June 22, 2015

Executive Director and Secretary
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive S.W.
P.O. Box 47250
Olympia, WA 98504-7250

RE: Rulemaking to Consider Adoption of Rules Relating to Rail Safety (TR-151079)

Mr. King:

Thank you for the opportunity to comment on the Washington Utilities and Transportation Commission's ("UTC") rulemaking process on rail safety. The rapid influx of crude oil trains coming into Washington makes the issue of rail safety acutely real. Incidents across the United States and Canada demonstrate the level of threat and risk that we all are taking on with this rail traffic.

On behalf of Audubon Washington, Climate Solutions, Columbia Riverkeeper, Earthjustice, Earth Ministry, ForestEthics, FRIENDS of the San Juans, Grays Harbor Audubon, OneAmerica, Oregon Physicians for Social Responsibility, Puget Soundkeeper Alliance, Re Sources for Sustainable Communities, Seattle 350, Sierra Club, The Lands Council, Washington Environmental Council, and Washington Physicians for Social Responsiblity we urge the UTC to strengthen your authority on rail safety to reflect the new reality of crude oil trains.

We have seen 12 large crude oil derailments and resulting explosions and spills across the United States and Canada:

- Lac Megantic, Quebec, Canada – 47 people died in this derailment on 7/6/2013
- Gainsford, Alberta, Canada – community evacuated and fire on 10/19/2013
- Aliceville, Alabama, USA – spill into wetland complex on 11/8/2014
- Casselton, North Dakota, USA – community evacuated and explosion on 12/30/2013
- Plaster Rock, NB, Canada – multi-day fire, explosion, and spill on 1/7/2014
- Vandergrift, Pennsylvania, USA – derailment and spill on 2/13/2014
- Lynchburg, Virginia, USA – derailment and spill into James River on 4/30/2014
- Gogama, Ontario, Canada – six day fire and derailment on 2/14/2014
- Mount Carbon, West Virginia – explosion, community evacuation, spill into the Kanawha River and shut down of water supplies on 2/16/2015
- Galena, Illinois, USA – explosion and multi-day fire on 3/5/2015
- Heimdal, North Dakota, USA – community evacuation, fire and spill on 5/6/2015

The UTC is asking for public comments on three questions:

1) What is your definition of a reasonably likely worse-case spill of oil?
2) What is the reasonable per-barrel cleanup and damage cost of spilled oil?

3) What risk factors should the Commission consider in establishing safety standards at private crossings?

The answers to these questions are fundamentally qualitative and extremely variable depending on the type of accident, where the accident occurs, and the human life and environmental health impacted by the accident. That said, we can look to previous accidents to help us answer these questions. The following is a starting point in answering the questions to inform how the UTC will and can use its regulatory authority to protect Washingtonians from the risk of crude oil by rail:

1) What is your definition of a reasonably likely worse-case spill of oil?

Trains carrying upwards of 1,000,000 gallons, up to 3.5 million gallons, are traveling through Washington State. A likely worse case spill would be the entire 120 carload unit train carrying crude oil in an accident and spilling. As we saw in Lac-Megantic, where 1.6 million gallons of oil were spilled, this is not a theoretical risk.

The definition should include both explosion and spillage into communities and waterways. A reasonably likely situation is that an accident would occur in a place like the Columbia River Gorge, causing an explosion in the communities alongside the Gorge and a large spill of the full train into the River. Another reasonably likely situation is an accident occurring in the densely populated downtown Seattle area, with results ranging from loss of life to a spill into the Puget Sound to a shut down of the working port while clean up occurs. The definition should take into account the timing of the spill, including during salmon and bird migration, a community festival, and a natural hazard event such as a landslide or earthquake; the location of the spill, including a varying range of populated areas, fragile ecosystems such as the Eastern Washington sagebrush shrub-steppe, and vulnerable waterways; and the amount and type of oil spilled, including crude oil from the Bakken region and the Alberta Tar Sands region.

2) What is the reasonable per-barrel cleanup and damage cost of spilled oil?

When answering this question, we can look to the accidents that have occurred involving crude oil by rail (see the above list of large crude oil train derailments) and the official federal assessments through Pipeline and Hazardous Materials Safety Administration's (PHMSA) Final Regulatory Impact Analysis (FRIA). However, both of these sources are inadequate. In the Lac Megantic disaster, there are still lawsuits and cleanup costs being processed. We will not know the real cost of that accident until those are done. At this time, the City estimates that the accident contaminated 12.3 million gallons of sewer, lake, and ground water, that it will cost $2.7 billion to rebuild the village over the next decade, and that there may be additional $200 million in costs.[i] This doesn't take into account the cost to the town in terms of lost revenue and economic viability when such a disaster occurs.

The PHMSA's Final Regulatory Impact Analysis[ii], is another source for information yet even in their own documents have acknowledged the shortcomings of their analysis. For example, the cost of **$15,456 per barrel** based on per gallons figures cited on pages 85-87 of the FRIA report:

> PHMSA conducted a review of the literature on crude oil and ethanol spill costs, available data from Federal Agency databases on hazardous liquid spill costs, and reports from rail carriers on individual spills, which substantiates an estimate of $200. The review found that damages could be as high as twice that amount for crude oil spills, and substantiates a cost for ethanol spills at $144 per gallon... For 2011-2015 the cost per gallon for pipeline incidents (dividing total gallons spilled into total costs for all incidents over this time period) produced an estimated cost of $211 per gallon for crude oil incidents, and the estimate for the spill volume category that matches the average historical crude oil and ethanol derailment (50,000 – 99,999) is $368 per gallon.[iii]

While on pages 89-91, PHMSA admits that these are low:

> PHMSA noted that at a cost of $200 per gallon released, this implies that the average crude oil and ethanol mainline derailment results in $16.7 million in total costs (including property damages, cleanup, remediation, emergency response, socioeconomic and lasting environmental damages but excluding deaths and injuries.

Looking at the Lac Megantic example, it looks more like **$78,750 per barrel**, based on both page 25 from the FRIA which found that the Lac-Megantic accident released 1.6 million gallons of crude oil, this is an estimate the per-barrel cost and independent estimates suggest that total costs will be at least $3 billion, which would work out to $1,875 per gallon or $78,750 per barrel.[iv]

3) *What risk factors should the Commission consider in establishing safety standards at private crossings?*

Trains travel through the most populated cities in the State; through rural communities; next to wildlife refuges, national parks, and important natural resource areas; and alongside major waterways such as the Columbia River and the Puget Sound. The trains carrying crude oil use bridges that are above cities like Spokane and through tunnels below downtown Seattle. Given this diversity and expanse of travel through 93 Washington communities, the risk factors are numerous. These risks include:

- Number of trains
- Amount of train traffic
- Amount of oil train traffic specifically
- Number of crossings (private and public)
- Types of oil being transported and associated risk of that oil
- Speeds used by trains
- Protection measures at the rail crossings (private and public)
- History of derailment along the track and crossings (private and public)
- Maintenance at the crossing (private and public)
- History of crashes at crossings (private and public)
- Existing public health and socioeconomic disparities in proximate communities
- Location of crossing to waterbodies

- Location of crossing to community infrastructure like schools and health facilities
- Location of crossing to homes
- Access and route for emergency responders
- Private crossing and proximity to bridges
- Ambient air temperature and how that relates to product being moved
- Type of rail car being used
- Length of train and weight of train
- Types of brakes used on trains
- Number of train operators
- The topography, including tight curves, hills, and valleys, of tracks
- The types of tank cars being used to a haul crude oil
- Location of crossings near or within stretches of Wild and Scenic designated rivers and other similarly designated stretches of waterbodies
- Location of crossings in the National Scenic Area
- Crossings through/over public and/or private forest lands and associated risk of fire
- Proximity to tank farm(s) or tanks holding highly flammable content
- Location of crossing to drinking water intakes and to drinking water aquifers
- Presence (or lack thereof) of active control devises to close tracks from public access.

While Washington has a long history with rail traffic and the UTC with crossings, the introduction of crude oil trains changes the landscape of the risk and how the UTC should address these threats. We appreciate you taking time to receive public comments to inform how the UTC will regulate these crossings and their authority overall to protect Washingtonians from the threat of crude oil trains and train traffic in general. If you have any questions, please feel free to contact Rebecca Ponzio (rebecca@wecprotects.org or 206.631.2604).

Regards,

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[i] Sightline Institute: http://daily.sightline.org/2014/12/18/what-do-oil-train-explosions-cost/
[ii] May 6, 2015, http://www.regulations.gov/#!documentDetail;D=PHMSA-2012-0082-3442.
[iii] May 6, 2015, http://www.regulations.gov/#!documentDetail;D=PHMSA-2012-0082-3442.
[iv] Sightline Institute: http://daily.sightline.org/2014/12/18/what-do-oil-train-explosions-cost/