

Phase 2 Draft EIS Analysis:

Pipeline Safety - Construction Impacts

Pipeline Safety during construction is a major issue for Energize Eastside. The transmission line will run along the Olympic Pipeline for most of its 18 miles. The pipeline carries approximately 10 million gallons of jet fuel and other petroleum products per day from refineries in the north to SeaTac airport and on to Oregon.

The 230kV transmission line poles are much larger and require a much larger foundation than the existing 120 kV wooden poles. Since most of the transmission line path is in residential and business zones, there will be compromises made in pole location and construction activity to maximize distance from structures and public areas. This will put pressure on engineers to minimize clearance between power poles and the pipeline in many places. This means a lot of drilling, digging, and heavy equipment close to the pipeline.

Pipeline safety is covered in the following sections of the Phase 2 Draft EIS:

- During construction: Chapter 4, section 4.9 (Environmental Health – Pipeline Safety).
- After construction: Chapter 3, section 3.9 (Environmental Health – Pipeline Safety).
 - 3.9.5.1: Risk assessment Methodology
- Construction method details, equipment used, and sequencing for the Energize Eastside project is included in Appendix A, as well as in the Phase 1 Draft EIS (Section 2.3.5, Construction Summary; Section 2.3.2.2.3, Construction).

Section 4.9 (short-term effects section) analyzes the risk of damage to the Olympic Pipeline during construction and concludes that the risk is low:

4.9.3 -> Alternative 1 Impacts Conclusions:

Based on the results of the risk assessment, there could be an increased risk of a pipeline release and fire during construction when compared with the No Action Alternative (see Section 4.9.1.2). Based on the results, and in consideration of project safeguards, the probability of a pipeline release and fire remains low under Alternative 1. However, the potential environmental health and safety impacts are significant if this unlikely event were to occur.

This conclusion is the result of an estimation method based on historical rates of "release or fire" of the entire pipeline system, much of which is in rural areas, and not co-located with a 230 kV transmission line. In fact, section 3.9.5.1 states: "...the available data sources on release incidents do not distinguish between co-located and non-co-located pipelines."

Energize Eastside's 18 mile stretch of Pipeline + Transmission line passes through or very close to:

- schools
- parks
- churches
- shopping areas
- neighborhoods

It also traverses slopes above these places. If there were to be a failure of the pipeline and a major spill occurred, there could be a cascade of fuel down the slope which would almost certainly catch fire. This would burn a large swath of neighborhoods and/or public places.

Delayed Catastrophe

A major concern is damage caused during construction but the effects are not seen until after construction. Many disastrous pipeline accidents are caused by damage that was caused during construction but the failure did not occur for months or years later. As the EIS states, crews will be vigilant and responsive to accidents during construction. However months or years after construction, monitoring and response times will likely become lax.

Construction Intensity

The risk estimation in the EIS estimates "release or fire" incident risk based on historical accidents caused by construction activity. However it is not clear that these numbers were adjusted to reflect the extent, intensity, and duration of construction of the Energize Eastside project. The following activities will be ongoing for one to two years along the entire 18 mile length of the project:

- Drilling and excavation for pole bases
- Pole installation
- Wire stringing

This activity will be of higher intensity and longer duration than "normal" construction activities. It will involve drilling and excavation as close as 24 inches from the pipeline (see ref), and heavy equipment passing over the pipeline.

Ref: 3.9.1.1 > Pipeline Offsets

Requirements for minimum offsets (or clearance) between any underground structures and hazardous liquid pipelines are 12 inches (49 CFR 195.250). Olympic Pipe Line's practice is to require a minimum of 24 inches of clearance between underground structures and the pipeline

Conclusion

The EIS must account for the above risk factors, and increased potential devastation due to the location of the project through neighborhoods and public places.

References

City of Kent's Hazardous Materials Emergency Response Plan

- <https://www.kentwa.gov/content.aspx?id=9466>
 - which contains this link:
the City of Kent Comprehensive Emergency Management Plan (CEMP)
<https://www.kentwa.gov/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=3924>
- The Pipeline-specific section is also available here:
<https://www.kentwa.gov/WorkArea/DownloadAsset.aspx?id=8096>

Excerpt:

August 2004: HAZARDOUS LIQUID PIPELINE

Definition of Hazard: The Olympic Pipe Line Company consists of over 400 miles of pipelines extending from refineries in northwest Washington to Portland Oregon. These pipelines carry refined liquid petroleum products: diesel, aviation fuel, (basically a form of kerosene) and gasoline. Underground high pressure pipelines remove the equivalent of 1,800 tanker trucks from the regions roadways each day and carry 441,000 barrels or 18,700,000 gallons of fuel each day.

Additional Olympic Pipeline info is available on the website of the State of Washington Energy Facility Site Evaluation Council: www.efsec.wa.gov/oplarchive/proj-sum.pdf

Excerpt:

May 1998: OLYMPIC PIPE LINE COMPANY

For 30 years, OPL has operated 400 miles of underground petroleum product pipelines in western Washington that were constructed prior to the creation of EFSEC. This existing pipeline system begins at the four oil refineries in Skagit and Whatcom Counties, transports refined petroleum products south to Seattle, then continues to Portland, Oregon. The OPL system consists of two parallel lines, a 16-inch and a 20-inch, starting near the refineries and running south to Renton. After delivering fuel to Seattle and Sea-Tac International Airport, the two lines combine into one 14-inch line that proceeds south to Portland. Virtually all of the gasoline, diesel, and jet fuel consumed in western Washington is transported by OPL. Today, OPL transports over 4 billion gallons a year of refined fuels through its western Washington system.