Barry Wenger

Dear Ms Larson: I regret missing the Sept 17th Everett hearing due to illness however I have a number of questions and comments that I'd like to have addressed. To summarize:

1) Group 5 oils (G5) are unique materials that behave very differently than those of Groups 2-4 (and Group 1, of course). As an example, G5 oil such as Alberta tar-sands materials are exceptionally heavy and viscous which in some instances requires solvents to be added to thin them enough to pump in pipelines or into vessels including barges. In fact, Alberta's tar-sands materials are known to be the heaviest on earth averaging 60% asphaltene in-situ compared to 2-4 % for historical Alaskan crude. Think of barely soft asphalt which requires heat and up to an addition of 30% by volume of solvents (toluene, benzene, etc) coming from natural gas production by-products to extract and make it capable of pumping. No significant processing is done prior to transporting via pipeline of vessel. This results in the worst case scenario for spill response - the heavy toxic fractions sink while the flammable solvents volatize at the surface making it dangerous and impossible to boom or clean up. So, here are a few preliminary questions:

a. With a mixed material of solvents/sinking toxic constituents, how long under best/worst scenarios do the volatized solvents take to be considered safe for the clean-up crews to be able to work on-site and what is the concurrent best/worst scenarios for the sinking heavy constituents?

b. What is the fate of the heavy sinking constituents i.e. how much, predicted areal extent, and chemical composition of what ends up on the bottom versus for the less dense sinking component that binds to particles and forms a submerged mobile mass? Where and when has the fate of such material been documented in-situ? What are the related environmental impacts?

c. How are the spill components in a & b above captured and cleaned up, to what extent can they be cleaned up, and when and where has these activities been documented in-situ? What are the related environmental impacts?

d. What are the techniques employed in c above and what is the ultimate disposal of such materials?

e. Given that usual Alaskan crude leaches toxic components for, on average 35 years, after a spill (e.g.Exxon Valdez) especially in the tidal areas, and that tar-sands materials are known to leach toxic constituents for 90-150 years, how has this characteristic been taken into account in long-term impacts and how will it be mitigated?

f) Barges of tar-sands materials are currently being transported from Vancouver BC to Tacoma, Wa - how are these being monitored, regulated and what is the clean-up protocol in place?