

LNG Peak Shaving & Liquefaction Facility Owner's Engineering

TACOMA, WA | PUGET SOUND ENERGY



Currently under construction in the Port of Tacoma, this liquefied natural gas (LNG) facility will be used to fuel marine vessels that deliver 40% of Alaska's goods.

Key Components:

- Owner's Engineering
- Front End Engineering Design Peer Review
- Geotechnical Design Peer Review
- Process Hazards Assessment

Construction on seismically challenged soils required complex subsurface design to support an 8-million-gallon full containment LNG storage tank, a liquefaction system sized for approximately 250,000 gallons per day of output, loading facilities for delivering LNG as fuel to marine vessels, LNG truck loading facilities, and regasification system to vaporize LNG to natural gas so it can be put back into the pipeline during periods of high demand.

Acting as the owner's engineer for [Puget Sound Energy](#), Sanborn Head provided front-end engineering design (FEED) review, code compliance support, and peer review of the geotechnical design. The overall facility design required considerable coordination with vessel owners to ensure that 500,000 gallons of LNG could be safely and efficiently conveyed to fuel tanks aboard the marine vessels, which were converted from diesel to LNG in response to an EPA rule to reduce emissions. Sanborn Head also participated in the execution of a process hazards assessment that focused on facility safety aspects.

Our involvement with the FEED allowed Sanborn Head to apply our expertise toward crucial facets of the design, including seismic challenges and operational and safety aspects.

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