

To the Portland Planning and Sustainability Commission,
Re: Proposed Changes to the Environmental Overlay Zone for the Pembina Liquid Propane Project.

Commissioners,

The proponents of the proposed Pembina LPG project are not being entirely truthful when they claim that the worst case scenario is where one tank car catches fire at the facility. As with oil trains a worst case scenario necessarily involves a multiple car derailment and a cascade fire including boiling liquid vapor cloud explosions.

Unlike oil tank cars, propane in rail tank cars is under 1-200 pounds of pressure depending on temperature. In the event of a fire that pressure rapidly increases beyond the capability of the safety valve and exceeds the tensile strength of the steel of the tank. Not included in their application is any assessment that includes the probability that there will inevitably be a multiple pressurized LPG car derailment at some point where there will likely be multiple cars exploding. As such their application is incomplete and dangerously ignores the risks inherent to the transportation and handling of LPG.

LPG or LNG tanker ships transiting the Columbia river represents a unique risk to all the communities downstream from the proposed terminal. None of the communities at risk have the capability of

dealing with a ship fire and especially an LPG tanker ship fire.

Large LPG tankers represent a greater hazard because propane is heavier than air, it will spread out, keeping low to the ground and water, and when it finds a point of ignition it explodes. The scale of the explosion is proportional to the size of the spill. In the event of a failure of the cargo hull it could be massive enough to threaten the total destruction of entire communities. Independent of the probability of such an event based on the historical frequency the magnitude of such consequences ought to have bearing on the decision.

We prohibit fuel tanker trucks from transiting the Vista Ridge Tunnels because it is too dangerous. Tanker trucks simply have to find another way as I am sure that Pembina can as well.

Another concern I have is that there has been a pattern of disingenuousness in corporate culture. In Oregon, energy interests misrepresented their intention to export American natural gas. They portrayed and applied for permits for several LNG export schemes as "import terminals". Perhaps it was to gain consideration for the use of eminent domain, perhaps it was to avoid the consideration of the effects upon the US gas markets but when they applied for air permits they asked for the right to emit sulfur oxides. The only source of that sulfur is from trace amounts of hydrogen sulfide in pipeline gas at the liquefaction end, there is none in LNG. The only way they could be asking to emit sulfur oxides would be if they knew, a priori, that they were in fact export terminals. Only when the state said that the permits obtained for an import terminal were not valid for an export terminal did the LNG companies change their stories and admit that their true intent was the export of LNG. My fear is that with nearby natural gas pipelines, a liquefaction facility, insulated storage tanks and a ship loading dock we have the technical potential for an LNG export facility and being clandestinely authorized 'under the radar'. People thought and claimed that it was impossible for an LNG import terminal to export LNG but in retrospect it must be concluded that that was their covert intention from the outset. Care needs to be taken in examining the capability of the alloys in the handling pipes, the power of the liquefaction plant, the insulation of the storage tanks, and the particulars of their air impact statement with OR DEQ.

The proposed Pembina project purports to market propane that is a by product of hydro-fracking. Hydro-fracking injects many toxic chemicals into the ground where they inevitably work their way into

the ground water causing extensive long term environmental damage.

The amount of energy involved in hydro-fracked gas, the depletion rate of the wells and the problem of fugitive gas emissions from the process of hydro-fracking makes the carbon intensity of all gas derived from such processes worse than that of coal and up to twice the carbon content of the propane itself. Considering the source and methods of production allowing this project would not be in keeping with our municipal, county, and state commitments to reduce carbon emissions.

Until all these issues are unequivocally answered your duty in office clearly falls on the side of denying this plan's permits and changes to the overlay zone.

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