PIPELINE SAFETY

These pages are to assist you in navigating the chapters that deal with Pipeline Safety. You can view the complete text at energizeeastsideeis.org. *Suggestion: go to Individual Phase 2 Draft EIS Files and click on the Chapter and specific Section you are interested in.*

Chapter 3.9 Long-term Impacts and Potential Mitigation

p 3.9-5 "Alternate plans for aboveground clearance can be developed on a case-by-case basis where access is more limited (Olympic, 2016).

Q What is the smallest distance allowable?

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p 3.9-6 "The Partner Cities generally do not directly regulate pipeline safety, but they have the authority to regulate land uses near pipelines within their jurisdictions to protect public health and safety."

Q What are cities doing to regulate land use.Can they state transmission lines are an essential public facility without questioning need in any detail.

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p 3.9-7 "In the event of a leak or other emergency, the company is required to investigate and report on the incident, and is responsible for all costs relating to the spill response effort. "

Q Who is responsible to costs related to resident's property damage?

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p 3.9-9 "The last in-line inspections of the 16-inch and 20-inch pipelines were in April 2014, and the next planned in-line inspections are in early 2019 (West, pers. comm., 2016)."

Q Why not have an inspection prior to and after new poles and wires are installed to detect any differences in pipeline integrity?

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p 3.9-10-16 Unique (sensitive sites within study area)

Q Good opportunity to speak to the wisdom of risking public safety for transmission lines with questionable ability to improve electrical reliability.

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p 3.9-16 "If excavation has the potential to be within 10 feet of the pipeline, the Damage Prevention Team would be on-site to monitor excavation."

Q What are the qualifications to be an on-site inspector. What mitigation of a "rupture" can happen immediately?

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p 3.9-17

"Olympic's Facility Response Plan provides guidelines to prepare for and respond to a spill from the Olympic Pipeline system. The Facility Response Plan, which received final 5-year approval by Ecology in 2016, serves as Olympic's oil spill contingency plan under WAC 173-182."

p 3.9-6 indicates "WAC 173-182 On October 12, 2016, Ecology amended the Oil Spill Contingency Plan rule to update standards to ensure that required oil spill response equipment is appropriate for the pipeline risks and operating environments (both marine and inland). The amendments enhance oil spill contingency plan requirements for hazardous liquids pipelines, and for primary response contractors that support the implementation of pipeline plans. This amendment requires pipeline operators to update their contingency plans (e.g., facility response plans) in accordance with the applicable area plan, and submit them to Ecology for approval. The Northwest Area Contingency Plan is the applicable area plan for Washington State.

Q *Called Dept of Ecology and OPL's updated plan is due November 2017. How will the public find out if it has met this deadline and has adequately prepared to meet required updates*

The Olympic Pipeline federally mandated Integrity Management Program (put in place after the Bellingham and Carlsbad, New Mexico explosions) require in-line inspections, but only every 5 years. The last inspection was April 2014, and the next in-line inspection is not due until April 2019. This is a year after the projected

completion of the construction of the transmission line. Even with strict construction safety guidelines and rules, construction is still a human activity, subject to operator error, etc. Is this frequency enough to prevent accidents in our densely populated area?

The regulatory system that we rely on to keep us safe is not a speedy one at the best of times. The conditions that led to the Office of Pipeline Safety issuing a notice of probable violation and Final Order for correction to Olympic Pipeline company were discovered in August of 2014. The Final Order to correct the condition was not issued until January of 2016, and the work does not have to be completed until June of 2017. According to the Office of Pipeline Safety, the case is still open. It doesn't appear that OP has worked more quickly than the required deadline to correct these potentially hazardous conditions. And the EIS now expects us to trust that OP will work diligently, quickly and completely with PSE to identify and implement new mitigations for increased electrical interference, in the absence of any ability by PSE to require cooperation.

Page 3.9-16 Pipeline Leak Detection System and Controls. "Leak detection systems must be able to detect 8% of maximum flow leak within 15 minutes." We are not provided with information about how much jet fuel in absolute terms that would be, or the extent of the potential risk to human life and property might occur if a leak just smaller than the leak detection system can detect should occur. And we have no information about shut off systems, how they work, what the actual maximum leak might be. This is unacceptable.

Page 3.9-18 Hazardous Liquid Pipeline Failures. 2,362 incidents were reported in 5 years, over many miles of pipeline. The problem with this type of statistical analysis is that unpopulated miles vs. densely populated miles are not distinguished in any way. The risk may be very low for any particular mile of pipeline, but we should not be casual about rolling the dice in considering the consequences of a failure in a densely populated area like Renton, Newcastle, Bellevue and Redmond. The absolute risk may be low but the potential consequences so high that this increased risk is not acceptable to our community.

Page 3.9-19

What would be the potential consequence of an "average" spill of 12,900 gallons igniting outside Tyee Middle School for example? This is the way we need to think about risk in an urban area, not comforting abstractions like deaths per 1000 mile years.

Page 3.9-21

Can Olympic Pipeline company be relied upon to carry out all required inspections and repairs on time and in full. **Table 3.9-4** raises serious questions in that regard.

Table 3.9-4 indicates that

1. required procedures were not provided,
2. required inspections related to corrosion, a known risk with proximity to electric transmission lines, were conducted 9 months late,
3. Defective test sites were found, and no indication that the defects were repaired
4. And another corrosion inspection issue, with no indication that the inspections were conducted, and are now being conducted within the required time frames.

Page 3.9-29 The diagram showing a small yellow circle representing the center of a pool fire tidily enclosed within the borders of the right of way seems to indicate that outside the green band, consequences would be minor. The following page, 3.9-30, says that the green band has only 1% mortality after 30 second exposure. What happens after 30 seconds? The fire does not go out. This diagram is very misleading. A more useful diagram would have a circle that shows the border of 570°F temperature, the auto-ignition point of wood, to

show people how wide the area where their 2 x 4 construction, shake roofed homes and surrounding vegetation will combust. We can assume that gasoline in automobiles parked on the street will have already caught fire at 495°F. The diagram also does not indicate the variable slopes in the landscape, which would cause the fire to pour in the downhill direction.

Page 3.9-45 Extreme Weather Events and Seismic Hazards. The EIS states, "If the overhead transmission lines were damaged during an extreme weather event or natural disaster, there could be risks to public safety if the poles fall and damage the buried pipelines." A vague assurance that safety measures will be included in the final design are inadequate.

3.9-46 Load comparisons between seismic events and extreme weather conditions may be able to ensure structural designs withstanding these conditions, but there is absolutely no analysis or even any mention of the potential consequences of a simultaneous pipeline rupture and downed transmission wires in the event of an earthquake. The project crosses the Seattle Fault. This omission is unacceptable.

Page 3.9-46 The vague assurances of additional engineering analysis and mitigation measures to reduce risk from arcing in areas where pipelines are within 13 feet of transmission line pole grounds are unacceptable. Even the consultants report does not provide any concrete details. More detail is required.

P 3.9-30-51 Your time would be better spent going for a walk than reading this section. The risk study in this section and the more detailed report in Appendix "I" are a brave attempt to try to find some kind of data to manipulate to show the low probability of a fatal pipeline explosion. Since there is NO data regarding colocated pipes and poles, there is no data about third party accidents. If you are a data geek who might appreciate the attempt made to come up with multiple pages of text and graphs out of practically thin air.

Only common-sense observations about the long term impacts of a spill, leak or rupture accompanied by the same mantra that all will be fine because we have such good regulations on the books

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P3-9.52 Mitigation

Finally mentioned that some mitigation measures such as those suggested by DNV-GL to mitigate corrosion would be implemented where applicable to design of pole locations, layout and configuration. **Other mitigation measures** "necessarily" would need to be implemented after the project is energized or during peak winter load conditions.

Q WHAT kind of other mitigation measures?

P3.9-53 PSE Responsibility requirements

Worth reading. The National Energy Safety code (NESC) contains basic provisions necessary for worker and public safety under specific conditions, including electrical grounding, protection from lightning strikes, extreme weather, and seismic hazards. PSE would use these in developing final design. **The final design of the project has not been completed; therefore, the exact specifications and standards that would be incorporated into the project have not been identified.**

Q How can the EIS study the mitigations of the project when the project planning is NOT complete. Do we have to wait until PSE applies for a permit to get the specific details of this project. Is PSE using the design-build approach for this transmission line?

P3.9-54-56 Potential Mitigation measures based on stage of project when applied

Interesting reading. But it appears to be a grocery-list of mitigations when we were expecting exactitude.

Chapter 4.9 Risks during construction

p 4.9-1 Measurement of risk is Mile years = # of accidents /length of line/over a given amount of time

1 incident/1000 mile years = 1 incident on 1000 miles of line during 1 year.

The conclusions of risk:

The annual individual risk of fatality during construction of the 230 kV lines within the corridor is 1 in 4.6 million (Figure 4.9-3). In other words, it is estimated that there could be a 1 in 4.6 million likelihood that an individual at a specific location would be fatally injured over a 1-year construction period.

In this case, there is an estimated 1 in 58 million chance that an individual fatality would occur during a one year construction period that would not have occurred if the project was not built. In other words, the

assessment estimates that there would be an approximately 8 percent increase in individual risk during operation of Alternative 1. Because the risk level is already very low, this 8 percent increase is not considered substantial.

Q ????? Story problem: Calculate the risk of being on the one spot where the pipeline ruptures while being struck by lightening.

P 4.9-5 Potential construction damage

Interesting reading about digging, vibration, overloading above the pipeline + how all the mitigation activities will make pipeline damage unlikely.

Q Good info in theory, but we have no idea where poles will be located, what style, how deep they will be planted, if they will have a concrete foundation, what equipment will be used and where and how the equipment will access the pipeline area etc. Again example of the EIS lacking specificity. This section has the potential for lots of specific questions.

P 4.9-7 Regulatory Requirement

How PSE and Olympic will coordinate before excavation etc. Rehash of the first doc fromBP in Appendix I - see questions in Appendix "I" below.

Appendix "I"-2 BP Pipelines Construction Requirements

p I-3 "Each project in close proximity to pipeline is of great concern to BP due to potential impact to the operation and integrity of BP's pipelines. To avoid costly and lengthy delays, plans should be submitted to BP during the early planning stages of the project:

Q Have plans for EE been given to OPL for review? Which route plans were sent to OPL?

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p I-4 "No excavation or backfilling within the pipeline RoW without BP rep on site giving permission"

Q What criteria must be met to get permission to excavate or backfill?

P I-4 cont. "*Sometimes pipeline operating pressure has to be reduced"*

Q Will any construction activities require there to be pressure reduction in the pipeline?

" *contractor not permitted to transport construction material or equipment longitudinally over pipeline.*

Q How close to the pipeline can you operate equipment longitudinally over pipeline?

" *contractor shall submit plan indicating where equipment will cross the pipeline*

Q when and how will residents be notified about equipment crossing on their easement?

Appendix "I"-3 Olympic Data Request and Responses for risk assessment

Interesting reading - to see what information is considered a security risk. The responses to many of these questions were included in the main part of the EIS. You might find some questions to ask here. Ie,

Q what other kinds of pipeline coating are used besides coal tar enamel?

Members of the Olympics Damage Prevention Team are located nearby at all times and are able to respond to certain types of events as quickly as traffic permits.

Q Quantify "nearby." What are examples of "certain types of events" ? Oh, the traffic, not encouraging.

Olympic has contracted with National Response Corporation - Environmental Services to respond anywhere along its pipeline system within 2 hours.

Q what is the greatest quantity of oil that can be release in 2 hours at a location near where YOU live?
