

Community Concerns – Pembina QRA

- Huge discrepancy between Pembina QRA and risk information presented in NWCSI white paper utilizing the ALOHA Model. Why?
- Pembina QRA focused exclusively on number of expected deaths. No information was provided regarding expected injuries, environmental or property damage. What is the expected risk of bodily injury requiring medical attention?
- Pembina QRA based on data from off-shore oil facilities. What does our U.S. propane facility data show?
- Pembina QRA used risk tolerance curves from UK. What is our risk tolerance here?



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- ▶ Pembina QRA does not incorporate findings from previous QRAs for similar facilities. Information from other cities used to determine suitability of similar projects is valuable, relevant, and available.
 - ▶ Port of Longview passed on proposed propane export terminal - March 10, 2015 Why? What can we learn from their experience and data?
- ▶ Pembina QRA focused exclusively on the proposed facility and did not include risk information for transportation of their propane to the facility by rail or from the facility by ship.

This is critical information and cannot be considered separately from the project!

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- ▶ Rail transportation of propane is poorly regulated by the Federal Railroad Association, State & local agencies.
- ▶ Rise in recent rail incidents involving volatile substances:
 - ▶ 2/4/15 – 14 ethanol tank cars jump tracks in Iowa and 3 burn
 - ▶ 2/16/15 – 28 crude oil tank cars de-rail and catch fire in West Virginia
 - ▶ 3/5/15 – 21 crude oil tank cars de-rail and leak oil in rural Mississippi
- ▶ The increase in rail transport of oil & gas across Oregon increases overall risk.
 - ▶ It seems unwise to transport large quantities of this highly hazardous, odorless, colorless, heavier than air, extremely flammable, pressurized gas into dense urban areas for export to foreign interests. **The risk is too high!**

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- ▶ QRA for Ships? Coast Guard?
- ▶ Carbon footprint of entire process from extraction to use?
- ▶ Proposal includes significant site mitigation measures for ensuring stability of tanks during anticipated earthquakes?
- ▶ Propane facilities like this are covered under DHS Chemical Facility Anti-Terrorism Standard (CFATs) has DHS reviewed and approved this facility? What is terrorist risk?
- ▶ And, and, and.....