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July 25, 2014

SUBMITTED VIA EMAIL TO: smith.scott@deq.state.or.us

Scott A. Smith
811 SW 6th Ave.
Portland, Oregon 97201

Re: Comments on the Proposed Oil Spill Contingency Plan for Arc Terminals Holdings LLC's Portland crude oil terminal

Dear Mr. Smith:

The Northwest Environmental Defense Center ("NEDC") submits the following comments to the Oregon Department of Environmental Quality ("DEQ") regarding the oil spill contingency plan proposed by Arc Terminals Holdings LLC ("Arc") for its Portland crude oil terminal located at 5501 NW Front Ave., Portland, Oregon, along the banks of the Willamette River. NEDC is a nonprofit environmental organization dedicated to protecting and conserving the environment and natural resources of the Pacific Northwest. A spill or accident at Arc's Portland terminal would be devastating to the Willamette and Columbia Rivers, as well as the wildlife that depends on it, including endangered salmon populations. Arc's operations pose a threat to the ecology of the region, surrounding communities, and the businesses that depend on clean water in the Willamette and Columbia Rivers. Recognizing the irreparable harm that would result from an accident at this site, NEDC urges DEQ to impose stringent precautionary requirements in Arc's oil spill contingency plan that go above and beyond the federal and state minimum requirements for a Facility Response Plan ("FRP").

Background

Nationally, the rapid increase in crude oil shipments by rail has increased the risk of oil spills from rail transportation. *See* U.S. Congressional Research Service, John Frittelli *et al.*, *U.S. Rail Transportation of Crude Oil: Background and Issues for Congress*, R43390 (Feb. 2014) (attached hereto as Exhibit 1). The sharp increase in transporting crude oil by rail has come with a price. *See* New York State Department of Health, *Transporting Crude Oil in New York State: A Review of Incident Prevention and Response Capacity* (April 30, 2014), pages ix-x (listing Lac-Megantic, Quebec in July of 2013; Casselton, North Dakota in December of 2013; and the Mississippi River in

February of 2014) (attached as Exhibit 10). On April 30, 2014, a crude oil train derailed in Lynchburg, Virginia. Huffington Post, *Lynchburg, Virginia Train Derailment Sparks Fire, Fills Air With Plumes of Black Smoke* (attached as Exhibit 11). Crude oil spilled into the James River, which serves as Lynchburg's primary drinking water source. More recently and closer to home, three oil train cars derailed in downtown Seattle, Washington, beneath the Magnolia Bridge. Oregon Live, *Oil train derails in Seattle; no injuries or spill* (attached hereto as Exhibit 12); *see also* Reuters, Edward McAllister, *BNSF train carrying North Dakota oil derails in Seattle* (July 2014) (attached hereto as Exhibit 13).

Due to its volatility, Bakken crude poses a considerable threat of fire and explosion, which is a major threat to public health and safety. *See* Emerging Risks Task Force, *Emerging Risks Task Force Report – 2013*, available at http://www.rrt10nwac.com/Files/FactSheets/131217071 637.pdf (attached hereto as Exhibit 2), page 21. Such risks pose an immediate threat to the Columbia River and the wildlife that depends on it. Crude oil is among the most persistent and environmentally damaging type of oil and is very difficult to clean up. *See* Tom Fitzsimmons, *et al.*, *Oil Spills in Washington State: A Historical Analysis*, Washington Department of Ecology Pub. No. 97-252 (March 2007) (attached hereto as Exhibit 3). *See also* Exhibit 2, page 23 (explaining that due to its unique characteristics and relatively recent and dramatic increase in volumes shipped, Bakken crude presents new and unique challenges to oil spill preparation and the response community in the Northwest). The fact that highly volatile materials are being shipped in unit trains further exacerbates the risk of harm.

As a result, NEDC has real concerns about the adequacy of the measures outlined in Arc's proposed oil spill contingency plan. DEQ's notice of the proposed oil spill contingency plan states that the terminal receives Black Waxy crude oil or asphalt via railcar. Arc then transfers the oil into storage and ultimately onto tank ships and barges via pipeline using the neighboring dock in the Willamette River, owned by Chevron Willbridge Terminal. Arc also transfers or stores aviation gas, jet-A fuel, naphtha, and vacuum gas oil. The Portland terminal is capable of receiving, storing, and delivering heavy and refined petroleum products. *See* Arc Logistics, *Arc Logistics Partners LP Announces Entrance Into West Coast Terminalling Market* (Jan. 2014) (attached hereto as Exhibit 4). The site covers 39 acres and consists of 84 storage tanks capable of holding 1,466,000 barrels of petroleum products. *Id.* Each step in the process of transloading bears a risk of spill or accident. Plus, due to its operations, the terminal will increase rail and marine traffic: additional trains carrying dangerous crude oil will travel along the Columbia River Gorge, slice through North Portland, and then marine vessels will ship the crude oil out along the Columbia River to its destination.

Rather than focusing on whether Arc's oil spill contingency plan meets the bare minimums set forth by federal and state regulation, DEQ can and should require Arc to include additional precautions. Over the past year it has become clear that federal and state minimum standards fail to provide the necessary assurances to alleviate the dangers inherent in the transport of crude oil by rail. *See, e.g.*, Exhibit 1, page 17. As early as 2007, Washington's Department of Ecology recognized that "to prevent spills, an

organization may be expected to go beyond currently accepted industry practices." Exhibit 3, page 32. As demonstrated by the catastrophic oil leak on the Kalamazoo River in Michigan and lingering effects of the Exxon Valdez accident in Alaska, spill response measures simply serve to mitigate the harm. Thus the primary focus of any spill contingency plan should be on prevention instead of emergency response.

Discussion

Oregon's rules require regulated facilities to "submit and use oil spill prevention and emergency plans" "before operating in Oregon." OAR 340-141-0001(1), (2); OAR 340-141-0180; ORS 468B.345. The following sections highlight some of the major weaknesses in Arc's oil spill contingency plan that DEQ should require Arc to address before allowing it to begin transport operations at the facility.

I. The oil spill contingency plan fails to address critical factors necessary to ensure public safety and protection of the environment.

First, the plan should clearly require notification of all spills, regardless of their size. DEQ's rules require plans to include a strategy for "ensuring" the use of the plan for spill response and cleanup operations. *See* OAR 340-141-0140(6). The proposed plan refers to spills generally when discussing the FRP and evacuation notification measures, but it appears to leave the determination of when to trigger the FRP up to the discretion of the facility operator based on a case-by-case visual observation. *See* Arc Terminals Portland FRP, Section 4.9. Given that Arc itself recognizes that no two spills are alike, and the requirement for a strategy that ensures the use of the plan, each and every spill should trigger at least an initial notification requirement.

This is especially important because leaving a spill determination to the discretion of the facility operator opens the door to greater human error. A report completed by Washington's Department of Ecology found that human error was the root cause of the majority of spills in Washington around 2007, and therefore such spills could have been prevented. *See* Exhibit 3, pages 32-33, 39. For example, in 2007 Kinder Morgan spilled approximately 58,800 gallons of synthetic crude from the Westridge Transfer Line into storm sewer systems in Burnaby, British Columbia and ultimately into Burnaby Harbor. Exhibit 2, page 18. It took the pipeline operator five minutes to shut down the pipeline, contrary to Kinder Morgan's standard shutdown procedures. *Id.* Arc's contingency plan should therefore remove the discretion afforded the facility operator to make an initial assessment of spills and instead require immediate notification to state agencies regardless of the size of the spill. This baseline measure will reduce the opportunity for human error and meet DEQ's requirement to ensure the plan is used for spill response and cleanup operations.

Second, Arc's contingency plan fails to recognize or adequately address the risk of fire and explosion resulting from a spill. Bakken crude oil, a light sweet low viscosity crude oil, is highly flammable and easily ignites at normal temperatures by heat, static discharges, sparks or flames. Exhibit 2, page 14. Vapors may form explosive mixtures

with air, travel to the source of ignition and flash back, or spread along the ground and collect in confined areas such as sewers and tanks. *Id.* Burning sweet light crude may create carbon monoxide, hazardous sulfur dioxide and related oxides, nitrogen oxides and smoke particulates. *Id.* The potential for Bakken crude to ignite in fire or explosion is the single largest risk to responders and public health. *Id.* at 21.

Given the high volatility of Bakken crude, it is critical that Arc's oil spill contingency plan outline specific fire response measures. Exhibit 2, pages 22-23. Recent studies and improper practices in recent accidents support that certain response measures are more effective at addressing crude oil fires than others. *Id.* at 21. For example, response measures should concentrate on isolating the spill or leak area, and downwind evacuations. *Id.* Use of water spray when fighting these fires may be inefficient, and instead responders should use dry chemical, CO2, or regular foam for small fires, fog or regular foam for large fires, and allow containers to cool if the fire involves tanks. *Id.* at 22. DEQ should ensure that Arc's contingency plan addresses these specific measures.

Third, Arc's contingency plan should highlight the importance of increased safety and prevention measures at the material transfer locations. The risk of a spill is great at each point of transfer, because those locations involve the greatest potential for human error and require multiple variables to be in place for effective and safe transfer. At Arc's Portland terminal, there are at least three major points of transfer: (1) from railcar to storage tanks; (2) from storage tanks to the pipeline; (3) from pipeline onto the barge vessels. In addition to focusing on the transfer points, DEQ should require Arc to coordinate this contingency plan with the emergency plans kept by the railroads, which will be bringing the crude oil to the port. ORS (d) (requiring spill contingency plans to *See* Earthfix, Tony Schick, *How Industry Specs And A Federal Loophole Allow Railroads to Avoid Response Planning Oversight* (March 2014) (attached hereto as Exhibit 5). Rail transport is a necessary element of operations at Arc's crude oil terminal. Ignoring this condition precedent of operations, and the risk of spill it presents, ignores likely spill scenarios that should be backed by a coordinated and cohesive oil spill contingency response plan.

DEQ's defines "Facility" to mean "a pipeline or any structure, or group of structures, . . . that is used for producing, storing, handling, transferring, processing or transporting oil in bulk and that is capable of storing or transporting 10,000 or more gallons of oil per day." OAR 340-141-0005. Although this definition excludes railroad cars, DEQ's rules require a spill plan to "briefly describe its relation to all applicable local, state, regional and federal government spill response plans." OAR 341-141-0140(9). This requirement encompasses any spill response plans that the railroad companies maintain. Thus Arc's plan must address how it relates to the railroad companies' plans. Plus, an oil plan must "[c]onsider the nature and number of facilities and marine terminals in a geographic area." ORS 468B.350(2)(c). DEQ must ensure that Arc's plan addresses facilities and marine terminals, including the Cascade Kelly dba Global Partners crude oil facility at Port Westward, in its plan.

Finally, it is unclear what additional measures Arc has in place to identify spills

occurring at night. *See* OAR 341-141-0140(10) (requiring plans to "list procedures that will be used to detect and document the presence and size of a spill, including methods which are effective during low visibility conditions"). Spills at night are a particular threat in that they can go unnoticed and it may be difficult to assess the extent of the spill. For example, the Enbridge Pipeline spill into the Kalamazoo River system happened at night and initial responders were not aware of the severity of the spill or the type of oil spilled. Exhibit 2, pages 16-17. DEQ should require Arc to include additional safety measures to prevent spills at night and to identify the extent of such spills.

II. DEQ should require Arc to commit funding for local emergency responders.

Access to resources, including equipment, training and education, is an essential element of the spill response portion of an adequate contingency plan. OAR 340-141-0140(25) (requiring plans to "describe procedures to protect the health and safety of oil spill response workers," including "[p]rovisions for training."). One of the main inadequacies of emergency response efforts identified for recent oil spills was the lack of or limited amount of resources available. *See* Exhibit 2, pages 16-21. For example, first responders to the Kalamazoo River oil spill in Michigan in 2010 did not have the resources to contain or control the flow of oil into surrounding bodies of water; lack of training on spill procedures contributed to the amount of oil spilled into Burnaby Harbor in 2007; and the limited amount of response equipment in close proximity to the spill magnified the environmental destruction resulting from the 2005 oil railcar derailment adjacent to Lake Wabamun in Canada. *Id.* Arc's proposed contingency plan does not include the requisite commitments from Arc to provide the resources necessary for local emergency responders to quickly and appropriately respond to an accident at the Portland terminal.

Arc should be responsible for providing necessary resources to local and state emergency responders. Arc's contingency plan expressly contemplates relying on local emergency responders for "emergency operations." Arc Terminals Portland FRP, Section 5.4. Yet the volume of petroleum products anticipated to pass through Arc's Portland terminal is larger than any other facility in this region. As noted above, fires involving crude require special foam. That foam is expensive. Rob Davis, *For oil trains crossing Oregon, Washington, state oversight gaps raise questions in wake of accidents*, The Oregonian (Jan. 2014) (attached hereto as Exhibit 6). There is no reason for Oregon's fire districts to have large amounts of this type of material on hand.

It is truly incredible that Arc expects local firefighters and emergency responders in the region to obtain the specialized training and equipment necessary to respond to hazardous substance spills on taxpayer dollars. DEQ is cutting back on oil spill training for employees, even though Arc plans for the Portland terminal to be the largest crude oil transloading facility in the region, and has chosen a location directly adjacent to the Willamette River with shipping routes along Oregon's its iconic Columbia River. Earthfix, Tony Schick, *Crude Oil Terminal Planned in NW Portland* (Feb. 2014) (attached hereto as Exhibit 7). Understanding the state and local governments have limited resources, Arc should bear the costs for local emergency responders and state

agencies to obtain training and equipment to respond to the threats created by Arc's activities. This is not an appropriate cost for Oregon's taxpayers.

Requiring up front funding from Arc for precautionary measures is reasonable, given the likely costs of clean up. In Michigan, the Kalamazoo spill cost Enbridge more than $1 billion and the company is still working on cleanup three years later. Max Paris, *Enbridge's Kalamazoo cleanup dredges up 3-year-old oil spill*, CBS News: Politics (Sept. 2013) (attached hereto as Exhibit 8). Federal agencies spent almost $60 million on the cleanup efforts, a cost born by taxpayers. U.S. Environmental Protection Agency, Region V, *Pollution/Situation Report #198*, Feb. 2014 (attached hereto as Exhibit 9). In British Columbia, it cost $15 million to recover 1,321 barrels of the 1,400 barrels of synthetic crude that Kinder Morgan's pipeline spilled into Burnaby Harbor. *See* Exhibit 2, page 18. Arc should provide funding for any specialized training and additional resources required by local emergency responders to react to a spill at the Portland terminal. Requiring such up-front costs is reasonable because it will reduce the amount required to be spent in response to an accident.

Conclusion

In reviewing Arc's contingency plan, DEQ is faced with ensuring that Arc provides sufficient measures to safeguard Oregon's environment and communities. Simply requiring the minimum standards set forth in outdated federal and state regulations will not be enough to achieve that standard. Further, Arc has a history of ignoring environmental regulations. *See* Exhibit 7 (highlighting federal data showing Arc was determined to be out of compliance with federal regulations at one third of its 17 facilities in the past 3 years). Ignoring this history grants Arc a benefit of the doubt that is illogical and unnecessary when considering the dangerous materials involved and Oregon's resources at stake. DEQ can and should require more stringent measures in Arc's oil spill contingency plan. A single accident at a facility of this size and nature would be catastrophic to the region. Ignoring the dangers at this stage is not worth that risk.

Sincerely,

Marla Nelson
Legal Fellow