over the next 2 decades. (8) New and/or existing infrastructure facilities in California could increase their capacity for refining and

exporting petroleum products, which in turn would lead to a further increase in transport of crude by rail through Eugene. Market forces such as higher gas prices, refinery shutdowns for maintenance or emergencies, and denial of pipeline projects could mean more oil moving by rail through Eugene.

Transport of crude oil by rail is dangerous

Oregon and all states and provinces subject to this crude oil production and transport boom are extremely vulnerable to the dangerous impacts of a derailment, spill, fire or explosion.

The Pipeline and Hazardous Materials Safety Administration (PHMSA) has issued a Rail Safety Alert warning that oil from the Bakken Formation and the Alberta tar sands is more flammable than other types of crude oil. (9)

Seventeen catastrophic incidents have occurred in the U.S. since 2013 involving these trains (10).

More crude oil was spilled in U.S. rail accidents in 2013 than in the preceding four decades combined; more than 1.5 million gallons was spilled in 2013 alone. (11)

On July 6, 2013, 74 rail car train loaded with flammable Bakken crude oil derailed in Lac Megantic, Quebec, dumping 1.5 million gallons of crude into the downtown. The resulting fire and explosions killed 47 people, orphaned 27 children, burned dozens of buildings, caused over \$1 billion in damage and required the removal and decontamination of 60,000 cubic meters of soil. Lac Megantic is very similar in size to Mosier and Eugene, and is also similar to these 2 towns in that the railroad track runs directly through downtown. (12)

In 2014, a record high of 141 "unintentional releases" occurred. (13)

On June 3, 2016, in Mosier, OR 16 oil cars derailed, and 4 exploded and burned. 42,000 gallons of Bakken crude were spilled into the soil, the Columbia River and the town's water supply. This derailment was caused by broken fasteners on the track itself. (14) Three days later, before Mosier had potable water or a functioning sewer system, trains carrying crude were again passing through the town. (15).

On September 27, 2016, 13 cars derailed in Eugene, one of which was loaded with liquefied petroleum gas (propane). (16)

Similar spills and accidents have occurred in numerous states such as Virginia, West Virginia, Wisconsin, Illinois, Alabama, North Dakota, and Montana. (17)

Current notification rules are inadequate

Federal notification rules make it impossible to know when HHFT will be traveling through Eugene. Because of concerns regarding energy security, federal oversight agencies do not allow the railroads to inform local jurisdictions when hazardous materials are moved by rail through their communities. By DOT rules promulgated in May 2015, the railroad's only obligation to report is to the Oregon State Emergency Response Commission (SERC) when large shipment are being moved (defined as 20 cars together, or 35 cars across an entire train, the latter equivalent to about one million gallons). (18) Despite lacking information critical to any preparedness planning, local jurisdictions must create their own emergency response plans.

Problems with car safety, and insufficient federal regulation/oversight

PHMSA has concluded that Bakken crude oil is more highly volatile and flammable than crude from other areas, and therefore more dangerous to ship by rail. Still, DOT and the various private rail companies have been slow to make changes in how crude is transported by rail that would increase safety.

Crude oil is being transported in significant volumes across the US and Canada in structurally deficient DOT 111 rail tank cars, originally designed to haul corn syrup. (19) Canada ordered a phase out of over 5,000 older rail tank cars by the end of May 2014. (20) Because the U.S. had not yet decided on tank car regulation, the new regulation in Canada forced these older tank cars to be used exclusively in the U.S.

New rules were promulgated by PHMSA in 2015 to increase the safety of transport of crude by rail within 3-5 years (e.g. Upgrades to DOT 111 rail tank cars and phasing in more of the upgraded CPC 1232 tank cars). (21) However, these rules only apply to trains which meet the definition of High Hazard Flammable Train (20 consecutive cars, or more than 34 cars of oil across an entire train); trains with fewer cars may continue to use the most unsafe cars. Many of the accidents described above involved fewer than 35 cars, (e.g. Mosier, OR: 4 cars). Furthermore, only about 20% of the faulty cars had been replaced as of the first quarter of 2016. (22)

The Rail Safety Improvement Act of 2008 is a U.S. federal law enacted by congress to improve rail safety by requiring positive train control (PTC) technology (computerized surveillance and braking technology to monitor and control train movements so as to prevent human-error accidents) to be installed on most of the US railroad network by 2015. However, in October 2015 and at the request of the Federal Railroad Administration, congress extended the deadline to 2018. (23)

Health problems related to train traffic

Crude oil trains hurt our community even when spills, explosions or fires do not occur. Exposure to particulate matter from diesel engines has been linked to impaired pulmonary development in adolescents; increased cardiopulmonary mortality; measurable pulmonary inflammation; increased severity and frequency of asthma attacks, emergency room visits, and hospital admissions in children; increased rates of heart attacks and strokes in adults; increased risk of cancer; and increased asthma and lung disease in children. (24)

Authority of state and local governments

Responsibility for mitigating the impacts of transporting crude and other commodities by rail has been challenged by the railroads, which claim federal pre-emption and assert that other agencies have no authority to mitigate the impacts. However, this is incorrect. Every permitting agency - cities, counties, and air districts- have the authority to deny land use and other permits if the applicant refuses to mitigate impacts. PHMSA and the Federal Emergency Management Agency recognize the rights of state and local jurisdictions in these regards. (25, 26)

Other jurisdictions are taking action to keep their communities safe

Other state and local jurisdictions across the U.S. have used resolutions and other legal instruments to express their opposition to the transport of crude oil by rail through their communities, and to limit the expansion of refining, port and export facilities.

New York Governor Andrew Cuomo recognized the risk of transporting volatile crude by rail, passing Executive Order # 125 in 2014, directing New York State agencies to conduct a comprehensive review of crude by rail transport safety procedures and emergency response preparedness. (27).

Pursuant to this Order, Albany County, NY issued a moratorium on crude increases at the Port of Albany pending a public health investigation. (28)

In the western U.S., several cities in Oregon, California, and Washington have passed resolutions or taken other actions concerning the safety of and in opposition to transporting crude oil by rail. (29,20,31)

The No Crude Oil by Rail Resolution aligns with Eugene's laws

In July 2016, Eugene City Council voted unanimously to update the Climate Recovery Ordinance of 2014 (32) to reflect the "350 ppm by 2100" standard which scientists say is needed to stabilize our climate system. To achieve these community-wide GHG reductions, the City is mandated to reduce its emissions by 7.6% annually. In order for the city to reach this goal, it must promote renewable and sustainable means of transportation and lifestyle, which requires the phase out of fossil fuels. Opposing crude by rail through Eugene would align with these progressive laws, laying out a path to a cleaner and healthier planet for future generations.

End: No Crude Oil by Rail Resolution: Explanatory Memo

Citations

1. United Nations Framework Convention on Climate Change
<http://unfccc.int/2860.php>
2. National Aeronautics and Space Administration
<http://climate.nasa.gov>
3. State of Oregon, position on climate change
https://www.oregon.gov/energy/P-I/REWG/docs/climage_change_agenda_1008.pdf
4. City of Eugene, Climate Recovery Ordinance
<https://www.eugene-or.gov/3211/Climate-Recovery-Ordinance>
5. DOT May 2015 final rule: "Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High Hazard Flammable Trains"
 1. Definition of high hazard flammable trains (20 cars together or 35 across entire train, 70 for braking rules)
6. Los Angeles Daily Times
<http://www.dailynews.com/opinion/20150727/gas-being-exported-from-california-despite-shortage-thomas-elias>
7. Association of American Railroads
<https://www.aar.org/BackgroundPapers/US%20Rail%20Crude%20Oil%20Traffic.pdf>
8. National Resources Defense Fund
<https://www.nrdc.org/experts/anthony-swift/report-highlights-industry-plans-flood-west-coast-tar-sands>
9. PHMSA Rail Safety Alert: Bakken is more flammable than other crude oil
http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/1_2_14%20Rail_Safety_Alert.pdf

10. [riverkeeper.org](http://www.riverkeeper.org/campaigns/river-ecology/crude-oil-transport/crude-oil-transportation-a-timeline-of-failure/) <http://www.riverkeeper.org/campaigns/river-ecology/crude-oil-transport/crude-oil-transportation-a-timeline-of-failure/>
11. McClatchy reports, spills in 2013
<http://www.mcclatchydc.com/news/nation->
12. Wikipedia, Lac Megantic Rail Disaster
https://en.m.wikipedia.org/wiki/Lac-Mégantic_rail_disaster
13. NBC News, citing PHMSA data
<http://www.nbcnews.com/news/investigations/oil-train-spills-hit-record-level-2014-n293186>
14. U.S. Department of Transportation, Federal Railroad Administration, Preliminary report, June 32, 2016
<http://www.efsec.wa.gov/Tesoro%20Savage/Adjudication/Exhibits/Tesoro/Exhibit%203125-000005-VAN.pdf>
15. thinkprogress.org, Mosier spill
<https://thinkprogress.org/they-did-everything-they-could-have-done-the-tragedy-of-the-oregon-oil-derailment-337740469311#.m84oy5z2r>
16. Register-Guard, Eugene derailment.
<http://registerguard.com/rg/news/local/34835321-75/13-car-train-derailment-prompts-hazmat-precautions-in-west-eugene.html.csp>
17. [riverkeeper.org](http://www.riverkeeper.org/campaigns/river-ecology/crude-oil-transport/crude-oil-transportation-a-timeline-of-failure/). <http://www.riverkeeper.org/campaigns/river-ecology/crude-oil-transport/crude-oil-transportation-a-timeline-of-failure/>
18. U.S. Department of Transportation, Notification of state and local jurisdictions regarding oil train movements https://www.transportation.gov/sites/dot.gov/files/docs/final-rule-flammable-liquids-by-rail_0.pdf
19. U.S. Department of Transportation, Safety requirements for oil tank cars
https://www.transportation.gov/sites/dot.gov/files/docs/final-rule-flammable-liquids-by-rail_0.pdf
20. Transportation Safety Board of Canada
<http://www.tsb.gc.ca/eng/recommandations-recommendations/rail/2014/rec-r1401.asp>
21. U.S. Department of Transportation, Safety requirements for oil tank cars
https://www.transportation.gov/sites/dot.gov/files/docs/final-rule-flammable-liquids-by-rail_0.pdf
22. Register -Guard: Upgrading or replacing out-dated tank cars.
<http://dot111.info/2016/07/13/slow-progress-seen-on-faulty-crude-oil-rail-cars/>
23. National Transportation Safety Board, delay in PTC requirement
<http://www.nts.gov/safety/mwl/Pages/mwl7-2016.aspx>
24. California Office of Environmental Health Hazard Assessments, Health hazards of diesel fuel
<http://oehha.ca.gov/air/health-effects-diesel-exhaust>
25. PHMSA, hazard mitigation
http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Pipeline/PIPA_Hazard_Mitigation_Primer_Final_508v4.docx
26. FEMA, hazard mitigation <https://training.fema.gov/hiedu/docs/fem/chapter%207%20-%20hazard%20mitigation.doc>

27. Department of Environmental Conservation, New York State: Comprehensive review of safety procedures and emergency preparedness re: oil trains
<http://www.dec.ny.gov/permits/95614.html>

28. Albany County, NY, Albany Moratorium http://www.albanycounty.com/Libraries/County_Executive/DOH_Moratorium.sflb.ashx

29. Portland, OR 2015, Fossil Fuel Infrastructure Binding Policy
<http://www.portlandoregon.gov/citycode/?c=69548&a=557499>

30. California jurisdictions with pertinent resolutions
<http://maps.fractracker.org/latest/?appid=2c9e89bd4c9a4047a814ccce7f1d7514>

31. Seattle WA actions re: oil trains
<http://www.seattle.gov/council/issues/oil-train-safety>

32. City of Eugene, Climate Recovery Ordinance
<https://www.eugene-or.gov/3211/Climate-Recovery-Ordinance>

No Crude Oil by Rail Resolution

Resolution opposing transport by rail of hazardous fossil fuel materials including crude oil, specifically through Eugene

Whereas, The people of the City of Eugene realize that the continued burning of fossil fuels is causing planetary warming and that such climate change is a threat to all life on this planet; and

Whereas, The people of the City of Eugene recognize that we all have a duty to stop the warming of the planet and to safeguard the health and safety of all Eugene residents; and

Whereas, The people of the City of Eugene have the right to public safety, health, and welfare, which includes the right to be free from the danger of explosion or fire from railway cars carrying crude oil; and

Whereas, Trains carrying crude oil from the Bakken shale formation in Canada and North Dakota and the Canadian tar sands in Alberta, Canada to refinery and export facilities in California currently pass through downtown Eugene along the Union Pacific rail tracks; and

Whereas, These tracks also run through neighboring communities, directly by the University of Oregon, along waterways including the Willamette River, through densely populated areas, sensitive environments and productive agricultural land; and

Whereas, These types of crude oil are highly volatile and flammable, more so than other crude oils, and are known to contain elevated concentrations of benzene, a potent carcinogen; and

Whereas, Shipments of crude oil by rail in the US increased over 50-fold, from 9500 carloads in 2008 to almost 500,000 in 2014; and

Whereas, Transport of crude by rail through Oregon and Eugene can be expected to continue and possibly increase further because of future oil and gas company decisions and market forces; and

Whereas, The enormous increase in transport of crude oil by rail has been accompanied by a similar rise in spills and accidents, reaching a high of 141 in 2014; more crude oil was spilled in US rail accidents in 2013 (more than 1.5 million gallons) than in the preceding four decades; and

Whereas, In July 2013, 72 tanker cars loaded with 2 million gallons of flammable crude oil derailed in Lac Megantic, Quebec causing explosions that killed 47 people and caused \$1 billion in damage; and

Whereas, In June 2016, four train cars carrying crude oil derailed coming through the Columbia River Gorge in the town of Mosier, OR and caught fire, prompting evacuation of residents, schools and businesses, and damage to the local water supply, sewer system and soil; and

Whereas, In September 2016, 13 cars derailed here in Eugene, including one containing highly flammable liquefied petroleum gas (propane); and

Whereas, Hauling crude oil into Oregon involves traversing some of the most challenging mountain passes, areas laced with earthquake faults, and numerous unsafe old steel and timber bridges over main waterways that supply drinking water to communities, greatly increasing the probability of serious accidents with grave consequences to Oregonians; and

Whereas, Crude oil is being transported in significant volumes across the US and Canada in structurally deficient rail cars, including cars designated as DOT 111 rail tank cars originally designed to haul corn syrup. DOT promulgated updated safety specifications for cars and transport regulation along rail lines, but the phase-in of these standards has been slow, haphazard and under-supervised, so that many of these unsafe cars are still in use, and

Whereas, Federal regulations for shipping companies meant to improve rail safety for crude oil transport and to provide worse-case scenario emergency response plans will not be in place until 2018 or later; and

Whereas, Eugene is not advised of the times and number of cars loaded with oil moving through the city, and the rail carriers are not required to notify state officials unless more than 1 million gallons of oil is being transported on a single train, although devastating

accidents have occurred with much lesser volumes; and

Whereas, Increased rail traffic in Oregon from crude oil will lead to an increase in diesel emissions and particulate matter in communities along rail lines, and exposure to such emission can cause serious health hazards, especially in children; and

Whereas, Historically, when environmental accidents do occur, oil companies spend years in litigation over damages, a strategy to undercut payments to affected communities or deflect blame; and

Whereas, Other states and communities have also recognized the risk of crude oil transport by rail and have called for comprehensive reviews of safety procedures and emergency response preparedness, limitations on increases in capacity and transport, and/or have passed resolutions in opposition to transporting crude by rail; and

Whereas, Opposing crude by rail through the Eugene community would align with Eugene's Climate Recovery Ordinance. The cumulative impacts of the crude oil traffic through Eugene and other parts of Oregon, in addition to the cumulative upstream and downstream greenhouse gas impacts of these fossil fuels, must be analyzed prior to the transport of any of those hazardous materials through our communities; and

Now Therefore, Be it resolved that the City of Eugene City Council opposes using existing Union Pacific rail lines to transport hazardous crude oil through Eugene, other populated areas in the Willamette Valley, and along Oregon waterways, and resolve to:

1. File comments opposing any Oregon Department of Environmental Quality (DEQ) documents and any draft permit approvals such as air permits or zoning changes for transport of crude, as they occur, including in the comments a statement that any DEQ analysis by a lead agency must fully account for the direct, indirect and cumulative impacts associated with proposal(s) for crude oil transport and export.

2. Submit a copy of this resolution to Governor Brown, whereby the City of Eugene requests that she

- a. Take executive action similar to New York Governor Cuomo's executive order directing state agencies to conduct a comprehensive review of safety procedures and emergency response preparedness related to shipments of volatile crude oil, and
- b. Order a cumulative impact analysis similar to the Washington Department of Ecology for coal mining, transport, and burning.

3. Address impacts to public health, public safety, property, air quality, and surface and groundwater caused by crude oil through Eugene by actively enforcing applicable local public health, public safety, building, electrical, nuisance, and fire codes and by actively enforcing applicable federal environmental statutes delegated to Eugene.

4. Submit a letter to rail carriers involved in the transport of crude oil through Eugene and the Willamette Valley requesting that these rail carriers:

- a. make public any plans for new or expanded rail facilities or significant rail traffic volume increases;
- b. provide representatives to meet periodically with local citizen groups and local government officials
- c. update UP's emergency response plan with the City of Eugene to account for the transport of crude oil and the potential emergencies that could occur with accidents involving these hazardous materials;
- d. conduct environmental monitoring in Eugene including but not limited to groundwater and air monitoring, and submit environmental monitoring or testing information to local government entities on a monthly basis for 10 years; and

5. Submit a copy of this resolution to the Oregon Public Utilities Commission (OPUC) whereby the City of Eugene seeks assurances that the OPUC railroad safety program is adequately implemented in Eugene and other areas that may receive crude by rail shipments, including investigation, inspection, infrastructure improvement, detection and mitigation risks or any other procedures or mechanisms available to the Oregon Public Utilities Commission; and

6. Send a copy of this resolution to the Oregon Department of Transportation, which is developing regulations for federal rail safety of shipment of fossil fuels by rail in DOT 111 rail cars; and

7. Alert and communicate with other cities along the transportation route Eugene's Resolution opposing crude oil by rail, and support their efforts to take similar action; and

8. Work through the Oregon League of Cities, Oregon Association of Counties, and other relevant organizations to explain Eugene's opposition to crude oil trains; and

9. Alert Eugene's state legislative representatives and our lobbyists in Salem to this Resolution opposing crude oil trains and enlist their help in addressing the many safety concerns raised herein; and

10. City of Eugene will lobby federal senators and representatives to enlist their help to engage the appropriate regulatory authorities at the federal level.

End: No Crude Oil by Rail Resolution