



Portland General Electric
121 SW Salmon Street • Portland, OR 97204
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May 30, 2024

Killian Stoltenburg
Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, Oregon 9723

Dear Killian;

This letter and the attached report ("Seismic Evaluation", Jacobs Engineering, 2021, or the "Report") serve as Portland General Electric's (PGE) submission of a Seismic Vulnerability Assessment (Assessment), as described in OAR 340-300-0003 (5), for PGE's Beaver Generating Plant (Facility) in Clatskanie, Oregon.

Executive Summary

The Facility was originally designed to operate using #2 diesel which was stored in an adjacent tank farm (see Figure 1). PGE proactively completed a seismic hazard assessment of the Facility in 2021 to evaluate risks due to potential seismic events. As summarized in the attached Seismic Evaluation Report (Jacobs, 2021), the tank farm is located on soils highly susceptible to liquefaction (see page 6, item 4 of the Report).

The Facility has largely transitioned away from use of diesel fuel for generating electricity and now mainly uses natural gas. Under a Mutual Agreement and Order (Order) with the Oregon Department of Environmental Quality (ODEQ), PGE is currently upgrading the Facility's turbine fuel burners, which will convert them to natural gas only usage. This project will be complete in 2026 at which time no diesel fuel can be used by the Facility to generate electricity.

Five of the eight tanks in the tank farm have already been decommissioned. Under the Order, the Facility can no longer burn oil after March 31, 2026.

Description of Facility

The Beaver Generating Plant (Facility) was built in 1974. It produces approximately 500MW of electricity using six (6) individual dual-fuel (natural gas, with ultra-low-sulfur diesel as backup) turbines. Originally, the plant primarily used #2 diesel fuel but has converted almost exclusively to natural gas.

The tank farm was originally constructed to provide fuel for the Facility, but as discussed above, operational changes have reduced the demand for fuel oil storage and currently the tank farm operates only to maintain a strategic fuel oil reserve. There are eight (8) above ground steel tanks in the tank farm with a total shell capacity of approximately 63 million gallons. Three of the storage



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tanks (Tanks 1, 4, and 8) are currently in service (see Figure 1). The remaining five tanks are empty and out of service (their capacity is eliminated; these tanks have been cleaned and connections cut). Most piping is above ground, and most piping is believed to be or will be generally empty. Additional oil handling equipment at the Facility includes a single truck loading rack, a rail car unloading area (inactive and capped), and a pipeline from the tank farm to the dock (pipeline is empty, cut and capped). PGE has plans to decommission the remaining tanks and equipment as diesel fuel cannot be used for generating electricity starting after March 31, 2026.

Current Fuel Usage and Storage

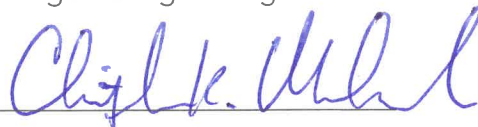
The Facility primarily uses natural gas to produce electricity. There is declining capacity to use diesel fuel (with decreasing milestones until March 31, 2026 when diesel use must cease). Currently, PGE has approximately 2 million gallons of ultra-low sulfur #2 diesel stored onsite, in Tanks 1, 4 and 8. The remaining storage tanks (tanks 2, 3, 5, 6 and 7) have been permanently closed as defined under 40 CFR section 112.2. Under the Order, PGE is prohibited from accepting additional diesel fuel for storage and use at the Facility. PGE anticipates potential usage of some of the remaining fuel, however, use of diesel fuel for energy production is prohibited after March 31, 2026.

Next Steps

With the submission of this Seismic Vulnerability Assessment, PGE is developing a strategy to remove, or use the currently stored volume of fuel after diesel use ceases. PGE intends to remove all stored fuel and permanently close the remaining active tanks per SPCC definition.

Submitted by:

Christopher K. Makuakane, PE
 Civil/Structural Engineering Manager

Signature: 

Date: 5/30/2024



EXPIRES: 12/31/2024

Enclosure: "Seismic Evaluation", Jacobs Engineering, 2021. Contained within the report;

1. A summary evaluation, including references;
2. Details of previous field exploration and boring data (Cornforth Consultants, Inc);
3. An associated seismic velocity survey (NW Geophysical Associates, Inc);
4. Mapped seismic hazards established by DOGAMI;
5. A liquefaction triggering analysis (Jacobs)

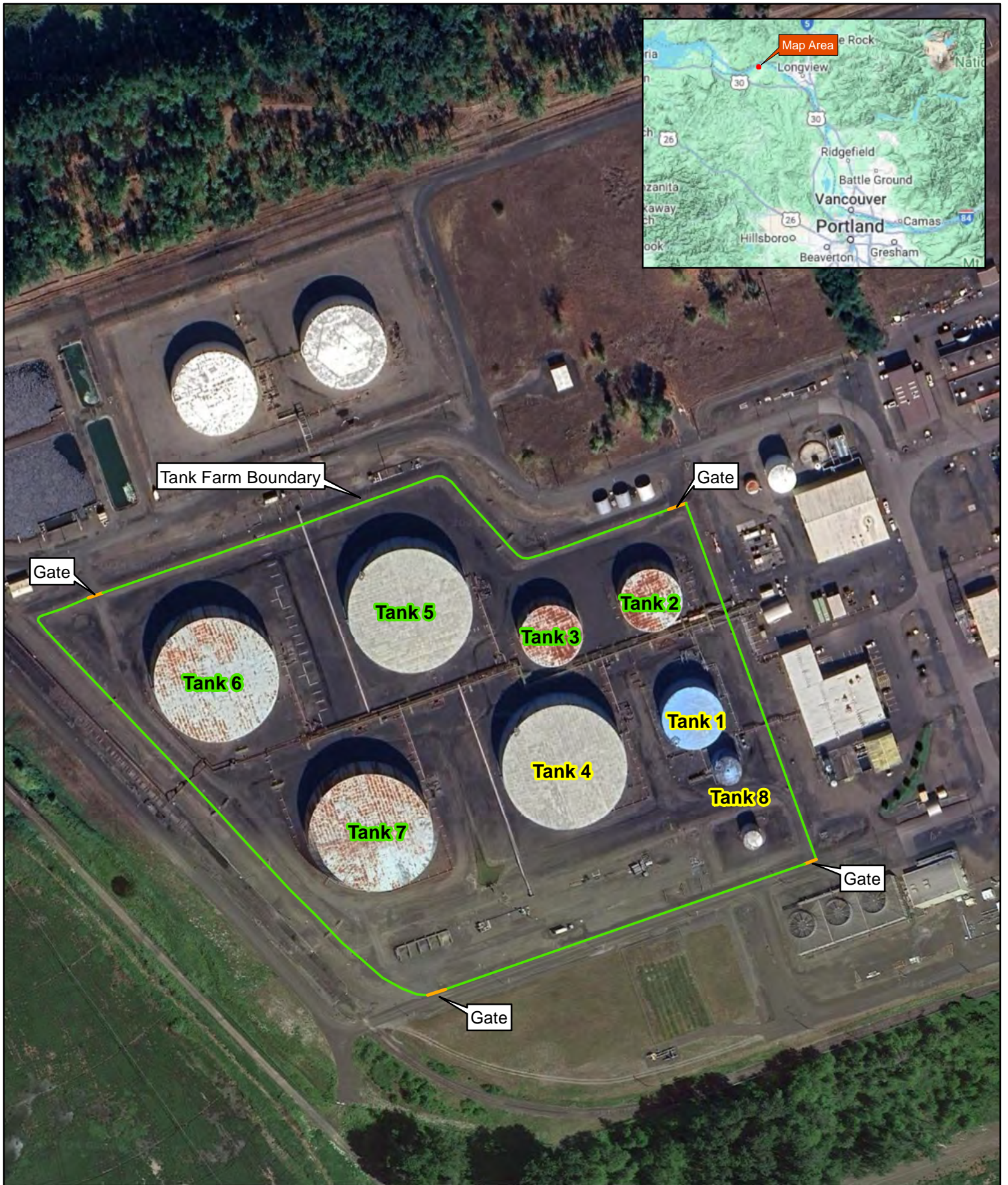


Figure 1
 Seismic Vulnerability Assessment
 Beaver Generating Plant

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