Puyallup Tribe of Indians

September 5, 2019

VIA HAND DELIVERY, U.S. MAIL AND ELECTRONIC MAIL

Ralph Munoz
Engineer
Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105
Seattle, WA 98101

Re: Proposed Order of Approval No. 11386
Puget Sound Energy – Tacoma Liquefied Natural Gas (LNG) Plant

Dear Mr. Munoz:

The Puyallup Tribe of Indians hereby submits the attached comments to the Proposed Order of Approval issued by Puget Sound Clean Air Agency for the above referenced proposal that was released for public comment on July 22, 2019.

The Puyallup Tribe is a federally recognized Indian Tribe with its reservation located in Tacoma and surrounding communities in the State of Washington. The Puget Sound Energy – Tacoma Liquefied Natural Gas (LNG) Plant ("the Tacoma LNG Plant") proposal and its associated facilities are proposed to be constructed within and adjacent to the 1873 Survey Boundary for the Puyallup Tribe's Reservation. In addition to other lands, the Tribe owns land across two waterways from the proposed Tacoma LNG Plant. The lands owned by the Tribe are used as restoration sites providing critical and essential fish habitat, as cultural sites, and as marinas for both recreational and commercial boat traffic. Tribal members reside within miles of the facility and conduct usual and accustomed cultural activities, including fishing and shellfish harvesting, near the facility in Commencement Bay.

The Tribe, through the Medicine Creek Treaty of 1854, has a treaty right to fish in the waters surrounding the Tacoma LNG Plant and waters that will be impacted by the development and use at the proposed project site. The impacts to the waters, shorelines, habitat, and surrounding shoreline properties and uses go to the heart of the Tribe's culture and livelihood with potential impacts to fish, other wildlife, and natural resources, as well as impacts to the health and welfare of Tribal members. As is secured in Article VI, cl. 2 of the U.S. Constitution, the Treaty "shall be the supreme Law of the Land." As affirmed by *U.S. v. Washington,* the rights arising from the Medicine Creek Treaty cannot be diminished or interfered with absent authority from Congress.

While the Tribe appreciates the work performed by Puget Sound Clean Air Agency ("the Agency"), the proposed order, and the process leading up to the order, is a profound disappointment. The Agency has continued to fail to recognize its obligation to consult with the Puyallup Tribe, and once again the Tribe requests government to government consultation. This facility is proposed on the 1873 Survey Area, and on what were once the ancestral lands of the Tribe. The authority delegated to the Agency from the Clean Air Act includes the Clean Air Act's obligations to consult with Tribes. To date, no such consultation has occurred.

Furthermore, the Proposed Order, and the analysis upon which it is based, are fatally flawed as detailed in the attached comments. The Tacoma LNG Plant, as analyzed by the Agency, is fundamentally and significantly different than the project analyzed in the Final Environmental Impact Statement issued by the City of Tacoma. The Agency has failed to appropriately characterize and analyze the hazardous air pollutants this facility will emit. A result of this failure is that conclusions that place this facility in the minor source category are tenuous at best, and a more robust analysis must be performed for this facility as a major source for one or more pollutants. Also glaringly absent is any analysis as to the impacts that would occur from accidental releases ranging from minor to moderate leaks to the catastrophic explosive leak. All such scenarios are possible, yet have not been addressed in the Agency's analysis.

The Agency likewise has perpetuated the glaring omission of any meaningful environmental justice review or human health impact analysis. This facility will have a disparate impact on the Tribal community and other minority communities in the immediate vicinity. The Tribe once again demands that the agency conduct these reviews prior to finalizing any permit issuance.

The Tribe requests the government to government consultation to review the comments attached and discuss its findings through its expert Dr. Sahu. After such review, the Tribe is confident the Agency will proceed with the required analysis and supplemental environmental review required for this facility. The Tribe is confident that the Agency will, once the full analysis is completed, find this facility presents significant environmental and health risks that warrant reconsideration of its siting in the Tacoma Tideflats.

Please contact our legal counsel, Lisa A.H. Anderson (253) 573-7852, to schedule the government to government consultation. The Tribe reserves its rights to present additional comments throughout the review process.

Sincerely,

David Z. Bean, Chairman
Puyallup Tribal Council

cc: Governor Jay Inslee
Craig Kenworthy, Director, Puget Sound Clean Air Agency (via electronic mail)
Kelly McFadden, Chief, Air Permits and Toxics Branch, Air and Radiation Division, EPA

I. INTRODUCTION

The Puyallup Tribe of Indians ("Tribe") is a federally recognized Indian Tribe with its Reservation located in the State of Washington. The Tacoma LNG Plant and its associated pipelines are proposed to be constructed within and adjacent to the 1873 Survey Boundary for the Puyallup Tribe's Reservation. In addition to other lands, the Tribe owns land, held in trust by the United States for the benefit of the Tribe, directly across the waterway from the proposed Tacoma LNG Plant site. The lands owned by the Tribe directly across the waterway are used as restoration sites providing critical and essential fish habitat, as cultural sites, and as marinas for both tribal and non-tribal recreational and commercial boat traffic.

The Tribe, through the Medicine Creek Treaty of 1854, has a treaty right to fish in the waters surrounding the LNG Plant site – waters that will be impacted by the development and operation of the proposed facility site. Potential impacts to Tribal members and the resources they rely upon include impacts to the air, waters, shorelines, and fishing habitat. The Tribe has been a central figure in the clean-up of Commencement Bay in its role as a natural resource trustee. The potential consequences of the LNG plant strike at the heart of the Tribe's spiritual well-being, culture and livelihood.

The LNG facility's impacts also pose a very real threat to the health and welfare of Tribal members. The right of the Tribe to survive as a sovereign people is secured in Article VI, cl. 2 of the U.S. Constitution, which mandates that the Treaty "shall be the supreme Law of the Land." As affirmed by *U.S. v. Washington,* the rights arising from the Medicine Creek Treaty cannot be diminished or interfered with absent authority from Congress.

The Tribe submits these comments to the Draft Order of Approval pertaining to the proposed Tacoma Liquefied Natural Gas facility (the "Facility").[1] The Tribe must first make clear that PSCAA's preliminary determination is beyond disappointing. PSCAA's Draft Order of Approval signals the Agency's intent – and the intent of its Board – to disregard their public trust responsibilities and to fail the people of this state by not only allowing the introduction of a source of toxic pollutants to the airshed, but also by effectively endorsing a fossil fuel facility that will increase greenhouse gas (GHG) emissions to the atmosphere at a time when the planet simply cannot afford such an increase. The Tribe is also deeply troubled by the PSCAA's refusal thus far to engage in government-to-government consultation with the Tribe, which refusal is further discussed in Section II.A., below.

As discussed in greater detail below, the problems with PSCAA's preliminary determination are many. The Tribe urges PSCAA to revisit its preliminary determination, consider its substantive SEPA authority, and then utilize that authority to deny the Order of Approval based on the unmitigable impacts that this facility presents, including the impacts the facility will have on the airshed that the Tribe and the people of Tacoma rely upon. PSCAA should also utilize its substantive SEPA authority on the grounds that the facility has not been shown to be safely sited

[1] PSCAA's Notice of Construction Application Number for the Project is: 11386.

in a highly-populated area.[2] To date, the requisite hard look at the siting risks that the Tacoma LNG facility poses to human life has not been taken. These risks emanate largely from accidental emissions and resulting dispersion of flammable vapors, which falls squarely within PSCAA's regulatory charge. At the very least, PSCAA should require the preparation of a SEIS on potentials and impacts from releases before making a decision to grant or deny the Order of Approval.

Furthermore, although PSCAA has recognized that avoiding environmental injustices ***constitutes part of its mandate***, the Facility's impacts to the airshed are contrary to principles of environmental justice. Simply stated, granting these permits for this facility in this location, constitutes disparate impact discrimination. The Tribe also asks PSCAA to sit up and take notice that the information provided by the applicant grossly underestimates the facility's emissions of criteria pollutants, hazardous air pollutants (HAPs) and toxic air pollutants (TAPs). If PSCAA is looking at the facility's potential to emit (PTE) and if safe, clean air is something the Agency truly looks to effectuate, the Agency should go back and take a closer, more rigorous look at the pollutants this facility will be raining down upon the Tribe's reservation and the City of Tacoma.

The remainder of the Tribe's comments are organized as follows: Section II provides the Tribe's comments on PSCAA's preliminary determination to grant PSE's Notice of Construction (NOC) permit application and its Draft Order of Approval; Section III provides the Tribe's concluding remarks. Portions of Section II were developed in consultation with Dr. Ranajit Sahu (PH.D, QEP, CEM). Dr. Sahu – who has approximately thirty years of experience in the fields of environmental, mechanical and chemical engineering – is a consulting expert who assisted the Tribe in its review of PSCAA's preliminary determination. A copy of Dr. Sahu's *curriculum vitae* was previously provided to PSCAA in connection with the Tribe's comments on the Draft Supplemental Environmental Impact Statement for this facility.

The Tribe has offered to make Dr. Sahu available to discuss the points raised in the Tribe's comments to PSCAA. To date, PSCAA has not expressed any interest in having discussions with the Tribe or Dr. Sahu pertaining to this facility located on the Tribe's doorstep. The Tribe renews its offer to make Dr. Sahu available to PSCAA to discuss the points outlined in the Tribe's comments in connection with its permitting decision. These discussions should have taken place and been part of the requested and legally mandated Tribal-PSCAA consultation process.

II. COMMENTS REGARDING PSCAA'S PRELIMINARY DECISION ON PSE'S NOC APPLICATION

A. PSCAA HAS VIOLATED ITS LEGAL DUTY TO CONSULT WITH THE TRIBE, AND THE ORDER OF APPROVAL CANNOT BE ISSUED UNTIL PSCAA SATISFIES ITS MANDATORY CONSULTATION OBLIGATION.

PSCAA has failed to meet its obligation to consult with the Tribe regarding the NOC stating that it has no authority to conduct consultation with the Tribe. This is simply wrong. The

[2] The Tribe's concerns have been echoed by many, including the Washington State Office of the Attorney General. Additionally, the Tacoma Human Rights Commission recently requested a Supplemental Environmental Impact Statement (SEIS) focused on "the potential environmental hazards and human-rights injustices to vulnerable, frequently marginalized populations in and near the Tideflats area" that this facility poses.

Agency's unwillingness to address the Tribe's major concerns with the LNG facility in a direct and straightforward manner violates the Tribe's and its members' rights under the Treaty of Medicine Creek. Furthermore, the Agency's failure to consult with the Tribe ignores the Agency's legal obligation to exercise its delegated authority in a manner consistent with applicable State and Federal law. The obligation to consult with the Tribe does not simply fade away because the authorities were delegated to a local agency such as PSCAA.

B. PSCAA CAN AND SHOULD UTILIZE ITS SUBTANTIVE SEPA AUTHORITY TO DENY THE ORDER OF APPROVAL BASED ON IMPACTS IDENTIFIED IN THE 2015 EIS.

The State Environmental Policy Act ("SEPA") is the State of Washington's core environmental policy and review statute. Like its federal counterpart, the National Environmental Policy Act ("NEPA"), SEPA broadly serves two important purposes: (1) to ensure that government decision-makers are fully apprised of the environmental consequences of their proposed actions; and (2) to encourage public participation in the consideration of environmental impacts. *See Norway Hill Preservation and Prot. Ass'n v. King Co.*, 87 Wn.2d 267, 279, 552 P.2d 674 (1976).

In adopting SEPA, the Washington legislature declared the protection of the environment to be a core state priority. *See* RCW 43.21C.010. SEPA declares that "[t]he legislature recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment." RCW 43.21C.020(3). This policy statement "indicates in the strongest possible terms the basic importance of environmental concerns to the people of the state." *Leschi v. Highway Comm'n*, 84 Wn.2d 271, 279-80,525 P.2d 774 (1974).

SEPA is more than a purely "procedural" statute that encourages informed and politically accountable decision-making. Rather, in enacting SEPA, the Washington legislature gave decision-makers the affirmative authority to deny projects where environmental impacts are significant, cannot be mitigated, and/or violate local rules or policies. Indeed, SEPA provides substantive authority to condition or even deny proposed actions based on their environmental impacts, even where they meet all other requirements of the law. RCW 43.21C.060; *see also Columbia Riverkeeper et al. v. Cowlitz County et al.*, SHB No. 17-010c at *17 (Sept. 15, 2018) (acknowledging authority to impose conditions or deny a project based on greenhouse gas emissions).[3]

[3] As one SEPA treatise points out, when this premise was challenged by project proponents shortly after SEPA's enactment, "the courts consistently and emphatically responded that even if the action previously had been ministerial, it became ***environmentally discretionary*** with the enactment of SEPA." Richard Settle, SEPA: A Legal and Policy Analysis, § 18.01[2] (2014) (emphasis added). Decision-makers have also denied permits under this authority in a number of contexts, including those similar to the instant Project. *See, e.g., W. Main Associates v. City of Bellevue*, 49 Wn. App. 513, 521-23, 742 P.2d 1266 (1987) (upholding denial of permits based on historic and cultural impacts, view impacts, shadow impacts, traffic impacts, and air impacts); *State v. Lake Lawrence Pub. Lands Prot. Ass'n*, 92 Wn.2d 656, 659, 601 P.2d 494 (1979) (upholding denial of development of 14-acre parcel because of effects on bald eagles).

The Department of Ecology (Ecology) has shown how SEPA substantive authority can and should be used in cases like this. In 2017, Ecology denied with prejudice the Millennium Bulk Terminals-Longview (Millennium) request for a Section 401 Water Quality Certification for the proposed coal export terminal near Longview, Washington. After a careful evaluation of the final State Environmental Policy Act (SEPA) environmental impact statement, Ecology found that issuing the permit would be inconsistent with Ecology's substantive SEPA policies set forth in WAC 173-802-110.

Millennium appealed Ecology's permit denial to Superior Court and to the Pollution Control Hearing Board ("PCHB"). The Superior Court dismissed Millennium's appeal, and the PCHB upheld Ecology's decision. The PCHB – the Board that will hear an appeal of any PSCAA Notice of Construction determination pertaining to the Tacoma LNG facility – specifically rejected Millennium's position that Ecology's analysis of a water quality certification was limited to the water quality impacts addressed in the substantive permitting decision:

> The Board concludes that the text of CWA Section 401 does not preclude Ecology's use of substantive SEPA authority when acting on a Section 401 water quality certification request. As detailed above, SEPA's policies and goals are supplementary to "existing authorizations of all branches of government." RCW 43.21C.060. SEPA serves as an "overlay" on existing authority, making formerly ministerial decisions discretionary. *Polygon*, 90 Wn.2d at 65. A decision maker can use SEPA substantive authority to deny a permit even if it meets all of the requirements for approval under permit criteria. *Polygon*, 90 Wn.2d at 63-65; *West Main Assoc. v. City of Bellevue*, 106 Wn.2d 47, 53, 720 P.2d 782 (1986). Pursuant to RCW 43.21C.060, "[a]ny governmental action may be conditioned or denied" under SEPA. *See* WAC 197-11-660; *Polygon*, 90 Wn.2d at 64. There is no dispute that the granting or denial of a Section 401 water quality certification constitutes a governmental action within the meaning of RCW 43.21C.060. *See* WAC 197-11-704(2). The Board concludes that Ecology lawfully employed its SEPA substantive authority to deny Millennium's 401 Certification request based on the significant adverse environmental impacts identified in the FEIS.
> *Id*.

Like Ecology, PSCAA possesses the authority to deny a permit where a project will result in significant unavoidable adverse environmental impacts in violation of the substantive SEPA policies set forth in PSCAA's Regulation I, Section 2.12. *See* RCW 43.21C.060. A review of the significant unavoidable adverse impacts described within the Final Environmental Impact Statement (FEIS) for PSE's Tacoma LNG Facility shows that the facility project will result in significant unavoidable adverse impacts inconsistent with the substantive SEPA policies adopted by PSCAA, and thus PSCAA should exercise its substantive SEPA authority to deny all pending permits for the facility.

1. Unquantified Facility-Related Rail Traffic Emissions

Facility operations will involve rail traffic, but the FEIS provides no detail as to the frequency, volume, or emissions of such rail traffic, noting only that "[c]onstruction of the Tacoma LNG Facility would remove one of the two rail spur lines on site, and the other spur line would be

maintained for Proposed Action-related use." FEIS at 3.10-14. The FEIS does not provide further substantive details regarding rail transportation of LNG from the Facility.[4]

Discussing the Facility's impacts to existing rail transportation in the area of the Facility, the FEIS asserts that "[o]peration of the Facility would not impact the various rail lines present along the Blair-Hylebos peninsula on the proposed Tacoma LNG Facility site. […] [Roadway] [b]lockages would likely remain similar to those occurring under existing conditions, as increases in rail traffic are not anticipated, because Facility operations would add only minimal traffic to the rail network." FEIS at 3.10-17. Potential unquantified air impacts arising from Facility-related rail traffic include increased emissions on surface streets due to longer or more frequent delays at rail crossings as well as direct emissions from Facility-related rail traffic. A recent FEIS analyzing the impacts of emissions from rail traffic found that emissions of diesel particulate matter from train locomotives could cause an increase in cancer risk rate of up to 30 cancers per million for residents adjacent to rail lines. *See In the Matter of Denying Section 401 Water Quality Certification to Millennium Bulk Terminals-Longview, LLC*, Order No. 15417 (PCHB Sept. 26, 2017).

The FEIS does not provide substantive information regarding rail activity anticipated at the site, and no study of air quality related health risks caused by emissions from rail traffic has been conducted. The FEIS does not define or set limits on future levels of rail traffic at the facility or include other mitigation for this issue. Without sufficient information and analysis to identify, and if necessary, to mitigate the adverse impacts arising from Facility-related rail transportation, the mitigation identified in the FEIS cannot be relied upon to prevent significant adverse impacts. Due to these problems, approval of the Facility is inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I, and thus PSCAA must deny approval of the Facility pursuant to the authority provided at RCW 43.21C.060:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of

[4] Notably, in March of 2019, the first paragraph on the front page of Puget Sound Energy's ("PSE") website for the Facility notes that "[w]ith easy access to water, rail, and roadways, Puget LNG is located to efficiently provide LNG to transportation customers within the region" and also includes in a list of Facility capabilities- "Rail spur on site for future potential rail car loading." PSE appears to have removed that information from the website (for the time being).

living and a wide sharing of life's amenities.

2. Undisclosed Impacts on Transportation

The FEIS fails to disclose or address the adverse impacts of Facility-related rail operations on existing rail traffic, surface transportation, or emergency response. It further fails to fully address the adverse impacts of the Facility on maritime traffic. Because approval of the Facility would be inconsistent with the substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I, PSCAA must deny approval.

a. Impacts of Facility-Related Rail Operations

As discussed above at Section II.B.1., the FEIS acknowledges the Facility will involve rail traffic but provides no detail as to the frequency, or volume of such rail traffic. Due to the lack of information and accompanying analysis in the FEIS, it is unknown whether use of the rail spur for future potential rail car loading (or other as-yet-undisclosed activities) will result in significant adverse impacts to existing rail traffic or if such impacts can be reasonably mitigated. Without this information, approval of the Facility is inconsistent with PSCAA's substantive SEPA policies.

b. Facility Impacts to Existing Rail Traffic

The FEIS discusses vehicle traffic related to the Facility and its anticipated impacts on existing rail transportation in the area but does not discuss or address the impact of Facility-related rail traffic on existing rail use in the area. FEIS at 3.10-17. The FEIS acknowledges Facility-related rail traffic but does not discuss the scope of rail traffic related to facility operations or potential safety hazards arising from such traffic. Also, no limits are established for future Facility-related rail traffic. Because the FEIS is silent on these matters, the assertion that operation of the Facility will not cause significant unavoidable adverse impacts to rail transportation in the Port of Tacoma area is conclusory and unsupported. Due to these problems, approval of the Facility is inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

c. Project Impacts to Surface Transportation and Emergency Response

The information provided in the FEIS fails to establish that Facility-related rail traffic will

not result in unavoidable significant adverse impacts to vehicle traffic. The FEIS notes that "[t]rains crossing or stopped at an at-grade crossing can create traffic delays and prevent emergency vehicles from accessing a site" and provides a list of ten at-grade crossings located near the proposed Project sites. FEIS at 3.10-7. However, without analysis, the FEIS states that "[n]o significant changes in traffic patterns on the roadway network surrounding the Tacoma LNG Facility site are expected to result from Project operations" and further, that "[r]oadway blockages caused by rail are not expected to increase […]. [...] as increases in rail traffic are not anticipated, because Project operations would add only minimal traffic to the rail network." FEIS at 3.10-17. However, the FEIS does not discuss the scope of rail traffic related to project operations, potential safety hazards arising from such traffic, or set limits on future rail transportation at the facility. By failing to provide details regarding Project-related rail traffic, the FEIS provides no basis for the assertion that only minimal Project-related rail traffic will exist, and no basis for the assertion that operation of the Project will not cause significant unavoidable adverse impacts to surface transportation systems.

Additionally, the FEIS notes that the presence of the Project will have significant impacts on fire and emergency response service at the Tacoma Tideflats:

> [W]hen taken together with cumulative impacts from projected build-out of vacant and underdeveloped lands, it is anticipated that fire services access to the Tideflats will be significantly reduced below current levels unless a comprehensive mitigation strategy is phased in.

FEIS at 3.11-17.

Further, the FEIS notes that "[e]ven if no direct fire response is necessary by fire protection services, an operational incident would likely require the intervention of auxiliary services provided by the Tacoma Fire Department, such as EMS or hazardous materials response" and "**[t]hose rare incidents that would require direct intervention of fire response services are likely to be very severe** and require significant amounts of Tacoma Fire Department staff and equipment for both direct fire response and auxiliary services." FEIS at 3.11-17 (emphasis added). Due to the presence of the Project, "**rapid response at the Tacoma LNG Facility and TOTE Marine Vessel LNG Fueling System could leave other parts of the Tacoma Fire Department's service area temporarily unprotected** in case of such an incident." *Id*. (emphasis added). The traffic impacts of Project-related rail traffic could exacerbate this situation, but the FEIS does not address delays of emergency vehicles at crossings due to Project-related rail traffic. The FEIS includes specific mitigation measures for the Project's direct operational impacts on fire and emergency services but does not include any such mitigation measures for Project-related rail impacts on these services. FEIS at 3.11-22 to 26.

Without additional information regarding Project-related rail transportation, its impacts on surface transportation and emergency response, and appropriate mitigation for such impacts the FEIS fails to establish the Project will not cause unavoidable significant adverse environmental impacts. Accordingly, approval of the Project is inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

d. Maritime Traffic Impacts

The information provided in the FEIS also fails to establish that the Project will not have significant adverse impacts on maritime traffic. The description of maritime traffic contained within the FEIS does not reflect the current design of the facility, which was significantly modified after issuance of the FEIS, affecting the type and areas of Project-related maritime traffic. At the time the FEIS was issued, the Project was to involve operations on both the Blair and the Hylebos Waterways. FEIS at 3.10-9 to 3.10-10. Current plans for the Project omit operations on the Hylebos Waterway and instead direct intensified activity to the Blair Waterway. SEIS at p. 2-4 ("LNG may also be supplied to bunker vessels for subsequent transfer to ships. In this process, the bunker vessel would load LNG via the [TOTE Marine Vessel LNG Fueling System in the Blair Waterway]."). Because of these significant changes, the FEIS fails to meaningfully assess the increased likelihood of adverse impacts arising due to a shift in the quantity and location of vessel traffic that involves transfer and transportation of large quantities of LNG. It also fails to assess the intensified usage of the Blair Waterway from any perspective (much less one consisting of increased traffic involving ships carrying substantial quantities of combustible LNG).

Further, though the FEIS assumes that TOTE vessels will only be fueled twice a week at the facility, no enforceable limits are set forth for such marine activity – and the impacts of any such future increases remain unconsidered. Because the FEIS does not consider the full scope of Project-related impacts to marine traffic—or the safety issues related to intensified use of the Blair Waterway—it cannot be relied on to show the Project will not result in unavoidable significant adverse impacts. Approval of the Project is thus inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Preserve important historic, cultural, and natural aspects of our national heritage;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice;

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

3. Natural Hazards

The FEIS acknowledges that the Project is located in an area that is subject to a number of potentially catastrophic natural hazards, including earthquakes and associated soil liquefaction; tsunami; pyroclastic flow; lava flow; debris avalanche; and lahar. FEIS at 3.1-4 to 6. Additionally, the FEIS notes that average sea level rise predicted by researchers at the University of Washington and Department of Ecology may range from 3 to 55 inches by 2050. FEIS at 3.1-6. Despite its recognition of these threats, the FEIS does not contain a full analysis of the Project's impacts on the surrounding area if one or more of these events were to occur, and thus has not established that the Project will not cause unavoidable significant adverse impacts inconsistent with applicable substantive SEPA policies. PSCAA should exercise its substantive SEPA authority to deny approval of the Project.

a. Failure to Fully Address Tsunami Risk

The FEIS acknowledges that the Project site is located within a tsunami hazard area as shown on the Tsunami Hazard Map of Tacoma, Washington (Walsh et al. 2009) and that "tsunami wave inundation is likely" at the Project site. FEIS at 3.1-5. The FEIS indicates that a tsunami coinciding with "normal high tides" would encroach on the facility with a predicted maximum water depth of 4.5 feet (54 inches) with a current of about 0.9 miles per hour. The FEIS indicates that "facility foundations and components close to grade would be designed to resist forces generated by the listed currents" and accordingly, "Tacoma LNG Facility components would be located at their normal height above grade." FEIS at 3.1-5. Though the FEIS acknowledges tsunami as a natural hazard at the Project site, it fails to fully address current and future tsunami risk at the site by not considering the full range of tidal variation or climate change-related sea level rise and the impact of those factors on the severity of a tsunami event at the Project site.

b. Failure to Account for Full Range of Tidal Variation in Tsunami Analysis

Extreme high tide events known as "king tides" are not uncommon in Puget Sound and

Commencement Bay.[5] Despite this fact, the tsunami hazard analysis in the FEIS accounts only for inundation caused if a tsunami occurs during a "normal" high tide and ignores the increased threat posed if such a tsunami coincided with a king tide. FEIS at 3.1-5. The FEIS notes that the Project's facility foundations and components close to grade will be designed to resist forces generated by the predicted maximum inundation, and thus it cannot be relied on to describe the full health and safety hazards posed by the Project. FEIS at 3.1-5.

By failing to consider potential inundation levels resulting from a tsunami arriving during a king tide, the FEIS understates the current threat natural hazards pose to the Project. Because the full scope of tsunami hazard has not been considered and the FEIS indicates the Project will be designed to withstand only a lesser event, the FEIS cannot tell us what effect a tsunami coinciding with a king tide would have on the Project or if reasonable mitigation of the associated impacts of such a tsunami is possible. The analysis provides no information as to whether the Project design can safely withstand the inundation and current generated by an acknowledged plausible natural hazard. By failing to contemplate such an event, the FEIS fails to provide information necessary to assure that the Project is designed to prevent significant unavoidable adverse environmental impacts, and thus approval of the Project is inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- Maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

c. Omission of Effect of Sea Level Rise on Tsunami Inundation Analysis.

Beyond failing to address the full scope of risk currently posed by tsunami at the Project site due to tidal variation, the FEIS also fails to account for the effect that projected sea level rise will have on the tsunami hazard to the Project.

[5] *See* Washington Sea Grant, *King Tides Calendar*, available at: https://wsg.washington.edu/community-outreach/hazard-resilience-and-climate-adaptation/king-tides/calendar/ .

The Project is designed to operate for 50 years. FEIS at 3.5-12. The FEIS notes that in 2050, only 30 years into the Project's design-life, climate change may result in an average rise in global sea level of between 3 and 55 inches. FEIS at 3.1-6. The FEIS indicates the "facility foundations and components close to grade" would be designed to resist forces generated by tsunami inundation of up to 54 inches at a current of 0.9 miles per hour (a tsunami occurring during a "normal" high tide at the current sea level). FEIS at 3.1-5. At best, this analysis addresses only risks presented in today's environment. If sea level increases to the maximum extent predicted, a tsunami arriving at a normal high tide would inundate the facility with 109 inches of water, a depth more than double the inundation for which the Project has been designed.[6]

Though the FEIS acknowledges that conditions at the Project site will likely change over time, its analysis does not incorporate those anticipated changes to ensure the Project is designed to withstand a tsunami under the future conditions the EIS itself anticipates. By failing to appropriately account for this hazard, the FEIS fails to provide the information necessary to assure that the Project has been designed to survive such an event without causing significant unavoidable adverse impacts.

In sum, the FEIS does not consider the full extent of hazards related to the Project, and thus it cannot be relied on to show the Project will not result in unavoidable significant adverse impacts. Approval of the Project is thus inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice;

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

[6] Such an event coupled with a King Tide would result in even more extensive inundation. *See* Section 3(a)(i) *supra.*

d. Failure to Fully Address Risks Associated with Project's Siting Within a Known Volcanic and Lahar Hazard Area

The FEIS acknowledges that the facility is located within volcanic and lahar hazard areas, meaning that the area is subject to pyroclastic flows, lava flows, debris avalanche, and inundation by debris flows, lahars, mud flows and flooding resulting from volcanic activity (with mudflows, lahars, and flooding considered to be the most likely to occur at the Project area). FEIS at 3.1-5. The FEIS notes that the Project is in this hazard area and discusses the emergency notification system in the Tacoma Tideflats that would be used to broadcast specific instructions and evacuation routes in case of an event. FEIS at 3.1-5. The FEIS does not address the actual physical threats these hazards would present to the Project, whether the Project is designed to withstand such hazards, or the impacts on the people or the environment that the Project would cause if such a hazard occurred.

While it discusses the PEWS system and notes that the *City of Tacoma Comprehensive Emergency Management Plan* ensures that emergency operation and evacuation efforts in response to a lahar will follow FEMA's ICS/NIMS, the FEIS provides no information as to the direct or indirect effects of a lahar, mudflow, or volcanic-related flooding on the Project. The FEIS is silent as to whether these events could inundate the Project site and, if so, the effects of such inundation. Because the FEIS fails to address the effects of these hazards to the Project, the FEIS cannot establish that the Project will not result in unavoidable adverse environmental impacts. Approval of the Project is therefore inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- Maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

4. Health and Safety

a. Failure to Comply with Strict Design and Operations Measures Identified in FEIS as Essential to Prevent a Public Safety Hazard

The FEIS acknowledges that the Project will present a public safety hazard if strict design and operations measures are not followed. FEIS at 3.5-9. ("Operation of the Tacoma LNG Facility would not pose a potential public hazard if strict design and operations measures to control potential accidents were applied") (emphasis added). The discussion of health and safety impacts notes that "[p]otential safety hazards that could occur at the Tacoma LNG Facility relate to the specific characteristics of LNG and the conditions under which it would be handled and stored, and associated operations that are conducted involving other hazardous materials used at the facility" and that "[t]he potential hazards of most concern at the Tacoma LNG Facility are those related to the potential flammability of any vapors released from an LNG spill and the cryogenic liquid nature of LNG." FEIS at 3.5-9.

The FEIS cannot be relied on to establish that the Project will not have significant unavoidable adverse impacts on health and safety because it cannot show that strict design and operations measures have been followed. The FEIS is based upon a preliminary design that was significantly altered before construction of the Project commenced. Braemar Engineering and Ecology and Environment, Inc. conducted a technical review of the preliminary facility design and engineering and also the preliminary thermal radiation and vapor expansion modeling for the Project. The technical review noted that facility design and engineering and also the preliminary thermal radiation and vapor expansion modeling conducted was based on a design where "the level of detail has not reached the point where many of the [health and safety] issues are addressed in complete detail." FEIS at 3.5-17. The technical review found that "it is likely that most [health and safety issues] will be addressed by Tacoma LNG and CB&I as the design progresses." FEIS at 3.5-17 (emphasis added). Its work and conclusions are, to put it charitably, speculative.

This level of uncertainty is unacceptable in the context of an impacts analysis for a facility that is acknowledged to present a potential public safety hazard if strict adherence to design and operation measures are not followed. An analysis finding that it is "likely" that health and safety issues will be addressed at some later date does not establish that the Project will not cause significant unavoidable adverse impacts, nor does an analysis finding that "most" health and safety issues will be addressed. Compounding this deficiency in the FEIS, the Project's design has been significantly revised since the initial health and safety analysis was completed and no comprehensive supplemental analysis has been provided for the current design to establish whether the Project's impacts have changed due to the new Project layout or whether the mitigation discussed remains appropriate and/or sufficient. Accordingly, the FEIS does not contain a full analysis of Project's impacts on the surrounding area if these events were to occur, and thus has not established that the Project will not cause unavoidable significant adverse impacts inconsistent with applicable substantive SEPA policies. PSCAA must deny approval of the Project pursuant to the authority provided at RCW 43.21C.060.

b. Failure to Consider Credible Scenarios and their Associated Risk

The Tribe has significant concerns regarding the Project's health and safety impacts, particularly those related to fire or explosive events. The FEIS acknowledges the explosion risk, stating that "[p]otential impacts from the facility include thermal radiation from a fire or a vapor cloud from a release of LNG." FEIS at 3.5-16. Further, the FEIS notes that quantitative modeling is necessary to establish the exclusion zones that will ensure the Project does not adversely impact public safety. FEIS at 3.5-11 ("To define the extent of thermal vapor dispersion and thermal

radiation exclusion zones to ensure the public's safety requires quantitative modeling." (emphasis added). The FEIS states that thermal radiation and vapor dispersion modeling "conclusively demonstrates" that the exclusion zones remain within the property lines of the proposed site and thus prevent the health and safety risks posed by an off-site ignition, but ***the validity of this statement applies only to the scenarios for which modeling was conducted***. FEIS at 3.5-11.

No quantitative modeling for an eight-million-gallon worst-case vapor or thermal event was conducted to ensure the public's safety. PHMSA regulations establish the potential credible events (i.e. "accident scenarios") to be modeled for thermal and vapor events. FEIS at 3.15-16. A catastrophic tank failure was deemed "not credible," and thus the quantitative modeling and analysis of thermal radiation and vapor dispersion at the Project for such an event was not addressed. FEIS at 3.5-11. As discussed above, by failing to appropriately consider the natural hazards present at the Project site, the FEIS did not address plausible events that could potentially result in a breach of the LNG tank, and thus there are serious questions as to whether the analysis to determine what accident scenarios are "credible" was appropriate.[7]

Further, even assuming *arguendo* that quantitative modeling was conducted for all credible events, the modeling can only "conclusively demonstrate" that the risks of off-site ignition were addressed for a facility design that has substantially changed after the FEIS was issued. Due to these deficiencies in the FEIS, PSCAA must deny approval of the Project pursuant to its substantive SEPA authority.

c. Failure to Consider Potential Impacts of LNG Tank Failure Caused by Physical Damage to Tank

The FEIS provides no analysis regarding the risk of an LNG release due to failure of the LNG storage tank caused by impact damage. The only mention of impact damage to the LNG storage tank is in the context of a boiling liquid expanding vapor explosion.[8] The FEIS notes that "[a] common misconception of the flammability of LNG with respect to LNG tanks damaged by impact or impinged directly by flames is that this scenario has the potential to create a boiling liquid expanding vapor explosion (BLEVE)." FEIS at 3.5-11. The FEIS identifies a number of non-BLEVE health and safety hazards potentially associated with LNG, including overpressure (explosion) if ignited within a confined space; rapid phase transition and related overpressure caused by a spill of LNG onto water; and fire from a release of LNG caused by equipment failure or spill. FEIS at 3.5-11. In conclusory fashion, the FEIS states that the LNG storage tank is not susceptible to a BLEVE and ends its analysis there. It provides no information regarding the potential adverse impacts of a tank failure caused by physical damage to the tank beyond a potential BLEVE, thereby ignoring the health and safety risks posed by a release of LNG related to its low temperature, asphyxiation potential, and flammability.

Because the FEIS fails to address these hazards of the Project, the FEIS cannot establish

[7] Of particular note is the fact that the FEIS wholly fails to address the explosion at the peak shaving storage facility in Plymouth, Washington, which occurred before the FEIS issued.

[8] The explosion at the Plymouth, Washington facility punctured an LNG storage tank, demonstrating this is a reasonably foreseeable event at this facility – one that needs to be considered and analyzed.

that the Project will not result in unavoidable adverse environmental impacts. Approval of the Project is thus inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

d. The FEIS Omits Analysis of a Reasonable Worst-Case Scenario

The FEIS states that the modeling conducted "conclusively demonstrates that exclusion zones defined by federal regulation […], remain within the property lines of the proposed site. Keeping all spilled LNG (and any potential resulting flammable vapor clouds) within the property boundary eliminates the risk of off-site ignition." FEIS at 3.5-11. However, no modeling of a potential eight-million-gallon worst-case release scenario was conducted because such an event was not considered to be credible. Though the FEIS does not provide details as to how such a release was determined to be not-credible, the analysis of the risks posed to the Project by natural hazards such as tsunami, lahar, and other volcanic-related events does not fully address how those hazards could impact the Project site. Without information regarding how these potential high-impact events would affect the Project, there is no support for the determination that a catastrophic event is not credible. Thus, the decision not to model such a scenario, which would serve to inform and educate both decision-makers and the public, is not credibly supported.

The FEIS notes that Braemar Engineering and Ecology and Environment, Inc.'s technical review of the preliminary facility design and engineering and results of the preliminary thermal radiation and vapor expansion modeling completed for the Project was based on a design where "the level of detail has not reached the point where many of the [health and safety] issues are addressed in complete detail." FEIS at 3.5-17. However, "**it is likely** that most will be addressed by Tacoma LNG and CB&I as the design progresses." FEIS at 3.5-17 (emphasis added). Braemar provided a checklist of pending conditions "to be confirmed when the design is complete; however, a few are recommendations of conditions noted for improving safety or reliability." FEIS at 3.5-17. These pending conditions listed at page 3.5-8 of the FEIS state:

- "The technical design of the Project was found to be sound engineering."

- The technical design of the Project has changed significantly since the FEIS was issued, and thus this statement cannot be relied upon to apply to the current Project.

- Noting that preliminary siting studies were performed for the Project using preliminary modelling tools and that "[m]ore advanced modeling is required later in detailed engineering when the design is further defined using Computational Fluid Dynamic (CFD) software. The updated CFD models should be reviewed when they are complete to confirm that all vapor dispersion and thermal radiation conditions for the installation have been met and accepted by PHMSA."

    - No information is available regarding such updated modeling. This is problematic because it is axiomatic that one must determine that the Project is safely sited before it is built, and before it is authorized to operate.

- "An LNG release vapor or fire incident at this location [aboveground pipe rack and TOTE dock] would have greater consequences due to crowding, as well as impacts on dock workers unaffiliated with the LNG facility operation. For an LNG incident scenario involving release of LNG at or near the dock, [vapor dispersion and thermal radiation] will extend beyond the security fence to the adjacent property."

    - This acknowledged significant adverse impact reaching off the Project site is acknowledged, but the hazards posed to dock workers unaffiliated with Project operations remains unmitigated.

The health and safety analysis in the FEIS is based on what was acknowledged in 2015 to be a preliminary project design. Indeed, Braemar's technical review indicates that additional modeling of the detailed Project design would be necessary. Yet, the Project that is under construction has been significantly redesigned since the FEIS was issued, and thus the health and safety analysis contained within the FEIS cannot be relied upon to accurately represent the impacts of the current Project. The FEIS cannot establish that the current Project will not result in unavoidable significant adverse environmental impacts inconsistent with the following substantive SEPA policies set forth at PSCAA Regulation I, Section 2.12:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice;

- Achieve a balance between population and resource use that will permit high standards of

living and a wide sharing of life's amenities; and

- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

5. Impacts of Project-Related Noise and Vibration

The noise analysis in the FEIS notes that "the primary source of operational noise for the project during operations would be the Tacoma LNG Facility". FEIS at 3.6-7. Noise sources at the Project noted in the FEIS including bunkering barge mooring and loading, and the operation of a number of pumps, compressors, vaporizers, fans, and blowers. The FEIS contains no discussion of the potential noise and vibration impacts to the immediate area or to homes and businesses caused by Project-related rail use acknowledged in the FEIS. Further, the FEIS does not provide reasonable assurance that the noise and vibration related to the proposed Project will not cause significant unavoidable adverse noise- or vibration-related impacts inconsistent with applicable substantive SEPA policies.

a. Construction Noise Impacts

The FEIS analysis of construction noise impacts focuses primarily on pile driving for both ground improvements and in-water work. The FEIS states that airborne noise produced by pile driving using a vibratory driver is described as "a continuous or steady noise" that "can be substantial and has been reported to be louder than impact drivers when driving sheet piles." FEIS at 3.6-6. It also notes that the ground improvement pile driving "work would be accomplished during the daytime construction hours allowed by code" and that "[d]aytime construction activities are exempt from the various noise regulations in the Proposed Action area, including those at the state and local levels. Therefore, by regulatory definition, there would be no daytime construction noise impacts." FEIS at 3.6-6. By conflating regulatory thresholds for construction noise with real-world impacts, the FEIS sidesteps a full consideration the impacts of construction noise on the environment and avoids also providing a quantitative analysis of the noise outside of the specific activity of pile-driving.

Because the FEIS does not consider the full scope of the Project's construction-related noise impacts, it cannot establish that the Project will not result in unavoidable significant adverse impacts inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Preserve important historic, cultural, and natural aspects of our national heritage;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

b. Operational Noise Impacts

In its discussion of operational noise impacts, the FEIS notes that "[v]endor-specific noise information is not currently available for the Tacoma LNG facility." FEIS at 3.6-7. Instead of providing specific information about the noise impacts of the operation of the Project, the FEIS states that "PSE would ensure that its operation complies with the applicable noise regulations." FEIS at 3.6-7.[9]

Despite the lack of information regarding the levels of operational noise, and thus its impacts, the FEIS lists five noise minimization measures. FEIS at 3.6-7 to 8. At least three of these measures are meaningless or have already been ignored by PSE. Noise Minimization Measure 2 is too speculative to be meaningful, noting that "[s]emi-permanent stationary equipment (e.g., generators and lights) **might** be available in "quiet" packages and would be stationed as far from sensitive areas as possible." FEIS at 3.6.6.2 (emphasis added). Noting that a package "might" be available in a quiet package is not mitigation.

Noise Minimization Measure 4 states that "PSE would establish a phone number or other effective means for the public to report any significant undesirable noise conditions associated with construction and operation of the Tacoma LNG Facility." FEIS at 3.6.6.4. Despite the passage of a substantial amount of time since significant construction commenced at the Tacoma LNG site, an online search and review of the Project-specific websites yields that no such "effective means" exist for the public to report undesirable noise conditions.

PSE has also shown it has no intent to satisfy Noise Minimization Measure 5 of the FEIS, as this measure involves PSE or its authorized agent documenting, investigating, evaluating, and attempting to resolve noise complaints related to the construction and operation of the Project. Without an avenue for such noise complaints to be submitted, this purported mitigation measure is farcical.

The analysis of noise impacts in the FEIS concludes by stating that "with implementation of the above mitigation measures, no significant unavoidable adverse noise-related impacts would be expected for the proposed action." FEIS at 3.6-8. Because the majority of the enumerated noise mitigation measures are speculative, and others remain unperformed, the FEIS does not establish that Project will not cause unavoidable and significant adverse environmental impacts inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

[9] How the author of the FEIS could credibly make such a conclusory representation remains unclear.

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- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Preserve important historic, cultural, and natural aspects of our national heritage;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

c. Unexamined Noise Impacts of Project-Related Rail Operations

The FEIS fails to discuss the noise and vibration impacts arising from Project-related rail traffic. The FEIS acknowledges Project-related rail activity, but no analysis is provided as to the scope, purpose, or impacts of such traffic. *See* FEIS at 3.10-14. Without further analysis regarding the impacts of Project-related noise and vibration the FEIS fails to provide sufficient information to establish that the Project will not cause unavoidable significant adverse environmental impacts. Any argument that there would not be negative impacts from rail traffic would be spurious – as acknowledged in Ecology's denial of the 401 Certification for the Millennium Bulk terminal, trains are loud and impactful to the surrounding area as a result. *See In the Matter of Denying Section 401 Water Quality Certification to Millennium Bulk Terminals-Longview, LLC*, Order No. 15417 at 8 (PCHB Sept. 26, 2017).

In sum, the FEIS fails to appropriately address noise impacts arising during construction and operation of the Project, and thus it cannot establish that the Project will not cause unavoidable significant adverse environmental impacts inconsistent with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Preserve important historic, cultural, and natural aspects of our national heritage;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice;

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

C. PSCAA'S PRELIMINARY DETERMINATION IS FLAWED BECAUSE OF FLAWS IN THE SEIS.

The SEIS appears to have factored into the Draft Order of Approval and Condition No. 40. However, the SEIS remains thoroughly flawed. To the extent PSCAA relies on the SEIS in arriving at its preliminary determination to grant an Order of Approval to Tacoma LNG, that reliance is misplaced. The SEIS failed to correct a number of the problems identified in the comments that were critical of the Draft SEIS. Like the DSEIS, the SEIS continues to present a simplistic, unrealistic, and biased analytical framework designed to reach a pre-determined outcome. Further, many assumptions undergirding the SEIS' analysis, including economic assumptions, are so skewed in favor of the Project, that the SEIS' ultimate conclusion concerning the Project is neither correct nor a legitimate basis upon which PSCAA can make a permitting decision.

Like the DSEIS, the SEIS fails in its fundamental purpose of presenting the "reasonably thorough discussion" of environmental impacts related to the Project's GHG emissions that SEPA requires. *Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council,* 165 Wn.2d 275, 312, 197 P.3d 1153 (2008). These flaws denied PSCAA the opportunity to take a realistic view of the facility, instead leaving PSCAA with what was, respectfully, a bill of goods. PSCAA now appears to be on the precipice of making decisions and taking actions that will have long-lasting and significant adverse environmental impacts based on that faulty, biased analysis.

As discussed in the Tribe's comments on the Draft SEIS, PSCAA should utilize its substantive SEPA authority to deny the Project based on its greenhouse gas impacts. Those reasons will not be repeated here; rather, the Tribe's comments regarding the DSEIS' flaws (many of which flaws were not corrected but instead carried forward to the Final SEIS) are incorporated into these comments by reference. However, the Tribe will reiterate here that the Tacoma LNG Project will disproportionately expose the Puyallup Tribe to hazards, including the impacts of climate change. It is well-within PSCAA's regulatory charge to take actions that protect the Tribe and Washington's citizens from such hazards, including using its SEPA substantive authority to

do so. The Tribe submits that PSCAA has a moral responsibility to take such action here.[10]

D. PSCAA's PRELIMINARY DETERMINATION TO GRANT THE ORDER OF APPROVAL IS PREMATURE BECAUSE THE FACILITY'S DESIGN IS INCOMPLETE.

The design of the facility is not complete and continues to change. Most notably, statements made by the City's consultant, Braemar Technical Services, concerning its siting and safety review of the facility indicates that safety analyses are ongoing. Specifically, Braemar's recent draft report, dated March 5, 2019 [11] provides:

> "The July 2, 2018 Tacoma LNG Fire and Safety compliance evaluation was based on project status at the time of the evaluation. Tacoma LNG Operating Procedures will be reviewed after they are submitted to the Tacoma Fire Department." [12]

> "The Tacoma Fire Department agrees that the operating procedures must be evaluated and has set aside budget for the evaluation of the operating procedures. The operating procedures will be evaluated after they are prepared and submitted by the operator for evaluation."[13]

Further, correspondence between the Washington Utilities and Transportation Commission, the state agency charged with addressing safety performance of this proposed facility, and at least one Federal agency (the Pipeline and Hazardous Materials Safety Administration and its apparent consultant), makes clear (1) that safety reviews have continued after the FEIS and (2) that safety analyses conducted to date may be significantly deficient and uncured. ***See*** **Attachment # 2**.[14]

Thus, there is a high probability that the facility's design and its operations will need to undergo revisions, which will likely result in changes to facility details (including equipment layout and design details). Those changes will almost-certainly affect the facility's air emissions (including its Potential to Emit (PTE) for various pollutants). Air permitting is premature and should occur only after facility design is finalized.

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[10] The Tribe will add that permitting such a project is contrary to PSCAA's mission to manage air quality in the Puget Sound region to reduce activities contributing to climate change. *See* PSCAA, 2014-2020 Strategic Plan, at 20-21. Proceeding with the project in spite of anticipated climate warming impacts also violates PSCAA's mission to manage air quality in the Puget Sound region to reduce activities that contribute to climate change. PSCAA ought to deny the Order of Approval or stay any decision on the NOC Application until a revised SEIS on the facility's GHG impacts is completed.

[11] And thus, prepared well-after PSE submitted its NOC application to PSCAA. Copies of cited pages from the draft report are provided as **Attachment # 1**.

[12] *Id*. at p. 8 (underline added).

[13] *Id*. at p. 17 (underline added).

[14] July 29, 2016 correspondence from Roy Lucas to WUTC and PHMSA staff.

E. PSCAA'S PRELIMINARY DECISION TO GRANT AN ORDER OF APPROVAL CONCERNING THE FACILITY RELIES ON PROCESS DETAILS THAT ARE NOT AVAILABLE TO THE PUBLIC OR (APPARENTLY) TO PSCAA.

The NOC application relies greatly on process inputs to emissions calculations provided by Chicago Bridge and Iron (CB&I). *See, e.g.*, May 2017 NOC Application, App'x C. PSCAA's permitting record contains no technical support backing up (or otherwise supporting the correctness of) CB&I's process calculations. It is likewise unknown what CB&I provided to Landau and Associates to perform its work that was subsequently submitted to PSCAA in support of PSE's NOC application.

PSCAA's Engineering Review Worksheet makes clear that its analysis hinged largely on the inputs furnished by CB&I, and unidentified "vendors" and "manufacturers." So, the Tribe requested that PSCAA furnish the materials it received from CB&I as well as other vendors and manufacturers cited in the Engineering Review Worksheet. PSCAA did not provide these materials in response to these requests, apparently because PSCAA never received these underlying critical, technical details in the course of its analysis.[15]

Accordingly, it appears that PSCAA did not vet what it was furnished by the applicant as part of its review of the NOC application. Rather, it appears that PSCAA simply assumed that the technical analyses underlying PSE's NOC application were correct and reliable. Apart from being inconsistent with PSCAA's role ***as a regulator***, such rubber stamping constitutes a significant deficiency in PSCAA's Draft Order of Approval because, as discussed below, it has resulted in a gross underestimation of the Facility's impacts to air quality.

F. THE ORDER OF APPROVAL DOES NOT MAKE CLEAR WHETHER THE NUMBERS IN ITS ENGINEERING WORKSHEET AND ITS PRELIMINARY DECISION (PRESUMABLY BASED ON THOSE NUMBERS) ARE PREDICATED ON THE NOTION THAT THE LNG FACILITY WILL BE PRODUCING NO MORE THAN 250,000 GALLONS OF LNG PER DAY.

The facility's overall emissions (including the potential to emit (PTE) for each pollutant) will depend on the assumed LNG production capacity at the facility. Yet, on this very basic point, there continues to be a significant discrepancy between the PSCAA's preliminary determination

[15] On August 5, 2019, a PSCAA representative stated that all records PSCAA "considered … in preparing the 'Engineering Review Worksheet' " had already been provided. ***See*** **Attachment # 3**. To date, the Tribe has not received any of the following: (1) information furnished by the flare vendor providing a basis for the statement at pg. 41 of the Engineering Review Worksheet that, "the vendor has designed the flare for 99.5% control"; (2) certifications and/or guarantees providing a basis for the statement at pg. 41 of the Engineering review worksheet that the flare will in fact achieve a certain level of "destruction efficiency"; (3) "Vendor design specification[s] provided by CB&I," referred to in the Table at pg. 37 of the Engineering Review Worksheet; (4) estimates provided by the flare manufacturer underlying the statement at pg. 44 of the Engineering Review Worksheet that, "Carbon monoxide emissions were estimated from the flare manufacturer based on the design and the methane content of waste gases entering the flare"; (5) estimates provided by the flare manufacturer underlying the statement at pg. 44 of the Engineering Review Worksheet that, "NOx emissions were estimated from the flare manufacturer based on the design and the amount of excess air combusted in the flare"; (6) information (including documents and calculations) from Chicago Bridge & Iron upon which PSCAA relies in its Engineering Review Worksheet.

and the SEIS performed in connection with PSCAA's permitting decision.

PSCAA's Engineering Review Worksheet (at pg. 6) states that the "Daily production capacity has been reduced from 500,000 gallons in the FEIS to 250,000 gallons for the NOC to reflect current facility design." However, the 250,000 gallons per day production capacity, the single most important production parameter for the facility, does not appear at all in the Draft Order of Approval as a limiting condition. Further, the statement in PSCAA's Engineering Worksheet is ambiguous because "current" facility design can be modified to handle the larger production rate without having to amend the Order of Approval.

Are the numbers underlying PSCAA's permitting analysis predicated on a scenario in which Tacoma LNG is producing 250,000 gallons of LNG per day? Is PSCAA's permitting decision predicated on a scenario in which Tacoma LNG is producing 250,000 gallons of LNG per day? If so, PSCAA should include a permit condition prohibiting Tacoma LNG from producing more than 250,000 gallons of LNG per day. Otherwise, the facility's design and its potential to emit (PTE) analysis should be based on a scenario where the facility is producing 500,000 gallons of LNG per day.

G. THE FACILITY'S EMISSIONS ARE UNDERESTIMATED, WHICH UNDERMINES THE BASIS FOR PSCAA'S PRELIMINARY DETERMINATION.

PSCAA's Engineering Review Worksheet recognizes (*e.g.*, at pgs. 38, 48, 49, and 50) that an objective of estimating the facility's emissions is to ascertain its Potential to Emit (PTE) emissions for each of the pollutants that are likely to be emitted from the facility. Potential to Emit is defined as "the **maximum** capacity of a source to emit a pollutant under its physical and operational design." WAC 173-400-030 (76) (emphasis added); *see also* 40 CFR 52.21(b)(1). This definition makes it clear that the PTE should reflect the "maximum capacity" of the source or activity to emit pollutants.

"Maximum capacity" cannot be predicated on the average rate at which a facility emits. Yet, PSE's NOC Application and PSCAA's Engineering Review Worksheet do not reflect PTE. Rather, at most, the calculations PSE provides (and PSCAA utilizes in its Engineering Review Worksheet) reflect **average** emissions – and even those figures are of poor quality and use unsupported assumptions, resulting in underestimated PTE emissions from the facility.

1. The use of non-representative (and deficient) meteorological data in the modeling is improper and undermines the basis for PSCAA's preliminary determination.

Even though the applicant has been contemplating this facility for many years, and has had access to the Tacoma Tideflats site since at least 2014, no on-site meteorological data has been collected. The applicant has instead cobbled together bits and pieces of other meteorological data available in the region and, as part of this, supplemented the Tideflats data (which only has measurements for wind speed and wind direction) by creating four patchwork-like meteorological data sets. Instead of requiring on site-modeling (or at least demonstrably representative data), PSCAA relied on that patchwork in arriving at its preliminary decision to grant the Order or Approval.

Given its location at the Port – with adjacent hills to the north and the complex meteorology at land-sea interfaces – the failure to gather and utilize on-site meteorological data severely compromises the results of the modeling PSCAA relies upon. Indeed, both PSCAA and the applicant recognized the limitations in the methodology they use, as they were choosing the "most representative" of non-representative data. PSE September 8, 2017 Submission at p. 1 ("LAI agrees with you that the Tideflats monitoring station is the most representative source of wind ***data*** (speed and direction) for our project.") (emphasis added). On-site meteorological data should have been used in the modeling, including for all required parameters for modeling. Before making a final decision to grant or deny the permit, PSCAA should require on-site monitoring data to obtain objectively accurate results and ascertain the facility's maximum impacts to air quality.

2. The emission factors undergirding PSCAA's analysis and preliminary determination (1) result in the underestimation of air emissions from the facility and (2) do not result in an accurate analysis of the facility's potential to emit.

a. The use of AP-42 Emission Factors provides estimates of average air emissions and results in an underestimation of the facility's air emissions.

i. AP-42 Provides Estimates of Average Emissions, Not of PTE.

PSCAA's assessment of facility emissions is, in many instances, predicated on the use of AP-42 emission factors. The persistent bias introduced by the reliance on the AP-42 results in significant underestimations of the facility's emissions.

A key limitation of AP-42 for PTE calculations is that its factors are designed only to approximate average emission rates, not the maximum emission rate needed to appropriately calculate PTE for permitting purposes. As stated by the EPA:

> "In most cases, these factors are simply averages of all available data of acceptable quality, and are generally assumed to be representative of long-term averages for all facilities in the source category (i.e., a population average)." [16]
>
> "Emission factor ratings in AP-42…provide indications of the robustness, or appropriateness, of emission factors for estimating average emissions for a source activity."[17]
>
> "Emission factors in AP-42 are neither EPA-recommended emission limits . . . nor standards. . . Use of these factors as source-specific permit limits and/or as emission regulation compliance determination is not recommended by EPA.

[16] AP-42 Introduction, p. 1 (available at: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors).

[17] *Id*. at p. 2 (emphasis added).

> Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factor."[18]

And, additionally:

> "Average emissions differ significantly from source to source and, therefore, emission factors frequently may not provide adequate estimates of the average emissions for a specific source. The extent of between-source variability that exists, even among similar individual sources, can be large depending on process, control system, and pollutant. . . As a result, some emission factors are derived from tests that may vary by an order of magnitude or more. Even when the major process variables are accounted for, the emission factors developed may be the result of averaging source tests that differ by factors of five or more."[19]

The foregoing makes clear that AP-42 emission factors are inappropriate for developing PTE estimates because (as discussed above) PTE, by definition, represents the "potential" (that is, the upper-end) emission estimate value. By definition, AP-42 emission factors do not represent potential emission estimate values because AP-42 represents "average" emission rates. Thus, in each instance that PSCAA's Engineering Review Worksheet and Draft Order of Approval rely on AP-42 emission factors, the resultant PTE emissions are underestimates. This error has material consequences because PTE estimates are a key input in the modeling impacts analysis.

PSCAA should require the applicant to re-perform all PTE emissions estimates that rely on AP-42 factors. That re-performance should use data that more accurately reflects the source's maximum emissions rate (as opposed to an average rate).

ii. PSCAA's reliance on AP-42 emission factors is further compromised by the fact that many of the factors relied upon are not accurate.

Even if it were proper to rely on the AP-42 factors to calculate PTE, which it is not, the applicant's reliance on low-ranked and/or inaccurate AP-42 factors should be rejected by PSCAA.[20] AP-42 uses a rating system, provided below, to provide the user with the accuracy of a particular emission factor:

> Each AP-42 emission factor is given a rating from A through E, with A being the best. A factor's rating is a general indication of the reliability, or robustness, of that factor. This rating is assigned based on the estimated reliability of the tests used to develop the factor and on both the amount and the representative

[18] *Id.* at p. 2 (emphasis added).

[19] *Id*. at p. 3 (emphasis added).

[20] Neither the applicant nor PSCAA mentions or discusses the reliability of AP-42 emission factors.

characteristics of those data. In general, factors based on many observations, or on more widely accepted test procedures, are assigned higher rankings. Conversely, a factor based on a single observation of questionable quality, or one extrapolated from another factor for a similar process, would probably be rated much lower….

The AP-42 emission factor rating is an overall assessment of how good a factor is, based on both the quality of the test(s) or information that is the source of the factor and on how well the factor represents the emission source. Higher ratings are for factors based on many unbiased observations, or on widely accepted test procedures. For example, ten or more source tests on different randomly selected plants would likely be assigned an "A" rating if all tests are conducted using a single valid reference measurement method. Likewise, a single observation based on questionable methods of testing would be assigned an "E", and a factor extrapolated from higher-rated factors for similar processes would be assigned a "D" or an "E".

AP-42 emission factor quality ratings are thus assigned:

A — Excellent. Factor is developed from A- and B-rated source test data taken from many randomly chosen facilities in the industry population. The source category population is sufficiently specific to minimize variability.

B — Above average. Factor is developed from A- or B-rated test data from a "reasonable number" of facilities. Although no specific bias is evident, it is not clear if the facilities tested represent a random sample of the industry. As with an A rating, the source category population is sufficiently specific to minimize variability.

C — Average. Factor is developed from A-, B-, and/or C-rated test data from a reasonable number of facilities. Although no specific bias is evident, it is not clear if the facilities tested represent a random sample of the industry. As with the A rating, the source category population is sufficiently specific to minimize variability.

D — Below average. Factor is developed from A-, B- and/or C-rated test data from a small number of facilities, and there may be reason to suspect that these facilities do not represent a random sample of the industry. There also may be evidence of variability within the source population.

E — Poor. Factor is developed from C- and D-rated test data, and there may be reason to suspect that the facilities tested do not represent a random sample of the industry. There also may be evidence of variability within the source category population."[21]

The foregoing makes clear that "D" and "E" rated factors are particularly unreliable.

[21] *Id*. at pp. 8-10.

Nevertheless, the applicant has used factors rated D and E in numerous instances to estimate the PTE for facility. Notable examples include NOC application's use of – and the draft Order of Approval apparent acceptance of – AP-42 emission factors for criteria pollutants such as PM / PM10 / PM2.5 as well as for multiple HAPs. *See* PSCAA Engineering Review Worksheet at pgs. 38 and 44. Table 1.4-2 from AP-42 indicates the PM condensable and PM total factors are rated D, "below average." The VOC factor (used for the vaporizer) has a C rating. With few exceptions, most of the emission factors for HAPs the facility will emit (from combustion of natural gas) are rated D or E. in Tables 1.4-3 and 1.4-4, used by the applicant.[22] In other words, the emission factors being used to assess HAPs from the facility are "below average" or "poor."

3. The analysis of flare emissions contains both shortcomings and errors resulting in a gross underestimation of emissions from the facility (particularly for purposes of assessing PTE).

One of the largest sources of emissions from the proposed facility is the ground flare. There are several issues with the manner in which the ground flare emissions are estimated.

a. PSCAA's preliminary determination fails to acknowledge (much less account for) the fact that there will be considerable variability in the composition of flare gases at the facility – especially considering the facility's 40-year life.

Input assumptions for the facility's flare do not properly consider the variability of the flare gas composition. Significantly, PSE's March 29, 2019 Supplemental Information letter to PSCAA (at pg. 2) confirmed that variability of flare gas composition is expected:

> "[B]ecause combustion processes and emissions differ significantly for ground flares that have enclosed flames vs. elevated flares that have open flames, our review then narrowed to clearinghouse entries for ground flares. As we have previously mentioned, ground flares in use at landfills and oil and gas fields are not representative source types due to the significant differences in waste gas composition that we identified in our November 2017 communications with you…"

The considerable variability in the composition of the flare gases at the facility is exacerbated by the facility's envisioned 40-year life. Yet, in the "Flared Waste Gas Characteristics" table in PSCAA's Engineering Review Worksheet (at pg. 42), the concentrations of all of the HAPs are set at the same level for all flare waste gas cases, including when natural gas will be combusted:

[22] AP-42, Ch. 1 Natural Gas Combustion, Tables 1.4-1 through 1.4-4, https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf

Parameters	Natural Gas[a]	Flared Waste Gas[a]					
		Liquefying Case 1	Liquefying Case 2	Liquefying Case 3	Liquefying Case 4	Liquefying Case 5	Holding
Heat Content (Btu/scf)	1,093	346	466	1,644	864	1,825	1,144
Density (lb/scf)	0.046	0.101	0.091	0.088	0.097	0.087	0.049
Sulfur Content (ppmw)[c]	25	337	912	524	250	587	17
VOC Content (wt%)	NA	9.6%	14%	51%	24%	58%	17%
Benzene Concentration (µg/m³)[b]	2,980	2,980	2,980	2,980	2,980	2,980	2,980
Ethylbenzene Concentration (µg/m³)[b]	144	144	144	144	144	144	144
m,p-Xylene Concentration (µg/m³)[b]	986	986	986	986	986	986	986
o-Xylene Concentration (µg/m³)[b]	165	165	165	165	165	165	165
Toluene Concentration (µg/m³)[b]	2,570	2,570	2,570	2,570	2,570	2,570	2,570

Notes:

[a] Provided by CB&I.

This assumed uniformity is contrary to the acknowledged variability of the flare gas composition.

b. The Destruction Efficiency assumption concerning Volatile Organic Compounds (VOCs) and Organic Hazardous Air Pollutants (HAP) appears to be flawed.

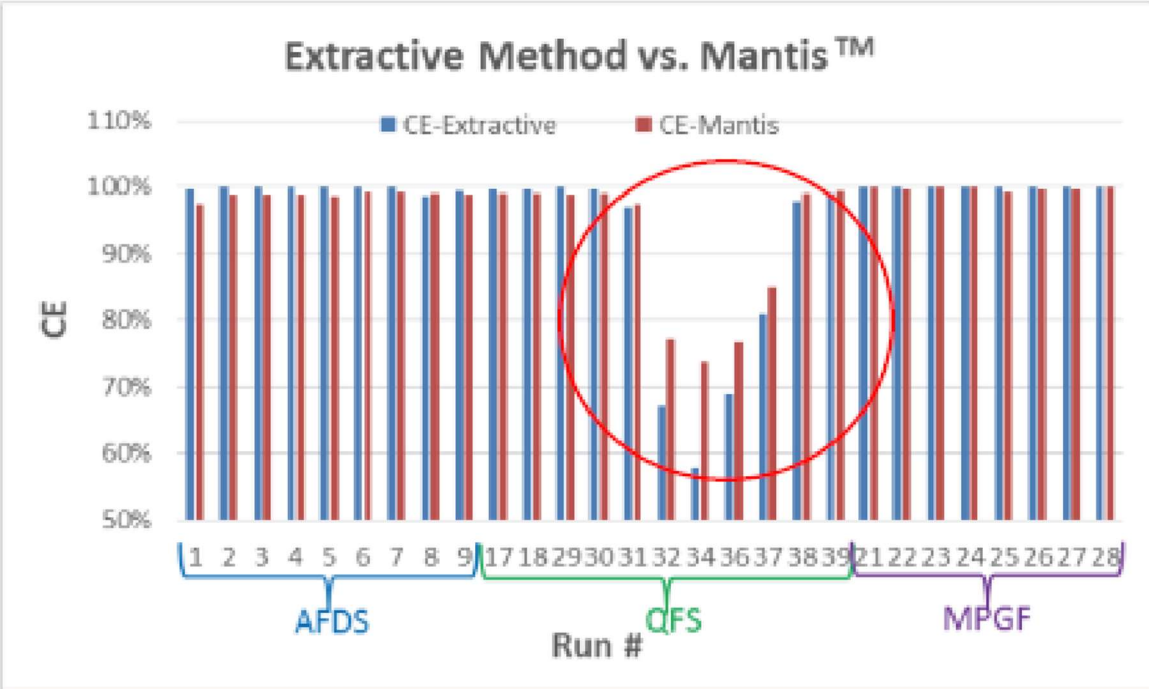
The Draft Order of Approval's Condition # 15 indicates that a destruction efficiency (DE) for VOC and HAP of 99% is only for "compounds up to 3 carbons." Presumably for all other compounds, the outlet concentration will be 10 ppm. First, as discussed in greater detail below, there is no support for the 99% DE that PSCAA assumes, even for molecules with 3 carbons or less. But, in any event, Condition # 15 makes the DE inapplicable to all VOCs and organic HAPs where those are larger molecules.

Perhaps more importantly, the suggested 10 ppm outlet concentration in Condition # 15 was not used in the emission calculations of VOCs and HAPs from the flare. The Engineering Review Worksheet (at pg. 44) confirms this via the following calculation: **Emission Factor (lb/MMcf) = [Gas Density (lb/cf)] x [VOC Content (wt%)] x [1 - Destruction Efficiency (%)] x [106 cf/MMcf]**. In other words, the emission calculations used the inlet VOC concentration and assumed DE of 99% in all instances. Thus, the 2017 emission calculations provided by PSE as well as page 44 of the Engineering Worksheet contradict Condition # 15 of the Draft Order of Approval (as well as pg. 27 of the Engineering Review Worksheet).

c. The assumed flare DE of 99% for VOCs and HAPs is (1) unsupported and (2) too high.

PSCAA's permitting analysis concerning the flare, the facility's largest emitting source, relies on the assumption that it will achieve a destruction efficiency of 99% under all conditions. It is well-established that flare DE (and combustion efficiency (CE), a closely related term) depends on many factors that cannot be controlled in actual operating conditions. In fact, the USEPA recently prepared a comprehensive technical review of flare emissions demonstrating that even

when flares have been tested under ideal conditions, destruction and combustion efficiencies can vary widely.[23] The chart below is excerpted from some controlled testing done on flares to compare CE using two techniques – extractive[24] sampling and Video Imaging Spectral Radiometry (VISR), using a product called MANTIS.[25]



As the chart shows CE (and by extension, DE, which closely tracks CE) can drop from high values to very low values (approximately 55% in this case) – even under controlled conditions. This matters a great deal when estimating a facility's emissions. Consider, as an example, a flare whose VOC emissions have been estimated to be 100 pounds per year using a DE of 99%. If that flare achieved a DE of 98% instead of 99%, VOC emissions from the flare double to 200 pounds per year. If the DE dropped to 95%, VOC emissions increase to 500 pounds per year, i.e., by a factor of five. To apprise PSCAA of the facility's **PTE**, the applicant should have used the lowest achievable DE in all cases, because that represents the maximum emissions rate from the flare.

Moreover, the flare monitoring data noted above demonstrates that PSCAA has no credible basis for concluding that even well-designed and well-operated flares can achieve 99% destruction efficiency in all circumstances. In assessing PTE, why does PSCAA hold the belief that the flare destruction efficiency will always be at least 99%, even with varying waste gas composition and

[23] https://www3.epa.gov/airtoxics/flare/2012flaretechreport.pdf

[24] https://www3.epa.gov/airtoxics/flare/2012flaretechreport.pdf

[25] https://www.providencephotonics.com/events

rapidly varying flow rates?[26] If PSCAA is wrong about this, it is grossly underestimating VOC emissions and associated emissions of HAPs.

The Draft Order of Approval's approach of simply assuming that destruction efficiency levels will always be 99% is neither realistic nor justified, particularly when robust technical reviews of flare performance indicate that achieving such rates is not feasible or consistently achievable with rapidly varying flow rates and waste gas compositions. Further, PSCAA's Draft Order of Approval fails to require direct and continuous testing at the inlet and at the flare stack to verify the flare's destruction efficiency is indeed 99% for VOCs and organic HAPs under all conditions. Simply requiring monitoring of temperature, as contemplated in the Order of Approval, is inadequate since DE does not correlate to just the temperature.

d. PSCAA has also underestimated the flare's emissions of non-VOCs.

This criticism includes, but is not limited to, the absence of support for the CB&I-provided factors and the misuse of AP-42 emission factors discussed above.

i. NOx and N2O

PSCAA's Engineering Review Worksheet states (at pg. 27) that, "PSE has decreased NOx to 0.066 lbs/MMBtu for the small burners and even further agreed to lower the large burners to 0.025 lbs/MMBtu…[.]" NOx emissions from combustion systems like flares depend, among other factors, on the nitrogen content of the combusted gases. The record concerning the Tacoma LNG facility contains no discussion of whether (or how) the nitrogen content in the waste gases (contemplated to be used as purge gas[27]) was incorporated into these new lower NOx levels.

There is no serious dispute that the facility's flare gases will consist of significant quantities of nitrogen. Combusting this nitrogen-rich flare gas will create significant quantities of NOx. However, the permitting record provides no indication that the NOx emission factors underlying PSCAA's analysis and preliminary determination reflect the high nitrogen levels in the gases to be burned. Again, as discussed in footnotes 15 and 26 above, PSCAA was unable to furnish the Tribe with estimates provided by the flare manufacturer underlying the Engineering Review Worksheet's statement (at pg. 44) that, "NOx emissions were estimated from the flare manufacturer based on the design and the amount of excess air combusted in the flare," confirming PSCAA did not vet (or even consider) those estimates in arriving at its preliminary determination.

[26] As discussed above, the Tribe asked for the basis supporting PSCAA's analysis, including certifications and/or guarantees from the flare manufacturer, that the flare will in fact achieve a certain level of destruction efficiency. From PSCAA's response, it either does not possess or is refusing to disclose whatever it possesses to substantiate its conclusions concerning the destruction efficiency the flare will achieve. Additionally, the ground flare specification is outdated and, thus, not properly relied upon, because it refers to a previous flare that was 45 feet tall with a diameter of 9 feet. Since the currently contemplated flare is 6 feet in diameter, for the same combustion exhaust gases, this means that the current flare will have a lower residence time and therefore a lower DE.

[27] *See, e.g.,* **Attachment # 4** (Braemer Report, Tacoma LNG Fire and Safety Review, July 2, 2018) at pp. 17, 51; *see also id*. at 22.

Additionally, combusting nitrogen-rich flare gas will not only create more NOx than what PSCAA's preliminary determination recognizes, but also will create significant quantities of N2O – a potent greenhouse gas with approximately 300 (or more) times the global warming potential of CO2.[28]

ii. PM 2.5

Because predicted modeled ambient impacts of PM 2.5 are right up against WAC 173-400-113 Table 4a's regulatory thresholds, it is critical that PSCAA's use of emission factors for PM 2.5 are fully supported and of good quality, which AP-42 is not.

iii. The Draft Order or Approval is defective with regard to HAPs and TAPs, because a first-tier ambient concentration screening analysis was performed before all HAPs and TAPs from the flare were properly estimated.

PSCAA's Engineering Review Worksheet (at pg. 45) states: "Benzene, toluene, ethylbenzene, and xylenes (BTEX) were based on composition of the waste gas and the 99% destruction efficiency of the flare." With regard to these HAPs or TAPs, the Supplemental Information that PSE provided to PSCAA on March 29, 2019 states:

> "[T]he first-tier ambient concentration screening analysis is summarized in Table 2. This screening analysis includes all toxic air pollutants (TAPs) with expected emission rates that exceed the small quantity emission rate (SQER). As shown in Table 2, the maximum modeled ambient concentrations for each TAP are less than their respective ASILs. As a result, no further modeling analysis is required."

[28] The Tribe pointed this out in its comments on the Draft SEIS (at pgs. 15-16), but PSCAA did not address the comment.

Table 2: Toxic Air Pollutant Modeling Results

Toxic Air Pollutant	Averaging Period	ASIL[a] (µg/m³)	Modeled Concentration[b] (µg/m³)				Scenario
			SEA	L+SEA	TCM	L+TCM	
7,12-Dimethylbenz(a)anthracene	Annual	1.41E-05	4.00E-08	4.00E-08	3.00E-08	3.00E-08	Liquefying Case 3
Ammonia	24-hour	70.8	1.1	1.1	1.2	1.2	Vaporizing + Transfer Case A2
Arsenic	Annual	3.03E-04	4.40E-07	4.40E-07	4.30E-07	4.30E-07	Liquefying Case 3
Cadmium	Annual	2.38E-04	2.41E-06	2.41E-06	2.34E-06	2.34E-06	Liquefying Case 3
Chromium(VI)	Annual	6.67E-06	3.07E-06	3.07E-06	2.98E-06	2.98E-06	Liquefying Case 3
Hydrogen sulfide	24-hour	2	0.021	0.021	0.021	0.021	Liquefying Case 1
Sulfur dioxide	1-hour	660	26	26	20	20	Liquefying Case 1

[a] WAC 173-460-150
[b] Highest first high value for all receptors.
SEA = Meteorology from SeaTac
L+SEA = Meteorology from Tacoma South L and SeaTac
TCM = Meteorology from McChord
L+TCM = Meteorology from Tacoma South L and McChord

The analysis submitted to PSCAA considered just 6 TAPs. Yet, as the emission calculations provided by PSE show, there are far more than 6 HAPs and TAPs that should be expected from the facility's flare and vaporizer. Further, AP-42 emission factors were utilized to estimate the facility's emissions of these pollutants, and those AP-42 emission factors have been rated to be of very poor quality. Given these shortcomings and attendant uncertainties regarding facility emissions, PSE and PSCAA should have properly conducted the first-tier ambient concentration analysis for all HAPs and TAPs emitted by the facility before screening them out to just the 6 in the above table relied upon by PSCAA in arriving at its preliminary determination.

4. PSCAA has also underestimated the facility's fugitive emissions (particularly its VOC emissions) in its preliminary decision to grant an Order of Approval.

The draft Order of Approval makes assumptions about the Leak Detection and Repair (LDAR) system that are unsupported, unrealistically optimistic, and result in the underestimation of fugitive emissions from the facility. On what basis does PSCAA conclude 75% is an appropriate number for the control efficiency for the LDAR program, particularly for purposes of assessing Tacoma LNG's PTE? Given the type of LDAR program being contemplated for Tacoma LNG and what is known of the track records of LDAR programs in general, the assumption is incredibly generous (and not at all conservative). This optimistic assumption biased in favor of the facility results in an underestimation of the facility's fugitive emissions. PSCAA should utilize a more reasonable (less optimistic figure), particularly for assessing the facility's potential to emit and reassess fugitive emissions from the facility.

First, CB&I provided the numbers of components that are sources of VOC leaks and fugitive emissions (like pumps, valves, connectors) with no supporting details. *See* Engineering

Review Worksheet at p. 46. Are these indeed accurate numbers of such components? How does PSCAA know?[29] Because the information on components goes to PSCAA's ability to accurately assess the facility's fugitive emissions, it goes to the legitimacy of PSCAA's permitting decision and should be substantiated.

Second, the emission factors used for estimating the VOC emissions are derived from a South Coast Air Quality Management District (SCAQMD) document for terminals/depot. *See* Engineering Review Worksheet at p. 46. Because these factors are not maximum values, they are not suitable for ascertaining the facility's PTE for fugitive emissions of VOCs. And by using average emission factors, PSE and PSCAA are underestimating the facility's fugitive VOC and associated HAP emissions from these sources.

Third, the TCEQ efficiencies (i.e., the proximate source of the assumed 75% efficiency for some categories of fugitive emission) that are used to incorporate the effectiveness of the LDAR program and further reduce the "uncontrolled" average emissions, were based on applying EPA emission factors and not SCAQMD emission factors. In other words, the calculations PSE submitted (and PSCAA's seeming acceptance of them as part of its preliminary determination) improperly mix and match emission factors and LDAR control efficiencies. None of the fugitive emission calculations relied upon by PSCAA in reaching its preliminary determination are reliable. PSCAA's assertion that the methodology used a "conservative" one is thoroughly incorrect. *See* Engineering Review Worksheet at p. 46.

A final issue regarding fugitive emissions is that the NOC record (and PSCAA's preliminary determination) includes no verification or audit provisions to ensure that the assumed emission factors of fugitive VOC leaks from various components are, in fact, correct or conservative.

5. The Order of Approval underestimates the facility's emissions by failing to consider, evaluate, or address emissions occurring during non-routine or accidental emissions.

A review of PSCAA's Engineering Review Worksheet shows that PSCAA's analysis only address routine emissions – such as from the vapor combustor, the flare, and fugitive leaks. PSCAA has not addressed the potentially very large emissions that would result from an accidental release or fire/explosion from this facility – an inherent risk (and one that is acknowledged in the FEIS). The emissions from such a scenario would be extremely large.

Even if PSCAA takes the view that it is not required to consider emissions from a catastrophic event, the fact remains that PSCAA does not even look at emissions associated with the 10-minute release scenarios. None of the PSCAA emissions documents or analyses submitted by PSE include the emissions associated with such less-than-10-minute releases, which are simply assumed to occur in the safety analyses before mitigation measures and actions kick-in. This shows a significant disconnect between the safety analyses and the Draft Order of Approval. As a result of excluding such emissions, PSCAA's Draft Order of Approval underestimates emissions from the facility.

[29] For example, it seems strange that the facility will only have one relief valve. *See* Engineering Review Worksheet at p. 46. Likewise, the indication of just a single pump in light liquid service seems implausible.

6. The Draft Order of Approval's conditions are vague, deficient, ineffectual and, in many cases, unenforceable.

PSCAA's draft Order of Approval contains numerous conditions that are undefined and/or unenforceable. Some key examples are provided below.

a. Example 1 – Key Terms in the Draft Order of Approval Are Not Defined

The draft Order of Approval does not define critical terms, undermining its enforceability. By way of example and not limitation, PSCAA's draft Order of Approval does not define the following key terms: "startup" (Condition 3, Condition 7, Condition 29, Condition 32); "malfunction" (Condition 11, Condition 28, Condition 29, Condition 30); "shutdown" (Condition 28, Condition 29, Condition 30); "flare stack combustion zone" (Condition 12(d)).

b. Example 2 – Draft Order of Approval Condition # 40 is inadequate

One of PSCAA's bedrock assumptions for its preliminary permitting decision is that all of the facility's natural gas will originate from Canada. PSCAA seeks to effectuate this sole-source scenario by way of Condition # 40 in the draft Order of Approval. Condition # 40 is illusory, however, because it does not (and cannot) address the myriad ways in which natural gas is currently (let alone for the next forty years) injected into and travels through inter-state and inter-national pipelines. How will PSCAA know that the gas coming into the facility is from BC or Alberta? Who is monitoring this? How is it being monitored? And what is PSCAA going to do when it learns PSE is getting the gas from another geographic area?

Condition # 40, as written, relies on unspecified "monthly records" to track natural gas from the Huntingdon British Columbia Pool / Sumas interconnect with the Northwest Pipeline, through Frederickson, and down to Tacoma. This pathway, however, is not the only way that gas can will be able to reach the Tacoma LNG facility over the next 40 years. This underlying assumption is overly- simplistic and, as a practical matter, Condition # 40 is ineffectual. As written, Condition 40 assumes that gas enters Washington at Sumas. However, Canadian gas today can also enter the US at Eastport, Idaho, per the US Energy Information Administration (EIA).[30] In addition, it is also possible that US-generated natural gas can flow to Canada and back into the US. Without first establishing that the assumed gas path is the only gas path to Tacoma LNG, Condition # 40's requiring unspecified "records" does not achieve PSCAA's intended outcome.[31]

[30] https://www.eia.gov/dnav/ng/ng_move_poe1_a_EPG0_IRP_Mmcf_a.htm

[31] The Tribe will add that even if Condition # 40 were enforceable, exclusive use of BC gas for this project would merely result in fuel shuffling because nothing in the condition prevents PSE from substituting non-Canadian natural gas for other PSE projects that currently use it.

c. Example 3 – Insufficient BACT Predicated on "Good Combustion Practices"

PSCAA's Engineering Review Worksheet[32] indicates that the Best Available Control Technology (BACT) for most of the pollutants from the vaporizer and flare rely on unspecified and unenforceable "good combustion practices."

Table C-1: Proposed BACT for the Vaporizer

Pollutant	Control Technology	BACT Limit
NO_x	Good Combustion Practices/Low or Ultra-Low NO_x Burners	12 lb/MMcf
CO	Good Combustion Practices	40 lb/MMcf
PM, PM_{10}, $PM_{2.5}$	Good Combustion Practices, Fuel Selection	7.6 lb/MMcf
VOCs	Good Combustion Practices	5.5 lb/MMcf
SO_2	Good Combustion Practices, Fuel Selection	15 lb/MMcf
TAPs	Good Combustion Practices	5.7 lb/MMcf

Table C-2: Proposed BACT for the Flare

Pollutant	Control Technology	BACT Limit
NO_x	Good Combustion Practices/Low NO_x Burners	0.06 lb/MMBtu
CO	Good Combustion Practices	0.2 lb/MMBtu
PM, PM_{10}, $PM_{2.5}$	Good Combustion Practices	0.0075 lb/MMBtu
VOCs	Good Combustion Practices	Flare designed to achieve a destruction efficiency of at least 99% for compounds up to 3 carbons.
SO_2	Good Combustion Practices	165 lb/MMscf
TAPs	Good Combustion Practices	0.37 lb/MMBtu

"Good Combustion Practices" is too vague and amorphous to be enforceable (or have any regulatory meaning). The problem is exacerbated by the fact that PSCAA's draft Order of Approval only requires sporadic, infrequent testing.[33] Accordingly, PSCAA cannot credibly conclude that the BACT Limits it purports to impose will be met on a continuous basis.

[32] Table C-2 is from pg. 17 of PSCAA's Engineering Review Worksheet. The applicant furnished PSCAA with Table C-1 on March 29, 2019, but the table was not included in PSCAA's Engineering Review Worksheet. Nevertheless, the Engineering Review Worksheet appears to reflect that "Good Combustion Practices" will also constitute BACT for the vaporizer emission source.

[33] Condition 12(d) for the flare for continuous temperature measurement provides no value for emissions of NOx, PM/PM10/PM2.5 or SO2.

H. AS A RESULT OF THE FOREGOING ERRORS IN EMISSION ESTIMATIONS, PSCAA LIKELY ERRONEOUSLY CONCLUDED THAT TACOMA LNG IS NOT A MAJOR SOURCE FOR ONE OR MORE POLLUTANTS.

The foregoing errors in estimating the facility's emissions, individually and in the aggregate, have resulted in a significant underestimation of those emissions. Correcting these errors and performing a proper analysis of the facility's emissions may very well yield that the facility is a major source of VOCs and perhaps other air pollutants, requiring PSCAA to undertake a more robust permitting review and analysis of the facility.

I. WAC 173-400-113 APPLIES AND APPEARS TO BE MET ONLY BECAUSE PSCAA USES MISLEADING EMISSION FACTORS AND ERRONEOUS/UNSUBSTANTIATED ASSUMPTIONS CONCERNING THE FLARE'S DESTRUCTION EFFICIENCY.

The results of PSE's most recent modeling performed in connection with its NOC Application (which were submitted to PSCAA on March 29, 2019) are set out in the following table:

Criteria Pollutant	Averaging Period	NAAQS/ WAAQS ($\mu g/m^3$)	Threshold Value[a] ($\mu g/m^3$)	Modeled Concentration[b] ($\mu g/m^3$)				Scenario
				SEA	L+SEA	TCM	L+TCM	
CO	8-hour	10,000	500	11	10	10	10	Vaporizing + Transfer Case B
	1-hour	40,000	2,000	25	25	25	25	Vaporizing + Transfer Case A2
SO_2	Annual	52	1	0.35	0.35	0.35	0.35	Liquefying Case 1
	24-hour	260	5	3.9	3.9	3.9	3.9	Liquefying Case 1
	3-hour	1,310	25	12	12	10	10	Liquefying Case 1
	1-hour	200	30	26	26	20	20	Liquefying Case 1
PM_{10}	Annual	--	1	0.017	0.017	0.016	0.016	Liquefying Case 3
	24-hour	150	5	1.2	1.2	1.1	1.1	Vaporizing + Transfer Case A2
$PM_{2.5}$	Annual	12	0.3	0.017	0.017	0.016	0.016	Liquefying Case 3
	24-hour	35	1.2	1.2	1.2	1.1	1.1	Vaporizing + Transfer Case A2
NO_2	Annual	100	1	0.043	0.043	0.042	0.042	Liquefying Case 2
	1-hour	188	7.5	5.9	5.9	5.9	5.9	Vaporizing + Transfer Case A2

[a] Cause or contribute threshold value from WAC 173-400-113, Table 4a. So long as the estimated worst case emissions are less than or equal to the threshold value, a facility is not considered to cause or contribute to an exceedance in a nonattainment area. The 1-hour NO_2 threshold value reflects the EPA's Interim 1-hour NO_2 Significant Impact Level.

[b] Highest first high value for all receptors.

SEA = Meteorology from SeaTac

L+SEA = Meteorology from Tacoma South L and SeaTac

TCM = Meteorology from McChord

L+TCM = Meteorology from Tacoma South L and McChord

The specific pollutant/averaging period combinations that are at or very close to the respective Threshold Values, in the fourth column from the left. The 24-hour PM2.5 impacts are

at the Threshold Value for all meteorological data combinations. Others shown in highlights above are only slightly below the Threshold Values.

As a preliminary matter, PSCAA appears to take the position that WAC 173-400-113 is not relevant to PSCAA's permitting decision. *See* Engineering Worksheet at p. 56. If that is indeed PSCAA's position, PSCAA is incorrect – WAC 173-400-113 applies to the emissions of criteria pollutants from the Tacoma LNG facility; meeting the thresholds in Table 4a is not inconsequential, as PSCAA seems to suggest.

Next, the impacts from facility emissions (i.e., their Potential-to-Emit, PTE) are not adequately analyzed, and a number of WAC 173-400-113's thresholds appear to be met only because, as discussed above, PSCAA is using misleading emission factors and unsubstantiated (perhaps erroneous) assumptions concerning the flare's destruction efficiency.[34] With one small change in those assumptions, WAC 173-400-113's thresholds likely are not met for a number of criteria pollutants. Further, if inputs that are more accurate and/or more consistent with a true assessment of the facility's potential to emit, the facility may well be legally characterized as major source of volatile organize compounds (VOCs) many of which cause cancer in humans and animals.

J. THE DRAFT ORDER OF APPROVAL INCORRECTLY FAILS TO INCLUDE THE REQUIREMENTS OF NSPS SUBPART LLL RELATING TO THE HANDLING OF ACID GAS FROM THE FACILITY.

The Draft Order of Approval's failure to apply the requirements of NSPS Subpart LLL relating to the handling of acid gas to Tacoma LNG appear predicated on the Engineering Worksheet's incorrect conclusion (at pg. 60) that, "***The Tacoma LNG Project is not a natural gas processing facility. Therefore, the requirements of NSPS Subpart LLL are not applicable***."

Subpart LLL applies to sweetening units, which are processes that separate H2S from CO2 from a sour natural gas stream. 40 C.F.R. §§ 60.640(a), 60.641. PSE acknowledges that it would be separating H2S and CO2 from the feed gas it receives via pipeline. *See* NOC § 2.1.1. This process constitutes a sweetening unit, as PSE acknowledges in NOC § 3.4.3.

From PSCAA's Engineering Worksheet (at pg. 60), its notion that Subpart LLL does not apply to the sweetening unit appears to be based on 40 C.F.R. § 60.640(a), which says "The provisions of this subpart are applicable to the following affected **facilities that process natural gas**: each sweetening unit, and each sweetening unit followed by a sulfur recovery unit."

Notably, "Facilities that process natural gas" are not defined in Subpart LLL or in Part 60 of 40 C.F.R. generally. However, Subpart KKK defines a "natural gas processing plant" as "any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both." 40 C.F.R. § 60.631. "Natural gas liquids means the hydrocarbons, such as ethane, propane, butane, and pentane, that are extracted

[34] The aforementioned issues concerning the meteorological likewise bear on whether the facility's emissions comply with Table 4a's thresholds.

from field gas." *Id*. "Field gas means feedstock gas entering the natural gas processing plant." *Id*. "Feedstock gas" is not defined in this or any other regulation. However, FERC's 2005 "White Paper on Natural Gas Interchangeability and Non-Combustion End Use" indicates that LNG peak shaving liquification plants utilize regasified LNG as a "feedstock." FERC White Paper, § 3.4.3.[35]

If, as FERC indicates, regasified LNG constitutes a "feedstock" for a peak shaving LNG plant, then the Tacoma LNG facility is indeed a "facility that processes natural gas" by virtue of its amine unit that extracts natural gas liquids from the facility's feedstock pipeline. That Tacoma LNG facility is a "facility that processes natural gas" is further established by the NOC application's following statement:

> The LNG Facility would receive natural gas from Williams Northwest Pipeline via PSE's distribution system, ***process and*** liquefy (chill) the natural gas to produce up to 250,000 gallons of fuel-grade (to satisfy PSE's supply agreement with TOTE) LNG per day and store up to 8 million gallons of LNG on site.

NOC Application at § 2.0 (emphasis added).

In sum, despite PSE's attempts to evade Subpart LLL, it applies and requires PSE to verify that it is reducing the SO2 content of the acid gas separated out from the sweet gas emerging from the sweetener. 40 C.F.R. § 60.642.

K. THE DRAFT ORDER OF APPROVAL INCORRECTLY FAILS TO INCLUDE A REQUIREMENT THAT THE TACOMA LNG FACILITY MONITOR AND CONTROL FUGITIVE GHG AND VOC EMISSIONS IN ACCORDANCE WITH SUBPART OOOOa.

The Draft Order of Approval fails to require the Tacoma LNG facility to comply with the VOC and GHG monitoring and control requirements in Subpart OOOOa. This failure appears predicated on the Engineering Review Worksheet's incorrect conclusion (at pg. 61) that, "***Subpart OOOOa applies from natural gas wellhead to immediately upstream of the local distribution company custody transfer station. The Tacoma LNG Project is situated downstream of the local distribution company (i.e., PSE) custody transfer station. Therefore, NSPA Subpart OOOOa is not applicable to the Tacoma LNG Project***."

PSCAA's Engineering Worksheet appears to base the above-quoted conclusion on the definition of "**natural gas source category**: Natural gas production, processing, transmission, and storage, which include the well and extend to, but do not include, the **local distribution company custody transfer station**." 40 C.F.R. § 60.5430a (emphasis added). PSCAA's viewpoint is that Tacoma LNG is downstream of the local distribution company custody transfer station and, therefore, is not a natural gas source category (so Subpart OOOOa "is not applicable").

There are two problems with PSCAA's viewpoint. ***First***, a local distribution company (LDC) custody transfer station is defined as "a metering station where the LDC receives a natural

[35] Available at: https://www.ferc.gov/eventcalendar/Files/20050316082958-interchangeability.pdf .

gas supply from an upstream supplier, which may be an interstate transmission pipeline or a local natural gas producer, for delivery to customers through the LDC's intrastate transmission or distribution lines." Although Tacoma LNG will be distributing natural gas through its intrastate transmission and/or distribution lines, it will also be bunkering LNG on TOTE's ships and – according to PSCAA's own SEIS – loading LNG onto barges. The transport of bulk LNG has not traditionally been considered "local distribution," because LNG must be regasified before it can be used. *See Wash. Gas Light Co. v. FERC*, 532 F.3d 928, 929 n. 1 (D.C. Cir. 2008) (*dicta*) ("LNG is natural gas that has been supercooled into liquid form, reheated back into gas form at **natural gas terminals** like Cove Point, and then shipped to customers through **local distribution companies** like WGL."). Given this definition, Tacoma LNG is not a local distribution company transfer station for the reason that it does far more than just distribute natural gas to customers through transmission or distribution lines.

Second, even assuming that Tacoma LNG is a local distribution company custody transfer station (and, therefore, not a natural gas source category), that does not appear to exclude it from Subpart OOOOa. Subpart OOOOa's preamble states that the purpose of the subpart is to establish emissions standards and compliance schedules for GHGs and VOCs "from affected facilities in the natural gas source category" that commence construction after September 18, 2015. 40 C.F.R. § 60.5360a. But significantly, the subpart then goes on to list all **affected facilities** in its next section, titled "Am I subject to this subpart?" 40 C.F.R. § 60.5365a. Based on PSCAA's record, two of these listed affected facilities exist at the Tacoma LNG terminal:

- One of the affected facilities listed in this section is a "process unit," meaning "components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products." 40 C.F.R. § 60.5430. Here, the Tacoma LNG facility's amine unit is designed to separate natural gas liquids from the incoming gas pipeline. Because the gas in this incoming gas pipeline is properly characterized as "field gas" (meaning a feedstock gas), the amine unit is a process unit and, thus, subject to Subpart OOOOa.

- A second subject facility is a "sweetening unit." By PSE's own admission, the Tacoma LNG facility's amine unit could be considered a sweetening unit,[36] placing the amine unit under Subpart OOOOa.

In sum, the amine unit is either a process unit, a sweetning unit, or both, and therefore is subject to Subpart OOOOa relating to monitoring and controlling fugitive GHG and VOC emissions.

L. THE DRAFT ORDER OF APPROVAL INCORRECTLY ADDRESSES THE NESHAP RULES ON MARINE TANK VESSEL LOADING OPERATIONS.

The Draft Order of Approval fails to require the Tacoma LNG to comply with the NESHAP rules on Marine Vessel Loading Operations. This failure appears to be predicated on the

[36] *See, e.g.*, NOC Application (May 22, 2017) at § 3.4.3 ("The Tacoma LNG Project design includes an amine unit that could be considered a sweetening unit under Subpart LLL").

Engineering Worksheet's view (at pg. 62) that, "The Tacoma LNG Project will only be fueling vessels, not filling tank ships or tank barges that transport bulk LNG."

Notably, this espoused view of PSCAA is directly contradicted by page 1 of the FEIS, which states that bunkering LNG onto barges will occur in the Hylebos and Blair waterways. That LNG will be bulk loaded onto marine tank vessels is also indicated throughout PSCAA's own SEIS. *See, e.g*., SEIS § 2.3.5 ("LNG may also be supplied to bunker vessels for subsequent transfer to ships.").

If PSCAA issues an Order of Approval for Tacoma LNG, that Order should clearly state that PSE is not permitted to bunker LNG onto barges for transport. Otherwise, the Order of Approval (if issued) should assure PSE complies with the emissions standards for marine tank vessel loading operations in Subpart Y, which requires the facility to conduct monitoring and reporting for fugitive VOCs if the facility emits less than 10 tons per year of HAPs. 40 C.F.R. § 560(a)-(b). If PSCAA ultimately concludes Tacoma LNG emits more than 10 tons per year of HAPs, then PSCAA should also impose emissions control technology requirements on Tacoma LNG.

M. THE DRAFT ORDER OF APPROVAL IMPROPERLY FAILS TO REQUIRE PSE TO SUBMIT A RISK MANAGEMENT PLAN AND OTHER HAZARD MANAGEMENT PLANS AS REQUIRED UNDER 40 C.F.R. PART 68.

A facility operator must prepare a risk management plan and file various other hazard management plans, if the facility is a "stationary source" that contains more than a certain threshold of certain chemicals. 40 C.F.R. § 68.10. The term stationary source is defined differently for purposes of chemical accident prevention than it is for purposes of the NSPS and NESAHP rules. For purposes of chemical accident prevention, "the term stationary source does not apply to transportation, including **storage incident to transportation**, of any regulated substance." 40 C.F.R. § 68.3 (emphasis added).

EPA clarified the "transportation exemption" in 1998, when it published the following in the Federal Register regarding the transportation exemption's applicability to LNG:

> The transportation exemption also applies to liquefied natural gas (LNG) facilities subject to oversight or regulation under **49 CFR parts 192, 193, or 195**, or a state natural gas or hazardous liquid program for which the state has in effect a certification to DOT under 49 U.S.C. section 60105. These facilities include those used to liquefy natural or synthetic gas or used to **transfer, store, or vaporize LNG in conjunction with pipeline transportation**.

63 Fed. Reg. 642, Jan. 6, 1998 (emphasis added).

PSE correctly states that the Tacoma LNG facility will be subject to 49 C.F.R. Part 193, but then uses this to contend that it may invoke the transportation exemption. *See* NOC Application at § 3.7. PSE urges this exemption despite the fact that the facility is being sited in a populated area, where it can do significant harm people and property located in the vicinity. In failing to require PSE to prepare a risk management plan and file various other hazard management plans,

PSCAA apparently agrees with PSE. The Tribe is exceedingly concerned that PSCAA seems to be acquiescing in PSE's attempts to cut corners on critical matters of safety.

However, 49 C.F.R. Part 193 applies only to "LNG facilities," meaning "a **pipeline facility** that is used for liquefying natural gas or synthetic gas or transferring, storing, or vaporizing liquefied natural gas." 49 C.F.R. § 193.2001. Part 193 explicitly does not apply: "In the case of a **marine cargo transfer system** and associated facilities, any matter other than siting pertaining to the system or facilities between the marine vessel and the last manifold (or in the absence of a manifold, the last valve) located immediately before a storage tank." 49 C.F.R. § 193.2001(b)(3).

While Tacoma LNG will be storing LNG for use during peak shaving, the facility will also be fueling and/or bunkering ships (the facility will either (1) load LNG onto TOTE's ships to be used as a fuel or (2) load barges for transport and/or bunkering elsewhere). This use of LNG as a marine cargo is explicitly outside the scope of 49 C.F.R. Part 193. And transferring LNG as cargo does not use pipelines to transport LNG; rather, it uses ships or barges to transport LNG.

In sum, Tacoma LNG produces LNG having an end use that is not subject to the transportation exemption for pipelines. Accordingly, PSE should be required to file all risk management and hazard management plans required under 40 C.F.R. 68.

N. IT APPEARS IMPACT LEVELS FOR BENZENE HAVE NOT BEEN MODELED, AND PSCAA HAS PROVIDED NOTHING EXPLAINING WHY PREDICTED BENZENE LEVELS CHANGED SO MUCH FOLLOWING PSE's MAY 2017 SUBMISSION.

PSE's June 22, 2017 submission provided that the facility's benzene emission rate is 56 lbs. per year, which is significantly higher than the small quantity emission rate of 6.62 lbs. per year. Yet, PSE did not provide modeling pertaining to benzene in its June 22 submission.

In PSE's subsequent September 15, 2017 submission to PSCAA, it claimed that benzene emissions would be 0.66 lbs. per year – a reduction of almost 99% from the figure provided to PSCAA on June 22. There is no explanation regarding the source of the original 56 lbs. nor of the basis for reducing it to 0.66 lbs. in September. In pg. 52, it appears PSCAA carried forward the new and subsequently reduced figure of 0.66 lbs. per year, again without any explanation of how the numbers were derived.

Benzene should be modeled in accordance with WAC 173-460. If PSCAA decides not to require this modeling, PSCAA should explain why the predicted benzene levels changed so drastically between PSE's June 22, 2017 submission, and its September 15, 2017 submission.

O. THE PERMITTING RECORD CONTAINS NOTHING BACKING UP PSE'S ASSERTION THAT THE LNG STORAGE TANK WOULD STORE GASES AT A PRESSURE LOWER THAN 3.5 kPa.

PSE claims that its 8-million-gallon LNG storage tank would store gasses at a pressure lower than 3.5 kPa, the threshold above which the storage tank would be considered an emissions unit. *See* NOC Application at § 3.4.2.1. Has PSCAA concluded that PSE's representation on this

point is true? And if so, on what basis? Notably, PSE's NOC application does not ever state (much less offer proof establishing) what pressure the gasses in the tank would maintain.[37]

P. THE OPERATION OF THE FACILITY (AND THUS THE DRAFT ORDER OF APPROVAL) DOES NOT COMPORT WITH ENVIRONMENTAL JUSTICE, WARRANTING PSCAA'S USE OF ITS SUBSTANTIVE SEPA AUTHORITY TO DENY THE ORDER OF APPROVAL.

The purpose of Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," is to prevent or reduce the disproportionately high pollution burden on racial minority and low-income populations. The EPA additionally developed the "Environmental Justice Implementation Plan," which sets out a strategy for integrating environmental justice in regulatory review of permits and other activities pursued through compliance assurance and enforcement. EPA, Environmental Justice Implementation Plan, EPA/300-R-96-004, April 1996. In the context of EPA's regulatory function, the goal of the Environmental Justice Implementation Plan is to,

> Ensure that EPA's enforcement and compliance assurance activities include a focus on minority communities and low-income communities which suffer from disproportionately high and adverse human health and environmental effects. *Id*. at 16.

It is notable that prior to EO 12898, the EPA published "Environmental Equity: Reducing Risk for All Communities," which explained how provisions of the 1990 Clean Air Act Amendments, in addition to other environmental statutes, served as tools for protecting racial minority and low-income communities that were "surrounded by multiple sources of air pollution" and other serious environmental health risks. EPA, Environmental Equity: Reducing Risk for All Communities, EPA230-R-92-008A, Volume 2, June 1992, p. 1. The report was based on health studies that identified racial minority and low-income individuals as being sensitive to the adverse health effects of air pollution and several demographic analyses on the concentration of air pollutants in predominantly racial minority and poor communities. *Id*. at 21. The report identifies and analyzes key environmental laws that govern permit issuance and enforcement as a means to target environmental protection on "problems [that] pose the greatest risks nationwide to human health and the environment." *Id*. at 1.

Pursuant to this environmental protection strategy, EPA set a priority for protecting racial minority and low-income communities that are disproportionately burdened with the adverse environmental and health effects of pollution.

[37] Furthermore, the NOC indicates that when LNG in the tank is heated for transport, "vapors are created from the boiling liquid." *See* NOC Application at § 2.1.4.

1. Information Specific to the Tacoma Tideflats and the Environmental Burdens Faced by Tribe

Clearly, the EPA acknowledges the vital necessity of protecting communities like the Puyallup Reservation as part of its mission to ensure environmental protection for all people by focusing those who are the most vulnerable to pollution. As a recipient of EPA financial assistance, the programs and activities of PSCAA, including its issuance of an Order of Approval for the Tacoma LNG facility under the Clean Air Act, are subject to the requirements of Title VI of the Civil Rights Act and EPA's implementing regulations (including 40 CFR 7.35).

Beyond Title VI,[38] PSCAA has recognized that avoiding environmental injustices ***is part of its mandate***. In its report on "Highly Impacted Communities" within its jurisdiction, PSCAA stated:

> "The Puget Sound Clean Air Agency's mandate includes guidance from the 2014-2020 Strategic Plan. ***In objective 1.6 of this plan, we articulate the vision for everyone in our region to be able to breathe clean air, regardless of where they live or their socio-economic status. Our goal is to ensure that no community in our region bear disproportionate burdens and exposure from air pollution***."

(Emphasis added).

On information and belief, PSCAA's 2014-2020 strategic plan (identified in the preceding paragraph) remains its current one. PSCAA's report on Highly Impacted Communities continues:

> "In efforts to move forward with strategic plan elements in Objective 1.6 as well as other objectives involving equity and environmental justice, we recognize the need to clearly define and articulate where the risks and impacts are greatest in our jurisdiction. We want to understand where these communities are and what considerations or challenges might be part of air quality solutions, among other concerns the communities may have."

Page 19 (fig. 10) of that PSCAA report provides a map of the most impacted areas in Pierce County. In it, PSCAA itself recognizes the area affected by the LNG facility's emissions as being among the most impacted. That map also indicates PSCAA's recognition that the Puyallup Tribe's members living on its reservation breathe among the highest levels of air pollution in Pierce County.[39]

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[38] The Tribe has very serious concerns regarding the manner in which PSCAA is carrying out the regulatory charge delegated to it, including but not limited to PSCAA's refusal to meaningfully consult with the Tribe. The Tribe reserves all rights, including its right to file a Title VI Complaint with the United States Environmental Protection Agency.

[39] *See* https://www.pscleanair.org/DocumentCenter/View/3207/HI-C-Report---Final?bidId= (at pg. 19, Figure 10).

Additionally, environmental health disparity tools, including EPA's EJSCREEN[40] and the Washington State Department of Health's Environmental Health Disparities Map[41], indicate the population located near the Tacoma LNG facility – including the Puyallup Tribe – suffer disproportionately high environmental burdens. However, no government entity has studied the health impacts of these disproportionate exposures on the tribal population.

2. The Tacoma LNG Facility constitutes an additional source of toxic air pollution to an area that already bears a disproportionately high level of pollution.

Despite the fact that the Puyallup Tribe and others in the immediate vicinity of the Tacoma LNG facility already bear a disproportionately high level of pollution, including air pollution (industrial and otherwise), PSE has sought government authorization to construct a liquefied natural gas facility that includes a 8-million gallon tank for storing explosive materials, vaporizers and flares on over thirty (30) acres of land located on the Reservation's border. As discussed above, PSCAA has grossly underestimated the facility's emissions, and issuance of the Order of Approval will add significantly to the burden already borne by those within the immediate airshed of the Tacoma LNG facility, including the Puyallup Tribe, with increased levels of pollution and increased health and environmental risks.

Specifically, the permit application itself establishes that a host of Toxic Air Pollutants (TAPs) and Hazardous Air Pollutants (HAPs) that will be emitted from the facility, including the following pollutants that will be emitted above de minimis levels: **7,12-Dimethylbenz(a)anthracene[42]; Benzene[43]; Formaldehyde[44]; Hydrogen sulfide[45]; Arsenic[46]; Beryllium[47]; Cadmium[48]; Manganese[49]; Vanadium[50]; Carbon monoxide[51]; Nitrogen dioxide[52]; Sulfur dioxide**.[53] These are chemicals of great concern because of their known or suspected toxic effects on humans. Many are carcinogenic, some are mutagenic or teratogenic,

[40] https://ejscreen.epa.gov/mapper/

[41] https://www.doh.wa.gov/DataandStatisticalReports/EnvironmentalHealth/WashingtonTrackingNetworkWTN/InformationbyLocation/WashingtonEnvironmentalHealthDisparitiesMap

[42] CAS No. 57976; listed as a TAP at WAC 173-460-150.

[43] CAS No. 71432; listed as a HAP at 42 U.S.C. 7412.

[44] CAS No. 500000; listed as a HAP at 42 U.S.C. 7412.

[45] Potentially a HAP. *See* 42 U.S.C. 7412(n)(5). Identified as a TAP at WAC 173-460-150.

[46] Identified as a HAP at 7412(b)(1).

[47] Identified as a HAP in table at 7412(b)(1).

[48] Identified as a HAP in table at 7412(b)(1).

[49] Identified as a HAP in table at 7412(b)(1).

[50] Identified as a TAP at WAC 173-460-150.

[51] CAS No. 630080; identified as a TAP at WAC 173-460-150.

[52] CAS No. 10102440; identified as a TAP at WAC 173-460-150.

[53] CAS No. 74460905; identified as a TAP at WAC 173-460-150.

and most can have toxic effects on the respiratory system, the skin, and other vital organs.[54] [55]

As discussed above, vetting PSE's application and PSCAA's Engineering Worksheet shows both entities grossly underestimate the facility's emissions of criteria pollutants, HAPs and TAPs. But whatever the facility's true emissions amounts, there can be no serious dispute that the Tacoma LNG facility will represent an increase in a number of pollutants to Washington's air. Yet these contaminants will not be spread out throughout the state; they will be confined to the area near the Tacoma LNG facility, including the Puyallup Tribe's Reservation.

This constitutes an addition of too much additional air pollution to an area that bears a disproportionately high level of industrial pollution from existing facilities. In other words, the granting of these permits, for this facility in this location constitutes an instance of disparate impact discrimination. This fact was recently recognized by the Tacoma Human Rights Commission (THRC) in a letter seeking a Supplemental Environmental Impact Statement focusing on "the potential environmental hazards and human-rights injustices to vulnerable, frequently marginalized populations in and near the [Tacoma] Tideflats area." ***See* Attachment # 5 (Tacoma Human Rights Commission letter, dated April 18, 2019) at p. 6**. [56]

The environmental justice issues brought about by the facility mandate that PSE go beyond the requirements of the CAA in controlling HAP and TAP emissions from the facility. Many of the chemicals the Tacoma LNG facility will emit into the Tribe's airshed are persistent and bioaccumulative and, therefore, would remain in the environment for generations and accumulate through the food chain. This poses a danger to tribal food sources and cultural practices.

Based on the foregoing, approval of the Project is not only inconsistent with PSCAA's environmental justice mandates but also with the following substantive SEPA policies set forth in Section 2.12 of PSCAA's Regulation I:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

- Ensure for all people of Washington, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

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[54] Indeed, the toxic chemicals that PSE plans to release have been termed "hazardous air pollutants" by Congress, 42 U.S.C. § 7412(b)(1), and have been determined by peer-reviewed scientific studies to be carcinogenic and otherwise damaging to humans.

[55] Additionally, as to safety, the Washington State Department of Health's Environmental Health Disparities Map's "Proximity to Risk Management Plan Facilities" tool indicates the Tribe's reservation is already disproportionately exposed to environmental risks. In fact, the geographic area making up the Tribe's Reservation ranks at the top of the tool's exposure risk scale (10 out of 10). *See* https://fortress.wa.gov/doh/wtn/WTNIBL/ .

[56] The THRC is an arm of the City of Tacoma created to "study and investigate problems of prejudice, bigotry, and discrimination and to encourage and coordinate the implementation of programs consistent with the needs and the rights of all residents of the City of Tacoma." https://www.cityoftacoma.org/government/committees_boards_commissions/human_rights_commission/ .

- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- Maintain, wherever possible, an environment that supports diversity and variety of individual choice; and

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

Accordingly, PSCAA should deny approval of the Project pursuant to its substantive SEPA authority.

3. Given the Environmental Justice problems that the Tacoma LNG Facility presents, a Health Impact Assessment should be completed before PSCAA makes a final decision to grant PSE an Order of Approval for Tacoma LNG.

The FEIS itself for Tacoma LNG indicates the Facility will have significant adverse impacts in the form of Toxic Air Pollutants being added to the airshed that the facility shares with the Tribe (and others). *See, e.g.*, FEIS pgs. 3.2-10 to 3.2-12. The FEIS also makes clear that toxic emissions from the facility cannot be avoided or eliminated.

Nonetheless, the EIS does not assess the toxic effects, human health risks, or cancer risks that these emissions present. As such, the Tribe respectfully requests that a Health Impact Assessment (HIA) be performed – preferably as part of a SEIS analyzing the risks the Facility poses to health and safety to ascertain whether Facility's impacts will be sufficiently benign to protect human health and safety from carcinogenic and other toxic effects.

A HIA is a process that helps support the required review and analysis of potential health effects of a plan, project, or policy before it is built or implemented. A HIA can provide mitigation and higher-level policy recommendations that may increase positive health outcomes and minimize adverse health outcomes. A HIA is a public health tool that uses available technical and scientific information to help communities understand how plans, projects, and policies affect their health. These studies can also explain how to maximize the likely health benefits and minimize the potential harms of a given project, plan, or policy. Both SEPA and the National Environmental Policy Act (NEPA) (40 CFR 1508) call for the review and analysis of the direct, indirect, or long-term impacts of a proposed project on public health and safety as well as other factors. Indeed, a main stated purpose of SEPA is to support the health and welfare of human beings. RCW 43.21C.010.

HIAs are routinely performed after the issuance of an EIS. For example, on November 27, 2018, Cowlitz County and the Washington State Department of Health issued a Health Impact Assessment for the Millennium Bulk Terminal–Longview, outlining the health effects that proposal would have on the residents of Longview, Cowlitz County. Notably, the EIS for the Millennium Bulk Terminal included a modeled cancer risk rate for new emissions associated with the facility but a HIA was still performed. The EIS for Tacoma LNG, in contrast, included no

such modeling or assessment associated with the emissions associated with Tacoma LNG.

Moreover, the Tribe notes with concern that the LNG facility is largely enveloped by the 1873 boundary of the Tribe's Reservation. A significant portion of the Tribe's population is located within the Reservation boundary, as are many of the Tribe's cultural resources. Much of the Tribe's population is comprised of low-income individuals. Thus, the significant, adverse and unavoidable impacts presented by the LNG facility will cause a disproportionately high adverse effect on minority and low-income populations. The nature and extent of these impacts need to be meaningfully assessed.

Q. THAT PSCAA HAS ALLOWED CONSTRUCTION TO PROCEED WITHOUT A NOC ORDER OF APPROVAL IS A DERELICTION OF ITS DUTY.

PSCAA has thoroughly violated its own rules (and its responsibilities to the public) in allowing PSE to construct key components of the facility without an Order of Approval on PSE's NOC application. This includes an 8 million gallon tank that now looms large over the Tacoma Tideflats.

As PSCAA knows well, the "C" in NOC stands for construction. PSCAA Regulation I, Section 6.03 provides that it is unlawful for a project proponent to commence construction, and for PSCAA to allow such construction, if an Order of Approval has not been obtained: "[it] shall be unlawful for any person to cause or allow the establishment of a new source…unless a 'Notice of Construction application' has been filed and an 'Order of Approval' has been issued by the Agency." Regulation I, §6.03(a) (emphasis added).

The term "begin actual construction" is defined to mean, "initiation of physical on-site construction activities on an emission unit that are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying underground pipe work and construction of permanent storage structures." WAC 173-400-030(11) (incorporated into Regulation I pursuant to Section 6.01(a)). An "emission unit" is defined to mean "any part of a stationary source or source which emits or would have the potential to emit any pollutant subject to regulation" under the Federal CAA or RCW chapters 70.94 or 70.98. WAC 173-400-030(31) (incorporated into Regulation I pursuant to Section 6.01(a)).

Thus, taken together, it is unlawful for PSCAA to allow the initiation of physical on-site construction activities on any part of a stationary source that has the potential to emit any pollutant, including installation of foundation, underground pipe, and permanent storage structures, if an Order of Approval has not first been obtained. But – as the Tribe pointed out to PSCAA over a year ago – this is precisely what PSE has done.

Because there is no serious dispute about the legality of PSE's construction activities – they are unlawful under PSCAA's own regulations – PSCAA has an obligation to ensure compliance by requiring PSE to cease work until it obtains an Order of Approval. Despite being

on notice of these violations, PSCAA has taken no such action.[57]

III. CONCLUSION AND REQUEST FOR PSCAA TO RECONSIDER ITS PRELIMINARY DECISION AND DENY THE ORDER OF APPROVAL

In providing its preliminary determination to issue an Order of Approval for the Tacoma LNG facility, PSCAA disregards its obligations to the citizens of Tacoma by failing to exercise its substantive SEPA authority to deny the permit outright. PSCAA likewise disregards its duty to meaningfully consult with the Puyallup Tribe of Indians. Had PSCAA meaningfully considered the facility's unmitigated impacts under SEPA or honored its obligation to consult with the Tribe, it is the Tribe's belief that PSCAA would have decided that the project was fundamentally flawed and that further study was necessary to determine whether it should issue an Order of Approval.

The policy issues, technical problems and legal concerns identified above are substantial and deserve PSCAA's full and fair consideration. Fortunately, PSCAA has the ability to address the Tribe's concerns in a straightforward and purposeful manner and the Tribe respectfully requests that the PSCAA take the following actions in the exercise of its delegated authority under the federal and state Clean Air Acts.

First, the Tribe requests that the PSCAA use its substantive SEPA authority and deny the Order of Approval based on the unmitigable impacts that the Tacoma LNG presents. At the very least, PSCAA should require the preparation of a SEIS that evaluates impacts from accidental emissions and the resulting dispersion of flammable vapors, addresses environmental justice concerns and includes a Health Impact Assessment.

Second, the Tribe requests that PSCAA engage in meaningful consultation with the Tribe. The purpose of this consultation will be to further inform PSCAA of the concerns identified above and to permit the Tribe and PSCAA to engage in the type of meaningful and mutually-informative government-to-government communication as directed by applicable federal and state law.

Third, if PSCAA is unwilling to utilize its substantive SEPA authority, it should take the following important steps towards protecting air quality and the public before it makes a final decision to grant an Order of Approval:

(1) Correct its analysis concerning the facility's air impacts consistent with these comments;

(2) After ascertaining the facility's true impacts through a corrected review and analysis, make a permitting decision that is consistent with Washington's Clean Air Act and protects the public from the facility's air impacts; and

[57] All the while, and as acknowledged in the FEIS, those located near the site have been forced to endure the degraded air quality resulting from those construction activities. FEIS at pp. 3.2-7 to 3.2-9.

(3) Consider the environmental justice implications of its permitting decision and complete a Health Impact Assessment (so that PSCAA understands the health impacts of granting the Order of Approval) before making its permitting decision.

Fourth, the Tribe requests that PSCAA properly exercise its public trust obligation to the community and its special government-to-government relationship with the Puyallup Tribe of Indians. The Tribe remains hopeful that PSCAA will ultimately protect us from the threats that this facility poses to our safety, to the air we breathe, and to our continued existence.

ATTACHMENT 1

BRAEMAR

Tacoma LNG – Technical Review of Puyallup Tribe October Letter

Braemar Technical Services

Houston, Texas USA

Report Number : BEP1251
Revision : 0
Draft
Date: 5 March 2019

Prepared for:
The City of Tacoma Fire Department

- NFPA 59A 2001 & 2013 editions, National Fire Protection Association Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)
- 49 CFR Part 193, Federal Safety Standards: Liquefied Natural Gas Facilities
- 33 CFR Part 127, Waterfront Facilities Handling Liquefied Natural Gas and Liquefied Hazardous Gas

Performing "LNG Fire and Safety" compliance evaluations for LNG facilities is not new to Braemar and predecessor affiliate company, PTL Associates. In the US Federal Register of March 10, 2004, the Research and Special Programs Administration published a 49 CFR Part 193 final rule concerning liquefied natural gas facilities that clarified regulations governing the fire protection of LNG facilities in existence or under construction as of March 31, 2000. The final rule also updated all reference to fire protection provisions of the National Fire Protection Association standard, NFPA 59A, from the 1996 edition to the 2001 edition of that standard. One effect of the March 10, 2004 amendments is that existing LNG facilities were retroactively required to comply with the revised fire protection requirements in Chapter 9. Existing US LNG facilities were no longer considered "grandfathered" or compliant by just meeting the NFPA 59A Chapter 9 code in force at the time of design and construction of the facility. In particular, NFPA 59A 2001 edition required a formal fire protection evaluation (Paragraph 9.1.2). Design, installation and training per the 49 CFR Part 193, March 10, 2004 amendment was required for all US LNG facilities to be completed by September 12, 2005. Since 2004, Braemar and predecessor affiliate PTL Associates have performed and completed "LNG Fire and Safety" compliance evaluations at more than 25 US LNG facilities, to evaluate compliance, make recommendations, and issue a formal fire protection evaluation similar the "LNG Fire and Safety" compliance evaluation performed for the Tacoma PSE LNG Facility.

Braemar's role also included providing technical support, general guidance, and review of other relevant documents for the City of Tacoma Fire Department.

For internal consistency, Braemar typically assigns 1, possibly 2 LNG technical specialist(s) to perform LNG Fire and Safety compliance evaluations from beginning to end. The assigned LNG technical specialist(s) become the expert(s) for the particular LNG facility by performing site inspections and responsible for technical document reviews and generating the reports of their evaluation. After internal draft reports are generated, others perform a series of internal technical peer reviews, formatting, and quality reviews prior to the draft being issued.

The July 2, 2018 "Tacoma LNG Fire and Safety" compliance evaluation was based on project status at the time of the evaluation. Tacoma LNG Operating Procedures will be reviewed after they are submitted to the Tacoma Fire Department. Per Chapter 9, NFPA 59A 2001 edition, a "Fire and Safety Review" of an LNG facility includes an evaluation of operating procedures and plans that include; operations, maintenance, emergency procedures, and qualifications of LNG operating personnel. After operations begin, the Tacoma Fire Department will perform periodic inspections to ensure the plant operator is complying with proper inspection, testing and maintenance of fire protection systems; Braemar will support Tacoma Fire Department as requested. Also, WUTC will perform inspections to ensure that the operation is continuing to comply with 49 CFR 193. The Tacoma Fire Department will continuously review the project as it progresses.

(b) NFPA 59A, "Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)" (2006 edition, Approved August 18, 2005).

The U.S. Department of Transportation and PHMSA are responsible for ensuring compliance with Part 193. PHMSA issues guidance for complying the requirements in the form of a webpage https://www.phmsa.dot.gov/pipeline/liquified-natural-gas/lng-plant-requirements-frequently-asked-questions. PHMSA (Pipeline and Hazardous Materials Safety Administration) and their state partner, the Washington Utilities and Transportation Commission (WUTC), also share responsibility for LNG regulatory compliance review and approval of project siting, design conformance to applicable LNG codes, and future operations. The United States Coast Guard (USCG) has responsibility for the dock (marine transfer area), and LNG transfer operations to the TOTE Maritime ships.

The Tacoma Fire Department is an Authority Having Jurisdiction (AHJ) to review and approve plant siting, fire protection, safety systems and emergency response requirements for the Tacoma LNG project. The AHJ mandate includes review, interpret and approve the applicable adopted Fire codes and standards to the LNG facility design and site operations. This role is not limited to initial design, but is a long-term relationship between the City of Tacoma Fire Department and Tacoma LNG to carry out duties of fire prevention, control, and emergency services for Tacoma LNG facility, that includes:

- Design and construction permit review process:
  - Conducting applicable LNG code review for plant siting, process design, fire protection, and safety systems.
  - Plan reviews, inspections and approvals of building permits submittals.
  - Interface with WUTC and USCG to compare and agree on findings and recommendations.
- After operations begin, the Tacoma Fire Department will perform periodic inspections and the plant operator must ensure proper inspection, testing and maintenance of fire protection systems.
- As first responders to a potential emergency incident at the Tacoma LNG facility or LNG transfer dock; protect the public, plant personnel, and LNG facility property from fire, escalation, and to provide rescue and emergency medical first responder services.

The Tacoma Fire Department agrees that the operating procedures must be evaluated and has set aside budget for the evaluation of the operating procedures. The operating procedures will be evaluated after they are prepared and submitted by the operator for evaluation.

[p. 30] "A code approved methodology ***[Sahu: This assertion is vague - what section of what code contains this methodology?]*** *for calculating thermal radiation siting was used to demonstrate the 1,600 BTU/ft2-br thermal isopleths remain within the LNG plant boundaries."*

Braemar Response

Thermal radiation siting requirements are specified in 49 CFR 193.2057 Thermal radiation protection; the text for 49 CFR 193.2057 is indented below.

> Each LNG container and LNG transfer system must have a thermal exclusion zone in accordance with section 2.2.3.2 of NFPA 59A (incorporated by reference, see §193.2013) with the following exceptions:

ATTACHMENT 2

From:	Roy Lucas <roynlucas@icloud.com>
Sent:	Friday, July 29, 2016 6:54 AM
To:	Rathbun, Alan (UTC)
Cc:	Roy Lucas; Subsits, Joe (UTC); Halliday, Julie (PHMSA)
Subject:	Re: Support for PSE
Attachments:	App L - Tacoma LNG Siting Study Report - VCE Calculations & Plots.pdf.pdf.pdf.pdf

I agree. Certainly there are issues for which you may need more details, particularly if are questions from people opposed to this project. Unfortunately, complete answers to some of these questions are more complex than the short responses suggested below.

Consider responses (bullet point answers and longer answers) to your questions in the following order:
1) Is overpressure from a vapor cloud explosion something of concern to local residents?
Short answer is Yes.
Longer answer has two parts:
a) the PSE website posts in a FAQ/Answer format some 17 items — six of these involve explosions, two involve vapor clouds, and one involves thermal radiation
This suggests some people are concerned about the consequences of vapor cloud explosions. Various newspaper articles and the Redline Tacoma website reveal the nature of these concerns
b) regarding a March 2014 explosion at the Plymouth LNG facility, a local newspaper reports
"*The blast completely fragmented a large piece of the natural gas processing equipment called an absorber, propelling 250 pounds of debris and shrapnel up to 900 feet away and injuring 5 employees. One employee's injuries were so extensive that a coworker who helped him evacuate the grounds did not initially recognize him. The explosion caused extensive physical damage to buildings and electrical equipment and even bent the BNSF rail line near the perimeter of the facility's property*". The 2 July newspaper article you forwarded recently supplements this description by stating that a May 2016 Washington UTC report stated heavy chunks of shrapnel were hurled hundreds of yards and pierced the outer shell of a 14 million gallon LNG storage tank.

2) Has a 1 psi overpressure contour been considered for this facility?
Short answer is Yes.
Longer answer has several parts. The FAQ/answer document posted by PSE states that the only possibility of a explosion is from a vapor cloud of refrigerant used in the natural gas liquefaction and that the pressure wave radius from a VCE of this material is approximately 230 feet. The attached 11 page Appendix L from the PSE siting report contains copies of two sets of overpressure calculations performed with industry recognized software. These calculations show a 1 psi overpressure contour remains well within property line. From the PSE FAQ document, it is unclear which level of overpressure extends approximately 230 feet from what point; from the (not publically- available) Appendix L document, it is appears that a 1 psi overpressure contour is considered that is centered either near the liquified (Area 1) or the compressor building (Area 2. This 1 psi contour remains within PSE property limits and would satisfy PHMSA guidance in this matter

3) Will a 1 psi overpressure contour be considered part of the Form 18 evaluation?
Short answer is No
Longer answer is Form 18 is tied to explicit elements of NFPA 59A. There has been modest interest in revising Form 18 to reflect consideration of hazards from vapor cloud explosions, toxic gases, BLEVEs, jet fires and similar items not explicitly listed in NFPA 59 A 2.1.1(d). PHMSA guidance found in FAQ/responses for toxicity and overpressures is has been posted to help bridge this current "gap".

There are two specific concerns concealed in the longer response of the second item:

1) Overpressure calculations for the Tacoma sites have been performed with appropriate software; the results show that a 1 psi overpressure contour remains within property boundaries. This conforms to PHMSA guidance.
A concern is that the leak sources selected are smaller than expected. If the leak sources considered had been the customary connection failure on the vessel or a failure of a small bore connection to piping, the leak source would have a 2 inch ID rather than the 0.4 inch ID chosen which is appropriate for a weld failure. It is possible that the reluctance of PSE to disclose the overpressure results submitted to the City of Tacoma may be based on recognition that the calculated results understate the extent of overpressure from a VCE

Selection of a connection-based leakage source would significantly increase the foot print, elevation and the downwind distance of the vapor cloud and the resulting radius of 1 psi overpressure. With the larger vapor cloud, I suspect (but do not know) the 1 psi overpressure contour would remain within property limits. This concern could be readily addressed by PSE by modeling an explosion from a larger vapor cloud produced by a more appropriately selected leak size
2) The PSE FAQ/response states that a ignition of a cloud of refrigerant vapor provides the only potential for an explosion. In fact, there are two other potential overpressure sources that should be considered; both of these could produce 1 psi overpressure values that extend beyond PSE property lines
a) a BLEVE involving an LNG tank truck at the loading rack.
The PSE FAQ correctly states that the LNG storage tank at the Tacoma site cannot be the source of a BLEVE. However, there is no reference to a BLEVE involving fire around a LNG truck at the loading dock. The software used by PSE can be used to model the BLEVE from an LNG truck and a BLEVE of whatever is used to deliver refrigerant components to the site
b) a VCE involving ignition of LNG vapors and air partially confined between the TOTE vessel, the loading dock, and the water surface.
This issue has been raised at other sites; the scenario has been successfully modeled. The partially confined explosion of a mixture of LNG vapor with air at the Plymouth site penetrated the shell of an LNG storage tank; the hull of one of the TOTE vessels could be damaged by a larger volume of LNG vapors mixed with air and partially confined. FLACS software is appropriate for the overpressure calculations. As FLACS has already been used to model the dispersion of vapor into this semi-confined region between a ship and the dock, I expect this would be the software of choice.

While there is a technical solution available, this scenario (vapors from a LNG spill into an impoundment flowing into a semi-confined space over water) involves several jurisdictions. The Coast Guard should be involved as it is that the ship may be damaged and those loading the trucks may be injured. . PSE is involved as the vapors originate from an impoundment containing LNG produced by PSE. The 193 involvement is less clear. PHMSA guidance H5 allows a flammable vapor exclusion zone to extend over water; however, if may not be allowed if there is a dock or pier that is not owned or controlled by PSE is involved. PHMSA guidance also states that 1 psi at property limits can be used to demonstrate compliance with NFPA 59 A 2.1(d) requirements but higher values could be allowed if LNG plant operators would not be harmed

Someone who was interested in opposing this project (or the proposed expansion to barges to bring LNG as fuel to the barges) could raise one or both concerns. The first could be easily resolved by PSE; resolution of the second could best be addressed by the Coast Guard

On Jul 27, 2016, at 12:42 PM, Rathbun, Alan (UTC) <arathbun@utc.wa.gov> wrote:

Roy, thank you for the education...so has the 1 psi overpressure contour been considered for this facility.....or will that be considered as part of the Form 18 evaluation? If Vapor Cloud Explosions are the fear that local residents are really concerned about, is this overpressure contour part of our review process?

Given our presentation timeframe, I don't want to get into intensely complex discussions, but this is something we need to know.

Alan E. Rathbun
Pipeline Safety Program
Washington Utilities and Transportation Commission
(360) 664-1219
Respect, Professionalism, Integrity and Accountability

From: Roy Lucas [mailto:roynlucas@icloud.com]
Sent: Tuesday, July 26, 2016 2:24 PM
To: Rathbun, Alan (UTC) <arathbun@utc.wa.gov>
Cc: Roy Lucas <roynlucas@icloud.com>; Subsits, Joe (UTC) <jsubsits@utc.wa.gov>; Halliday, Julie (PHMSA) <julie.Halliday@dot.gov>
Subject: Re: Support for PSE

OK. No thermal radiation discussion. No overpressure discussion.

For your benefit, PHMSA guidance H1 and H3 address overpressure and 193. Both are based on incorporation of NFPA 59A 2.2.1(d) by reference into 49 CFR 193; this requires that all hazards that can affect the safety of the public or plant personnel be considered. H1 cites explicitly overpressures from vapor cloud explosions and from BLEVEs as hazards that can affect public safety or that of plant personnel. H3 states that VCE modeling must consider vapor dispersion modeling results, evaluation of areas of confinement and congestion, and reactivity of released materials. Both H1 and H3 provide guidance as how conformance to 2.2.1(d) can be demonstrated. They are not, however, substantive rules and there well may be other means of demonstrating compliance.

Every application for LNG import or export terminals reviewed by FERC considers overpressures. If the 1 psi overpressure contour remains within property limits, FERC considers the matter closed. If the 1 psi overpressure contour extends past property limits, then FERC has further concerns.

Releases of LNG typically do not lead to VCE because the vapors are not confined and methane is not reactive.

1) The Plymouth event demonstrates the effects of confinement on methane

2) Methane is the least reactive of the light hydrocarbons; ethylene (used as a refrigerant) is the most reactive

If the LNG contains some ethane and/or somewhat less propane, Coast Guard tests have demonstrated ignition of unconfined LNG vapor clouds can explode. Refrigerants (propane, isopentane) usually produce vapor clouds which will explode; for these, confinement is created by the density difference between the vapor cloud and ambient air.

There is no regulatory exclusion zone for overpressure from vapor cloud explosion. No calculation method for overpressure is specified. PHMSA guidance provides for a case-by-case evaluation for each site with the assurance that conformance with the EPA/OSHA 1 psi threshold at property limits is considered as demonstration that the 59 A 2.2.1(d) requirements have been satisfied.

> On Jul 26, 2016, at 3:14 PM, Rathbun, Alan (UTC) <arathbun@utc.wa.gov> wrote:

Roy, we would rather not get into the overpressures from a vapor cloud explosion....but for our benefit is that modelled in reference to Part 193? My guess is that is what the media has picked up on. I want to stay on point with code compliance.

We understand your reluctance to bring up the "waiver" but it could come up because the process was generally known.

Alan E. Rathbun
Pipeline Safety Program
Washington Utilities and Transportation Commission
(360) 664-1219
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From: Subsits, Joe (UTC)
Sent: Tuesday, July 26, 2016 1:05 PM
To: Roy Lucas <roynlucas@icloud.com>; Rathbun, Alan (UTC) <arathbun@utc.wa.gov>
Cc: Halliday, Julie (PHMSA) <julie.Halliday@dot.gov>
Subject: RE: Support for PSE

HI Roy

Alan asked me to respond to your questions

I would say address the vapor exclusion zone only

Overpressure from vapor cloud explosion would be a good thing to know about but I would not address it in a slide

Thank You for all of your help

From: Roy Lucas [mailto:roynlucas@icloud.com]
Sent: Tuesday, July 26, 2016 11:53 AM
To: Rathbun, Alan (UTC) <arathbun@utc.wa.gov>
Cc: Roy Lucas <roynlucas@icloud.com>; Halliday, Julie (PHMSA) <julie.Halliday@dot.gov>; Subsits, Joe (UTC) <jsubsits@utc.wa.gov>
Subject: Re: Support for PSE
Importance: High

Clear and complete. Expect to have draft PowerPoint "slides" ready for review/comment by COB Wednesday These will be in a customary format where speaker's notes are available at the bottom of each slide but are not projected.

Two clarification issues.

1) **Do you want only to consider the exclusion zone for vapor? Or do you want to consider also the exclusion zone for thermal radiation?**
Most of the misleading information from large spills extracted by newspaper reporters and NGOs from the 2008 Sandia report involve dispersion of flammable vapors (2,800 meters from a 290 meter diameter spill, 3.300 meters from a 920 meter diameter spill) but there are some extracted data regarding thermal radiation if a large spill were to ignite — for example, 881 meters to a thermal flux level of

5 kW/m2 from ignition of a 225 meter diameter spill and 1981 meters to this same regulatory threshold for a 550 meter diameter spill. PSE has claimed that the thermal exclusion zone is no larger than 550 feet: this is from a fire at the top of 140 tall LNG storage tank.

This thermal radiation issue can either be addressed (couple of slides) or ignored — your choice.

2) **Do you want to address overpressures from vapor cloud explosions?**
Most of the public concerns expressed have involved "blast zones" extending well beyond property limits. Certainly the LNG facility at Plymouth experienced an explosion; however, it was a confined vapor and the effects did not extend past property limits.

Again, the explosion issue can be addressed (an additional couple of slides) or not. Your choice.

Comments on the LNG transfer line to the TOTE bunkering facilities and on the loading arms
The transfer line from the LNG storage tank to the TOTE facilities is underground. It does not have an exclusion zone. PSE has requested a wavier for use of this design. Unless you feel strongly that this issue will be raised, I would prefer to avoid any discussions of the wavier request or its resolution.

That said, there are conventional impoundments at both end of this underground line — one on the PSE side within property limits and one near the TOTE bunkering facility. Vapors dispersing from an LNG spill into the impoundment on the PSE side remain within PSE property limits. Vapors dispersing from a spill into the TOTE-side impoundment (including specifically leaks of LNG from the loading arms/hoses) are expected to flow over water adjacent to the loading facilities and over land on which various containers/trucks may be parked. Late into the design, the applicant elected to install a vapor fence to prevent vapor flow into the container/truck area and a somewhat different vapor barrier to reduce (but not eliminate) flow of vapor into the region between a ship, the truck loading ramp, and the water surface.

Flow of flammable vapors over water is not 193 issue. It could well be a Coast Guard issue or even a Port of Tacoma issue. It could also be better mitigated than it has been as of 17 September 2015 (which is the last documentation on this matter which I have). Should the matter be raised, Coast Guard views will control.

> On Jul 26, 2016, at 12:30 PM, Rathbun, Alan (UTC) <arathbun@utc.wa.gov> wrote:
>
> Roy;
>
> Just had a conversation with Port officials this morning. In total, we have 15 minutes and so the number of slides will be minimal. Outlined below is what they are looking for;

- Role of the UTC (we got this one)
- Regulatory Environment for LNG (think we are talking here about our role, but perhaps why FERC is not involved....and we also have the USGS)
- Outline of safety record of LNG
- Vapor or exclusionary zone....this is where we need a brief overview of model (what are the variables), who uses the model and what does the code say about the limits of the flammable vapor. One item that may come up here is whether the exclusionary zone includes the outlet pipe to TOTE....and what are the vapor limits associated with the loading arm to the TOTE vessels....USCG?
- Size comparison of this project to other LNG facilities in the US....especially import/export type facilities

This does not have to be in final PowerPoint form as our office will put it into the needed format. But we would like something by **Wednesday COB is possible**.

Thanks for any help you can provide.

Alan E. Rathbun
Pipeline Safety Program
Washington Utilities and Transportation Commission
(360) 664-1219
Respect, Professionalism, Integrity and Accountability

From: Halliday, Julie (PHMSA) [mailto:julie.Halliday@dot.gov]
Sent: Monday, July 25, 2016 10:07 AM
To: Roy Lucas (roynlucas@icloud.com) <roynlucas@icloud.com>
Cc: Subsits, Joe (UTC) <jsubsits@utc.wa.gov>; Rathbun, Alan (UTC) <arathbun@utc.wa.gov>
Subject: Support for PSE

Hi Alan/Joe – please let Roy know when you need this by...

Hi Roy,

Just to recap, can you please put together the following for Alan/Joe in an easily digestible format:

1. Talking points regarding Part 193 in general. Perhaps a few points as to how these are over/above what is required for other plants such as petrochemical facilities/chemical facilities.
2. What role had PHMSA played to support WUTC's review of the PSE facility?
    a. Review of exclusion zone (same review that would be performed if this were a FERC regulated facility)
    b. Review of easement documents (ensured land was under operator or government control, not more than

50(?) non-PSE employees would be within the exclusion zone)
    c. Review of state waiver (site visit to Cove Point, technical review)
3. Brief description of how vapor dispersion models are approved by PHMSA.
4. Relative size of this facility to other LNG facilities
    a. Pat's slide showing the size of the export facility vs. typical peak shaving
    b. PHMSA annual report data showing size of storage
5. Safety history of LNG
    a. CHIV report (attached)
    b. PHMSA incident reports (attached)

Thanks,
Julie

Julie Halliday
Engineering & Research
US DOT PHMSA
202-366-0287 (O)
703-585-5791 (C)

ATTACHMENT 3

From: Jennifer Dold <JenniferD@pscleanair.org>
Sent: Monday, August 5, 2019 9:17 AM
To: Nicholas G. Thomas
Cc: Kyle Ponton-Welty
Subject: RE: Public Records Request - 4-26-19

Thank you for your 8/1/19 e-mail, Mr. Thomas.

I think the potential misunderstanding between the Agency and you at this point in time is that appears you are now asking for information about the records the Agency has produced to you as part of this request. *See e.g.* your statements below, for example, "we would appreciate being directed to the record(s) in which the information exists" and "we would like to receive all information...." As you may know, the Public Records Act does not require or create on obligation for the Agency to answer "requests for information" or to "explain public records." *See e.g. Bonamy v. King County*, 92 Wn. App. 403, 409 (1998). Thus, beyond providing to you responsive records pursuant to your clarified April 26, 2019 request (as we have done to date), the Agency is not in a position to answer your detailed questions about the produced records as you request in your 8/1/19 items (1) –(5) below.

However, the Agency can point to you generally the records responsive to your requests in items (1) – (5). The records considered by the Agency in preparing the "Engineering Review Worksheet" you identify in items (1)-(5) below, including related to the subjects of (1)-(5) below (flares and Chicago Bridge and Iron) are the records posted on Agency's website (and are highlighted in yellow in Mr. Ponton-Welty's July 26, 2019 e-mail to you below) and the air modeling records produced to you on December 19, 2017, May 28, 2019 and Aug. 1, 2019.

The Agency continues to work diligently on fulfilling your clarified April 26, 2019 request and anticipates having a next installment of records available by 8/30/19, or sooner if possible.

Thank you.

Jennifer A. Dold
General Counsel
Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105
Seattle WA USA 98101
206.689.4015
jenniferd@pscleanair.org

"Clean healthy air for everyone, everywhere, all the time."
www.pscleanair.org

From: Nicholas G. Thomas [mailto:nthomas@omwlaw.com]
Sent: Thursday, August 1, 2019 3:48 PM
To: Jennifer Dold
Cc: Kyle Ponton-Welty
Subject: RE: Public Records Request - 4-26-19

Hi Ms. Dold:

Thank you for your email and your attention on this. We recently received a great deal of information that was outside the scope of what we are seeking through this prioritized request, so I will do my best to be detailed regarding the information we are requesting. I will also break the previously made request up in a way that (hopefully) keeps things manageable and straightforward on your end. If, however, you have any questions on anything that is written below, please do not hesitate to call or email me at your earliest convenience.

(1) Pg. 41 of the document titled "Engineering Review Worksheet" for the Tacoma LNG facility (found at: https://www.pscleanair.org/DocumentCenter/View/3741/11386-Engineering-Review-Worksheet?bidId=) states the following: "PSE LNG assumed a destruction efficiency of 99% for VOC, which is a conservative estimate as the vendor has designed the flare for 99.5% control." (Highlighting added).

If PSCAA has received information providing a basis for the statement that "the vendor has designed the flare for 99.5% control," we would like to be provided with everything PSCAA has received that furnishes a basis for that statement.

- If we have already received all responsive information, we would appreciate being directed to the record(s) in which the information exists. Our review of the records produced has not yielded records establishing that the vendor has designed the flare for 99.5% control, or how the flare is designed for 99.5% control.

Also, if PSCAA has received a certification or some form of a guarantee that the flare will in fact achieve a certain level of "destruction efficiency," we would like to receive all information in PSCAA's possession establishing that the flare will indeed achieve a certain level of performance (or "destruction efficiency").

- If we have already received all responsive information, we would appreciate being directed to the record(s) in which the information exists. Our review of the records has not yielded records indicating that PSCAA has been provided any such guarantee(s) with regard to the flare.

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(2) Pg. 37 of the "Engineering Review Worksheet" contains a table. Multiple cells of that table contain the following language: "Vendor design specification provided by CB&I."

- We are asking for all "Vendor design specification(s) provided by CB&I." Our review of the records has not yielded the "design specifications" that PSCAA seems to be discussing.

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(3) Pg. 44 of the "Engineering Review Worksheet" states in pertinent part: "Carbon monoxide emissions were estimated from the flare manufacturer based on the design and the methane content of waste gases entering the flare." (Highlighting added).

- We are asking for all estimates "from the flare manufacturer" that PSCAA has received, including all materials supporting those estimates that were provided to PSCAA. If we have already received all responsive information, we would appreciate being directed to the record(s) in which the information exists. Our review of the records produced has not yielded these estimates or their bases.

---

(4) Pg. 44 of the "Engineering Review Worksheet" also states: "NOx emissions were estimated from the flare manufacturer based on the design and the amount of excess air combusted in the flare." (Highlighting added).

- Again, we are asking for all estimates "from the flare manufacturer" that PSCAA has received, including all materials supporting those estimates that were provided to PSCAA. If we have already received all responsive information, we would appreciate being directed to the record(s) in which the information exists. Our review of the records produced has not yielded these estimates or their bases.

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(5) In each instance that the Engineering Review Worksheet references information that was received from Chicago Bridge and Iron (CB&I) -- such as on pages 7, 31, 34, 37, 41, 42, 44, 47, and 47 - please provide whatever information/document/calculations, etc. underlie those references.

Thanks once more for your time and attention on this, and please feel free to contact me if you have questions regarding any of the foregoing.

Best regards,

Nick Thomas

Nicholas Thomas | Attorney

Ogden Murphy Wallace P.L.L.C.
901 Fifth Avenue, Suite 3500
Seattle, WA 98164
phone: 206.829.2703 | fax: 206.447.0215
www.omwlaw.com

From: Jennifer Dold <JenniferD@pscleanair.org>
Sent: Thursday, August 1, 2019 1:04 PM
To: Nicholas G. Thomas <nthomas@omwlaw.com>
Cc: Kyle Ponton-Welty <KylePW@pscleanair.org>
Subject: FW: Public Records Request - 4-26-19

Hi Mr. Thomas,

Mr. Ponton-Welty forwarded your e-mail below to me. Responding to your statement, "What we are asking for does not appear to be in the materials produced," please let me know if there is a specific record or records you are seeking that was not included in the records provided to you. Please include as many details as you have regarding that specific record(s) as that would aid us in finding it, if we have it. We will consider this an additional clarification to your 4/26/19 request as clarified and prioritized.

Thank you,

Jennifer A. Dold
General Counsel
Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105
Seattle WA USA 98101
206.689.4015
jenniferd@pscleanair.org

"Clean healthy air for everyone, everywhere, all the time."
www.pscleanair.org

From: Nicholas G. Thomas [mailto:nthomas@omwlaw.com]
Sent: Thursday, August 1, 2019 9:45 AM
To: Kyle Ponton-Welty; Andrew S. Fuller
Cc: Melody Simmons; Margaret M. Moynan; Geoff J. Bridgman; 'Lisa A. H. Anderson'
Subject: RE: Public Records Request - 4-26-19

Mr. Ponton-Welty:

Thank you for the correspondence. What we are asking for does not appear to be in the materials produced.

I suspect a phone call may be helpful at this juncture. Please give me a call at your soonest convenience. My direct line is: 206.829.2703.

As always, thanks for your time and attention on this --

Nick Thomas

Nicholas Thomas | Attorney

Ogden Murphy Wallace P.L.L.C.
901 Fifth Avenue, Suite 3500
Seattle, WA 98164
phone: 206.829.2703 | fax: 206.447.0215
www.omwlaw.com

From: Kyle Ponton-Welty <KylePW@pscleanair.org>
Sent: Thursday, August 1, 2019 9:31 AM
To: Nicholas G. Thomas <nthomas@omwlaw.com>; Andrew S. Fuller <afuller@omwlaw.com>
Cc: Melody Simmons <msimmons@omwlaw.com>; Margaret M. Moynan <mmoynan@omwlaw.com>; Geoff J. Bridgman <gbridgman@omwlaw.com>; 'Lisa A. H. Anderson' <Lisa.Anderson@puyalluptribe.com>
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller and Mr. Thomas:

After receiving your voice message yesterday, I realized that some of the records that were uploaded to Box.com yesterday may not have been records you were requesting as part of your prioritization request. Specifically, SEPA records (including SEPA consultant records), in addition to some other kinds of records, were inadvertently included with the uploaded installment yesterday and I realize now that these may not have been what you are interested in receiving (as part of your prioritization request).

I have uploaded a new folder to the link below that contains a smaller group of records that the Agency was intending to produce to you yesterday:

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

Specifically, there are three folders that have been created at the Box.com link titled "Air Modeling Files"; "NOC Public Notice Documents"; and "General NOC Records." Again, while the Agency does not believe the records located in the "General NOC Records" folder are directly responsive to your prioritization request, they are related to the NOC application and, thus, are being provided again today. Some of these records are duplicative of the records posted on the Agency's website and some may be duplicative of records you have received in prior installments. Please let me know if you have any trouble accessing the folder of records that has been uploaded to the link above today. The records uploaded to the link above today will be available for download until 9/2/19.

Please call or e-mail with any other questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522

1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Kyle Ponton-Welty
Sent: Wednesday, July 31, 2019 3:03 PM
To: 'nthomas@omwlaw.com'; 'afuller@omwlaw.com'
Cc: Melody Simmons; Margaret M. Moynan; Geoff J. Bridgman; 'Lisa A. H. Anderson'
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller and Mr. Thomas:

Regarding the prioritization request submitted by Mr. Fuller on July 25, 2019 and clarified by Mr. Thomas on July 26, 2019, a search for records, other than those already posted on the Agency's website, has been performed. In addition to the records referenced in the highlighted portions of the screen shots provided to you on July 26, 2019, air modeling records were located as responsive to the clarified request for prioritization. These air modeling records are not currently located on the Agency's website because of their size. These air modeling records were provided to you on December 19, 2017 and May 28, 2019. For your convenience, the Agency has again uploaded these air modeling records to the following link:

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

In addition, the Agency is uploading to the above link additional records related to the NOC application that, while the Agency does not believe are directly responsive to your prioritization request, are related to the NOC application. These records may be duplicative of records you have already received in prior installments and records that are posted on the Agency's website for the PSE proposal.

Please let the Agency know if you have any trouble accessing the records uploaded today to the link above. The records uploaded to the link above today will be available for download until 9/1/19.

Other than the records located on the Agency's website and the records uploaded to the link above today, no other records were located as responsive to your request for prioritization.

Please note, the Agency continues to work diligently on fulfilling your request. If you have any other questions or requests for prioritization, please feel free to call or e-mail with them.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Kyle Ponton-Welty
Sent: Monday, July 29, 2019 11:02 AM
To: 'nthomas@omwlaw.com'; 'afuller@omwlaw.com'
Cc: Melody Simmons; Margaret M. Moynan; Geoff J. Bridgman; Geoff J. Bridgman
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Thomas:

Thank you for providing additional clarification of the prioritization request submitted by Mr. Fuller on July 25, 2019.

In response to your additional clarification: "The request does not seek the information 'located in the Engineering Review Worksheet'; the request seeks all information that underlies statements in the worksheet, which statements fall into the two categories set out in the request," the Agency believes "all information that underlies statements in the worksheet" is located in the highlighted records of the screen shots provided to you on July 26, 2019 (below); however, the Agency will continue to search for any records that may be responsive to your further clarified request for prioritization and will provide any additional records that it locates, if they exist, by 7/31/19.

Please call or e-mail with any other questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Nicholas G. Thomas [mailto:nthomas@omwlaw.com]
Sent: Friday, July 26, 2019 3:25 PM
To: Kyle Ponton-Welty; Andrew S. Fuller
Cc: Melody Simmons; Margaret M. Moynan; Geoff J. Bridgman; Lisa Anderson
Subject: RE: Public Records Request - 4-26-19

Kyle:

Thank you for your response below.

Please be advised that "information from Chicago Bridge and Iron ("CB&I") located in the Engineering Review Worksheet located on the Agency's website," as stated in your email below, does not accurately capture the Mr. Fuller's July 25, 2019 request. The request does not seek the information "located in the Engineering Review Worksheet"; the request seeks all information that underlies statements in the worksheet, which statements fall into the two categories set out in the request.

For example, the request seeks all information that led PSCAA to make the following statement at pg. 41 of the Engineering Review Worksheet: "which is a conservative estimate as the vendor has designed the flare for 99.5% control." So, using this example, the request is asking for all information provided to PSCAA establishing the flare is designed for and/or will achieve "99.5% control."

I hope this helps clarify. Please do not hesitate to contact Andrew Fuller or myself if you need assistance or additional clarification on the request.

As always, thanks for your time and attention on this important matter.

Best regards,

Nick

Nicholas Thomas | Attorney

Ogden Murphy Wallace P.L.L.C.
901 Fifth Avenue, Suite 3500
Seattle, WA 98164
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From: Kyle Ponton-Welty <KylePW@pscleanair.org>
Sent: Friday, July 26, 2019 1:46 PM
To: Andrew S. Fuller <afuller@omwlaw.com>
Cc: Melody Simmons <msimmons@omwlaw.com>; Nicholas G. Thomas <nthomas@omwlaw.com>; Margaret M. Moynan <mmoynan@omwlaw.com>
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller:

Thank you for calling and e-mailing with additional clarification of your request. The Agency has received the prioritization request that you submitted via e-mail on July 25, 2019 (attached).

Numbers 1) and 2) in your July 25, 2019 e-mail reference information from Chicago Bridge and Iron ("CB&I") located in the Engineering Review Worksheet located on the Agency's website. The Agency believes that all of the information and records that you are requesting in the attached e-mail are located at the Agency's website via the following link:

https://www.pscleanair.org/460/Current-Permitting-Projects.

I have included screen shots highlighting the records on the Agency's website where you can find the information that you've requested in your attached e-mail:

Puget Sound Energy - LNG Facility Tacoma

Puget Sound Energy submitted an application for a new liquefied natural gas (LNG) facility in the Tacoma Tide Flats. The site would include a new Tote Ocean Trailer Express Marine Vessel LNG fueling system used to distribute to ships. Other potential uses for the LNG product were also identified, primarily marine fuel.

On March 29, 2019, the Agency published the Final SEIS (FSEIS) for the GHG analysis. The FSEIS documents include the review and consideration of the comments received. The publication of the FSEIS represents the completion of the part of the review process and will be used to support the review of the air permit application. For more information and to view the FSEIS documents, visit the SEIS tab below. Schedule information regarding the air permit review status and processes are not presently available.

On July 22, 2019 the Agency completed a review of the Puget Sound Energy, Tacoma Liquefied Natural Gas (LNG) facility Notice of Construction Application (NOC 11386) and has made a preliminary determination that the proposal meets all the requirements of Agency Regulations I, II and III and should be approved. The Agency will hold a public comment period and public hearing on a proposed permit. The notice for the proposed permit comment and hearing process may be found below and permit review documents and supporting information may be found on the Application Documents tab.

Sign up to be automatically notified of any updates

Permit Review | Permit Process | Application Documents | SEIS

Notice of Public Hearing and Comment Period

Puget Sound Clean Air Agency

Proposed Order of Approval No. 11386

Puget Sound Energy

1001 E Alexander Ave.

Tacoma WA, 98421

The Puget Sound Clean Air Agency will hold a public comment period and public hearing on a proposed permit for Puget Sound Energy - Tacoma Liquefied Natural Gas (LNG) Plant.

The emissions associated with the project were evaluated and could total up to 49 tons per year of Volatile Organic Compounds (VOCs), 11 tons per year of Sulfur Dioxide (SO2), 1.2 tons per year of Particulate Matter (PM), 3.6 tons per year of Nitrogen Oxides (NOx), 12 tons per year of Carbon Monoxide (CO), 0.37 tons per year of Hazardous Air Pollutants (HAPs), and 1.48 tons per year of Toxic Air Contaminants (TACs, excluding criteria pollutants identified above).

Preliminary Determination

The Agency has completed a review of PSE's Tacoma LNG application No. 11386 and has made a preliminary determination that the proposal meets all the requirements of Agency Regulations I, II and III and should be approved. A review of the environmental impacts from the project was evaluated by the City of Tacoma, as documented in an Environmental Impact Statement (EIS) published on November 9, 2015. The Puget Sound Clean Air Agency supplemented the Air and Cumulative Impact sections in the City of Tacoma's EIS, specifically related to the life-cycle emission of greenhouse gases (GHGs), with a published FSEIS on March 29, 2019. The Agency is relying on both documents to satisfy the SEPA requirements for this NOC application. More information on the EIS and the SEIS can be found on this page.

Permit Documents:

- Public Notice (PDF)
- Proposed Order of Approval (PDF)
- Engineering Review Worksheet (PDF)
- Associated Embedded Spreadsheets
  - Attachment 1 Cost Analysis Spreadsheet (xlsx)
  - Attachment 2 Cost Analysis Spreadsheet (xlsm)
  - Attachment A PSE LNG Emissions, revised 2017-11-28 (xlsx)
  - Revised Attachment D Waste Gas Case Data, Revised 2019-07-11 (xlsx)

Puget Sound Energy - LNG Facility Tacoma

[illegible]

Permit Review | Permit Process | **Application Documents** | SEIS

Permit Documents

Date	Description	Documents
July 22, 2019	The Agency completed a review and has made a preliminary determination that the proposal meets all the requirements of Agency Regulations I, II and III and should be approved.	• Public Notice • Proposed Order of Approval • [illegible]
March 29, 2019	Supplemental information for NOC Application	• PSE NOC Application Supplemental Information
March 28, 2019	The Agency completed the Final SEIS.	• Cover Letter and Notice of Availability of FSEIS • Final SEIS Tacoma LNG
October 8, 2018	The Agency completed the Draft SEIS.	• Cover Letter and Notice of Availability DSEIS • Draft Supplemental EIS Tacoma LNG
January 24, 2018	The Agency determined that a SEIS is required to identify and analyze greenhouse gas emissions and impacts for the project.	• [illegible] • Notice of SEIS
November 8, 2017	Updated flare cost comparison for BACT determination	• Flare Comparison
October 2, 2017	The Agency deemed the PSE LNG application technically complete.	
September 27, 2017	[illegible]	• Hexavalent Chromium Response • [illegible]
September 18, 2017	Emission calculations and modeling results	• Supplemental Information to Application
September 8, 2017	Results of air quality modeling	• Air Quality Modeling
August 11, 2017	PSE responded further to the Agency's June 21st letter requesting more information.	• [illegible] • Attachments A-D
June 30, 2017	PSE responded to the Agency's letter requesting additional information	• Response to Information Request Letter • Detailed Facility Block Diagram • Attachments - Potential Emissions From: WPG Pretreatment Heater (A-1), Regeneration Pretreatment Heater (A-2), Emergency Generator (A-3)
June 22, 2017	Results of modeling of air pollutants from the proposed facility	• Modeling Analysis
June 21, 2017	The Agency did a preliminary review of the application submitted by PSE and requested additional information from them. The letter described in detail the information needed.	• NOC Application Incomplete Letter
May 22, 2017	PSE submitted the NOC application.	• Notice of Construction Application - Tacoma LNG Facility

Other than the records highlighted in the screen shots above, the Agency believes it is very unlikely that additional records exist that are responsive to your attached prioritization request; however, the Agency will search for and

prioritize the production of any additional records that it locates. Any additional records that are located as responsive to your attached prioritization request, if they exist, will be produced to you by 7/31/19.

Regarding your 4/26/19 clarified request, a next installment of responsive records has been uploaded to the following link:

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

Please let the Agency know if you have any trouble accessing the records uploaded to the link above. The records uploaded today to the link above will be available for download until 8/27/19.

The Agency anticipates having a next installment of records available by 8/30/19.

Please call or e-mail with any questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Kyle Ponton-Welty
Sent: Monday, June 24, 2019 3:37 PM
To: 'afuller@omwlaw.com'
Cc: Melody Simmons; Nicholas G. Thomas; Margaret M. Moynan
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller:

Regarding your clarified April 26, 2019 records request, a next installment of records has been uploaded to the following link:

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

Please let me know if you have any trouble accessing the records at the link above. The records at the link above will be available for download until 7/25/19.

The Agency anticipates having a next installment of records available by 7/26/19. Please call or e-mail with any questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Kyle Ponton-Welty
Sent: Tuesday, May 28, 2019 12:50 PM
To: 'afuller@omwlaw.com'
Cc: Melody Simmons; Nicholas G. Thomas; Margaret M. Moynan
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller:

Thank you for calling with additional clarification of your request on 5/24/19. This e-mail is intended to memorialize that Conversation:

1. You asked a question related to receiving duplicate copies of records.

I explained that some records provided to you in response to previous records requests submitted by you or your law firm may be provided to you again in response to your current records request. I explained that the installment provided on 5/24/19 was considered responsive to your original request of "All communications pertaining to the LNG Project." I explained that you may also receive duplicate records because of communications with other requesters.

2. You asked a question related to regulatory review of the PSE LNG project.

I explained that, as the Agency's Public Records Officer, I am not responsible for reviewing any part of the PSE LNG application, or assessing any rules or regulations, associated with the application. I also explained that you will receive all records that are considered responsive to your clarified request and that are not considered exempt by the Agency under the Washington State Public Records Act, 42.56 RCW. For those records that the Agency considers exempt, you will receive an exemption log.

3. You asked a question related to DVDs submitted to the Agency by PSE containing air modeling data.

I explained that Puget Sound Energy ("PSE") has submitted air modeling records and information on two different DVDs. The first DVD was submitted to the Agency in 2017 and the second DVD was submitted to the Agency in 2019. I explained that copies of the records located on the first DVD were provided to you previously. I have attached the e-mail that was originally sent to you with a link that will take you to copies of records located on the first DVD. I explained the second DVD has not yet been provided to you, but will be part of a future installment. You requested that production of copies of air modeling records and information located on DVDs submitted to the Agency by PSE be prioritized. I have uploaded copies of records located on the second DVD to the following link:

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

Please let me know if you have any trouble accessing the records at the link above. The records uploaded today to the link above will be available for download until 6/27/19.

If you had a different understanding from our conversation, please feel free to respond to this e-mail with correction or additional clarification.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101

KylePW@pscleanair.org

From: Kyle Ponton-Welty
Sent: Friday, May 24, 2019 10:58 AM
To: 'afuller@omwlaw.com'
Cc: Melody Simmons; Nicholas G. Thomas; Margaret M. Moynan
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller:

Regarding your 4/26/19 clarified records request, a second installment of records has been uploaded to the link below:

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

Please let me know if you have any trouble accessing the records at the link above. The records at the link above will be available for download until 6/23/19.

The Agency anticipates having a next installment of records available by 6/24/19. Please call or e-mail with any questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Kyle Ponton-Welty
Sent: Monday, May 6, 2019 3:34 PM
To: 'afuller@omwlaw.com'
Cc: Melody Simmons; Nicholas G. Thomas; Margaret M. Moynan
Subject: RE: Public Records Request - 4-26-19

Hello, Mr. Fuller:

Thank you for providing clarification.

The Agency needs to further clarify your request in the following ways:

1. Regarding your 2(b) clarified request of "any formal or informal guidance documents used by PSCAA when conducting its regulatory review of the LNG Project," these types of records may be exempt from production in part or whole and included on exemption logs. If responsive records are located to this portion of your clarified request that are not found to be partially or entirely exempt from production, the Agency will provide them to you.

2. Regarding the clarification you provided for 2(c), PSE submitted the NOC application for NOC 11386 on 5/22/17. Based on your language regarding the "pendency of PSCAA's review of PSE's application for permits and/or

approvals," the Agency understands your request to be for the date range 5/22/17 – 4/26/19. Please let me know if this is incorrect.

3. Regarding the clarification you provided for 3(a), unless you correct the Agency's understanding of your clarification, the Agency will consider your clarification to be confirmation that you are requesting only records that specifically relate to the "LNG Project" or review of the "LNG Project." Please let me know if this is incorrect.

4. Regarding the clarification you provided for 3(b), PSE submitted the NOC application for NOC 11386 on 5/22/17. When you wrote "the pendency," the Agency understands that you are referring to the date range 5/22/17 – 4/26/19. Please let me know if this is incorrect.

Please call or e-mail with any questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

From: Andrew S. Fuller [mailto:afuller@omwlaw.com]
Sent: Friday, May 3, 2019 9:44 AM
To: Kyle Ponton-Welty
Cc: Melody Simmons; Nicholas G. Thomas; Margaret M. Moynan
Subject: RE: Public Records Request - 4-26-19

Mr. Ponton-Welty,

Thank you for the clarifying questions regarding our PRA request submitted on April 26, 2019. Responses to your questions are inserted in-line below and are highlighted yellow. In response to your question numbered 1(b), a document is attached that contains a list of Puget Sound Energy affiliates. Please let me know if any further clarifications are necessary to allow your search for records to be as efficient as possible.

Best,
Andrew

Andrew S. Fuller | Attorney
Ogden Murphy Wallace P.L.L.C.
901 Fifth Avenue, Suite 3500, Seattle, WA 98164
phone: 206.223.2036 | fax: 206.447.0215
afuller@omwlaw.com | www.omwlaw.com

From: Kyle Ponton-Welty <KylePW@pscleanair.org>
Sent: Thursday, May 2, 2019 1:50 PM

To: Andrew S. Fuller <afuller@omwlaw.com>
Cc: Melody Simmons <msimmons@omwlaw.com>
Subject: Public Records Request - 4-26-19

Hello, Mr. Fuller:

The Agency is in receipt of the records request that you submitted on 4/26/19. I have attached the Agency's Public Records Disclosure Process and Policy, which includes information related to possible charges associated with records requests.

The Agency needs to clarify your request in the following ways:

1. Regarding your request for "All communications pertaining to the LNG Project, from December 20, 2017 to April 26, 2019, including but not limited to interoffice communications and communications with the following entities, their counsel, representatives, and agents: City of Tacoma; Puget Sound Energy and its affiliated entities (including Puget LNG, LLC); and any state, local, and federal agencies, including but not limited to, the Port of Tacoma, the Washington Utilities and Transportation Commission, the Washington Department of Ecology, and the U.S. Environmental Protection Agency":

    a. Are you requesting only communications between two or more individuals or entities regarding the "LNG Project"? Or, are you *also* requesting informal notes of communications that have not been sent or received, if any exist?

We are also looking for informal notes of communications that have not been sent or received, if any exist.

    b. Are there affiliated entities in addition to Puget LNG, LLC that you are specifically referring to when you state "Puget Sound Energy and its affiliated entities"? If there are, please provide the names of those specific entities so the Agency can search for responsive records regarding those entities, if any exist. As your request is currently written, the Agency cannot determine what specific entities, other than Puget LNG, LLC, you are referring to in this portion of your request.

Please see the attached list of affiliates.

    c. You can find some records that are responsive to this portion of your request on the Agency's webpage at the following link:

https://www.pscleanair.org/460/Current-Permitting-Projects.

2. Regarding your request for "All regulations, policies, manuals, and other writings controlling and/or relevant to PSCAA's regulatory review of the LNG Project":

    a. Here are links to: the Washington State Clean Air Act ("WACAA"); Washington Administrative Code ("WAC") 197-11; WAC 173-400; WAC 176-460; the Agency's regulations adopted pursuant to the WACAA; and the Agency's current Compliance Manual:

https://app.leg.wa.gov/rcw/default.aspx?cite=70.94;

https://apps.leg.wa.gov/wac/default.aspx?cite=197-11;

https://apps.leg.wa.gov/WAC/default.aspx?cite=173-400;

https://apps.leg.wa.gov/wac/default.aspx?cite=173-460;

https://www.pscleanair.org/219/PSCAA-Regulations;

https://pscleanair.box.com/s/o73w1yo06ujr4itmpdouekiq0l75jvn2.

All of the above may be applicable in whole or part to the Agency's review of the "LNG Project." In addition, as the Agency's review of the "LNG Project" continues, additional state and federal regulations and/or requirements may be relevant to or considered by the Agency. Without waving any exemptions or privileges, records in addition to the above may be identified and produced pursuant to this request. Without waving any exemptions or privileges, there also may be case law interpreting or applying the above (or additional) authorities relevant to the Agency's review of the "LNG Project." However, such case law either has not been identified by the Agency at this time, and is not an existing record, or will be addressed, if any exist, in exemption logs to be produced.

b. Please provide clarification for what specific records you are describing as "controlling and/or relevant to PSCAA's regulatory review of the LNG Project." Other than the authorities identified in (a) above, the Agency cannot determine what you may believe is relevant or controlling in the Agency's "regulatory review of the LNG Project" and therefore cannot determine what is being requested. Are there other specific records that relate to the proposed "LNG Project" that you are requesting?

Beyond the statues, regulations, policy documents provided, we are interested in any formal or informal guidance documents used by PSCAA when conducting its regulatory review of the LNG Project.

c. Is there a date range that you would like to apply to this portion of your request?

We are seeking "all regulations, policies, manuals, and other writings" that are, or were, applicable throughout the pendency of PSCAA's review of PSE's application for permits and/or approvals regarding the LNG Project.

3. Regarding your request for "All communications with state and federal agencies, their counsel, representatives, and agents providing directives or guidance as to PSCAA's exercise of its regulatory authority":

a. Are you requesting only records that relate to the proposed "LNG Project"? Or, are you also requesting records that do not relate to the proposed "LNG Project"?

We are seeking records related to the LNG Project and also records providing directives or guidance as to PSCAA's exercise of any statutory/regulatory authorities applicable to the review of Project.

b. Is there a date range that you would like to apply to this portion of your request?

We are seeking "all communications with state and federal agencies, their counsel, representatives, and agents providing directives or guidance as to PSCAA's exercise of its regulatory authority" that are, or were, applicable throughout the pendency of PSCAA's review of PSE's application for permits and or approvals regarding the LNG Project.

4. The Agency understands that, as part of your request, you are requesting an exemption log describing records and/or information that the Agency believes are exempt from production. Please let me know this is incorrect.

You are correct, please provide an exemption log.

At this time and without clarification from you, the Agency anticipates having responsive records available by 8/30/19, with a first monthly installment available by 5/31/19. Clarification provided by you may also require the Agency to amend this production estimate.

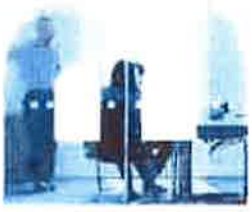
Please call or e-mail with any questions.

Thank you,

Kyle Ponton-Welty, CPRO | Records Administrator
Puget Sound Clean Air Agency
Direct: 206.689.4040 | Fax: 206.343.7522
1904 3rd Ave, Suite 105 | Seattle, WA 98101
KylePW@pscleanair.org

ATTACHMENT 4

BRAEMAR



Tacoma LNG Fire and Safety Review

Braemar Technical Services

Report Number : BEP1251-05
Revision : 5

Final
Date: 02 July 2018

Prepared for:
The City of Tacoma Fire Department

AUTHOR	CHECKED	APPROVED
		
Alan Hatfield	Ken Nasit	Constantyn Gieskes

Revision History			
Revision	**Date**	**Detail**	**Author**
1	7/28/17	Draft Issued to Client	A. Hatfield
2	8/22/17	Update	A. Hatfield
3	9/26/17	Add P&ID Review	A. Hatfield
4	11/1/17	Client Review – TFD Received 6/14/18	A. Hatfield
5	7/2/18	Final Issued	A. Hatfield

adsorber pressure vessels with one in adsorption mode, and the other in regeneration or standby. Once saturated with water, the process is designed to switch vessels to allow alternating vessels to be in adsorption mode while the other is regenerated for a continuous uninterrupted operation. For regeneration, heated gas is routed from a gas heater through the saturated mol sieve at high temperature which regenerates by heating adsorbed water to steam and carried away in the regeneration gas outlet. If actual H_2O concentrations were to exceed the removal design capability, H_2O carryover to the liquefaction process would occur causing ice builds-up in cryogenic exchangers. This does not create an unsafe condition, but process differential pressure will slowly increase, production rates decrease proportionally, and eventually a point will be reached where the process must be shutdown to defrost clogged exchangers.

A molecular sieve filter is comprised of adsorption material consisting of inert clays, porous glass and other material that have open structures through which small molecules, such as nitrogen and water can diffuse. Methods for regeneration of molecular sieves include pressure change, heating and purging until adsorbed material is released. Natural gas used for regeneration will be is returned to the saturated process stream exiting the amine contactor. The H_2O pretreatment removal capacity at Tacoma LNG is greater than the highest concentrations that may be present in supply gas, and carryover to liquefaction is very unlikely to occur. An analyzer constantly monitors the natural gas stream after dehydration for H_2O concentrations in the gas, and will alarm in the control system if the 1 ppmv threshold has been exceeded.

The Tacoma LNG dehydration system was found to be designed in accordance with applicable codes and standards.

Accident at Williams Pipeline LNG Plant, Plymouth, Washington: On March 31, 2014, a serious accident occurred at the Williams Pipeline LNG Peak Shaving Plant in Plymouth, Washington. A molecular sieve adsorber pressure vessel and associated piping catastrophically failed between the adsorber vessel and the gas bath heater. Five (5) employees were injured and treated on site and one (1) employee was flown to the hospital for additional treatment with burns. An emergency shutdown was activated, plant personnel were evacuated, precautionary evacuations of the public near the facility, and significant property damage occurred. According to the PHMSA accident report dated April 28, 2016 the accident was caused by "*Operator Error - Vessel and piping failure from detonation caused by internal auto-ignition due to a purge that failed to remove a gas-air mixture from the system*". The root cause was the system had been opened for maintenance earlier, and was not properly purged of air prior to natural gas being reintroduced, and system placed back in service.

The accident at Plymouth LNG was a major wakeup call to the natural gas industry and had significant impact on training and hazard awareness in industry operating and maintenance practices. The accident reinforced the most fundamental rule for safe handling and storage of natural gas by pipeline or containment vessel, which is the avoidance of a gas-air mixture in a confined space under all conditions. Proper purging of pipelines and vessels with inert gas, typically nitrogen, is a critical step when taking these components out of service, or placing back in service to prevent a gas-air mixture in a confined space from ever occurring, under all operating conditions. This is a gaseous fuel issue, not an LNG issue, but includes all uses of flammable gases in a confined space. Operator training for safe handling of flammable gas is the key to prevention of this unsafe conditions.

4.3 LNG Liquefaction

For producing LNG liquid from natural gas there are multiple patented, licensed, and open source technologies commercially available that come in various capacities and efficiencies. LNG

chemical extinguisher with 150' hose reel is located at the vaporizer area, in addition to a 300-lb wheeled dry chemical extinguisher

Figure 10 – Example LNG Truck Tanker Loading Operation

4.7 Underground LNG Line in Tunnel

The dedicated tunnel connecting Tacoma LNG and the Blair Waterway dock will be installed within an easement from the Port of Tacoma on land leased by TOTE Maritime Alaska located at 500 E Alexander Ave, the operator of the TOTE cargo terminal. An LNG pipe tunnel, a more expensive option than above ground installations, will provide a casing for the installation of vacuum jacketed (pipe-in-pipe) LNG and vapor pipe supported inside the nitrogen purged tunnel. The tunnel also includes utilities and control system cables required at the Blair Waterway Dock. The pipe tunnel will be installed by horizontally drilling and excavating at depth, not open cut, to avoid disrupting trailer terminal operations during construction or future operations.

The underground pipe tunnel was found to be designed in accordance with LNG codes & standards. The design is considered robust, and no credible unmitigated failure scenarios were identified. Several additional layers of protection exist in the design to prevent the possibility of unsafe conditions. Vacuum jacketed (VJ) pipe in the casing is fully welded to avoid potential leaks at mechanical connections. In the unlikely event a leak occurs in the inner pipe; secondary containment of the fluid will be provided by the integral outer stainless steel pipe jacket with excess pressure routed through the vapor return line to the LNG circulation line. The tunnel casing has a continuous nitrogen purge to maintain a non-flammable environment and no ignition sources are present. Instruments monitor the casing for the presence of gas vapor and cold liquid and immediately alarm in the control room if detected. The underground tunnel is monitored from the plant control system to ensure process conditions are operating within normal parameters. Similar design concepts have been approved and successfully implemented at other US LNG projects where above ground LNG piping was not suited to the site-specific conditions.

Firewater protection system consists of buried and above ground pipe, fire hydrants, monitors, and 300-lb. dry chemical extinguisher is located at both ends of the tunnel.

Eight (8) 300 lb wheeled dry chemical units with 100-foot reel hoses are provided at the following locations in Tacoma LNG:

- TOTE Bunkering Dock Platform Area
- Truck Loading area
- Pretreatment Heater Area
- Vaporizer Area
- Liquefaction Area
- Process Area Collection Sump
- Tunnel End Vault – Facility Side Sump
- Tunnel End Vault – Blair Dock Sump

Figure 27 shows the layout and coverage areas for stationary 300 lb and 1,500 lb dry chemical extinguishing units in the main facility and TOTE dock areas:

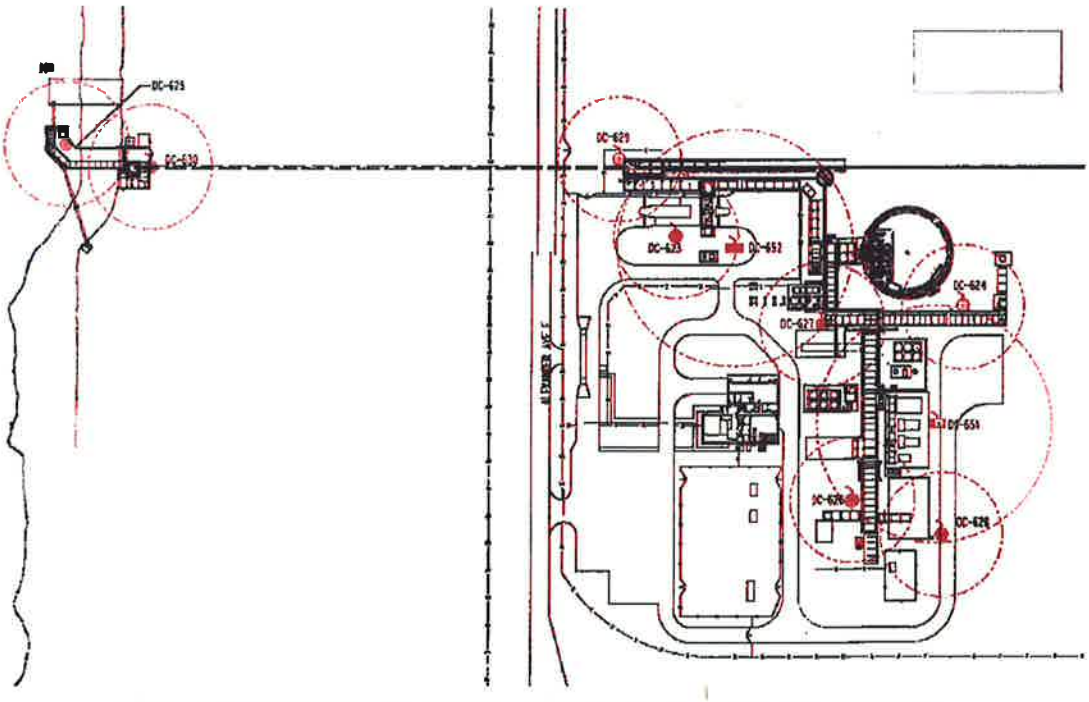


Figure 27 - Stationary Dry Chemical Extinguisher Layout and Coverage

8.2.4 Portable Dry Chemical Extinguishers

Handheld dry chemical fire extinguishers with 20 lb capacity are located per NFPA 10 throughout the Tacoma LNG facilities for fighting small fires.

8.2.5 LNG Tank PSV Fire Suppression

The Tacoma LNG storage tank design has nitrogen snuffing for each LNG tank top pressure relief valve (PSV) vent stack. This fire suppression system is to protect the concrete covered metal tank roof from excess radiant heat from a potential PSV fire, if ignited when discharging. This system is monitored by heat sensors that alarm through the control room fire panel and siren/beacon

output. If a fire is confirmed, the system is manually activated by an operator. Activation discharges nitrogen to the outlet of the relief valve exhaust stack in sufficient quantity and duration for PSV fire to be snuffed by displacing flammable vapor, but does not restrict the relief valve capacity.

8.2.6 CO_2 Fire Suppression

Purple K and Carbon dioxide (BC Class) extinguishers, are located in occupied buildings, warehouse and compressor building. Purple K are the greatest majority, and suited for hydrocarbon fires.

8.3 Hazard Detection

Evaluation:

The Tacoma LNG design includes a wide-ranging hazard detection system; with fire, gas, and spill detection as required by NFPA 59A. The type, quantity, and location of equipment necessary for the detection of fires, leaks, and spills of LNG, flammable refrigerants, or flammable gases are adequate and appropriate and shown in Figure 28 and Figure 29.

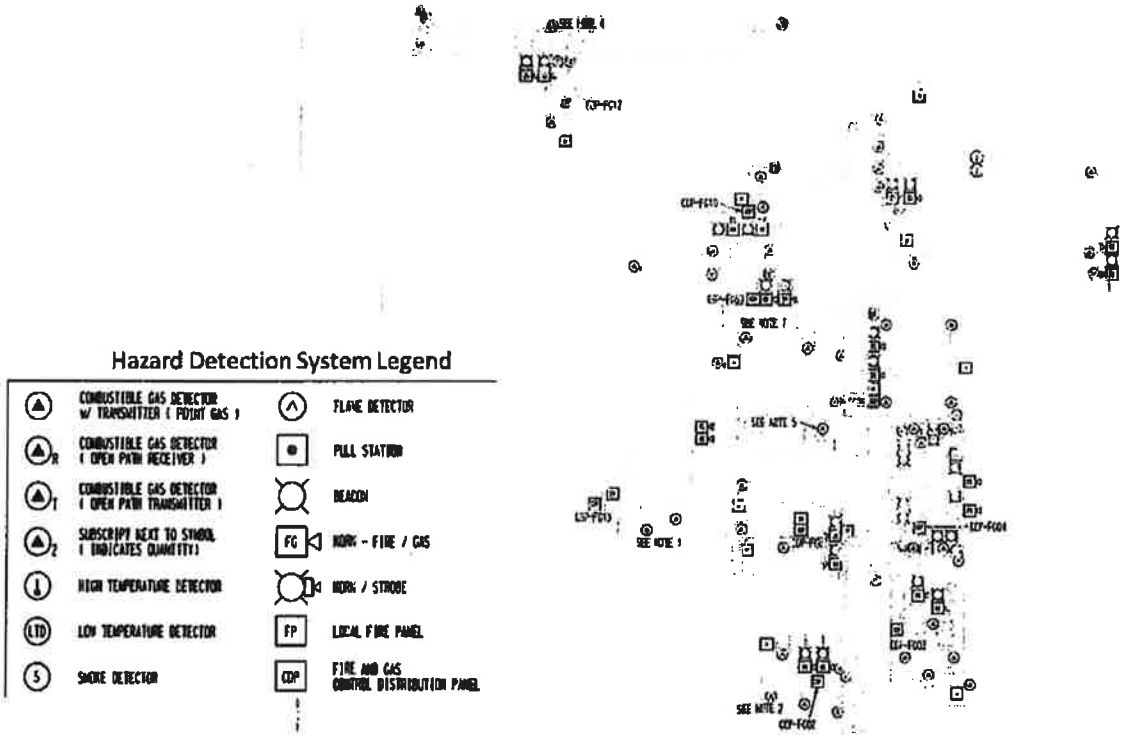


Figure 28 - Hazard Detection System Layout - Main Plant Area

ATTACHMENT 5

Delivered via email

April 18, 2019

Mayor Victoria Woodards
Councilmembers
City of Tacoma
Tacoma Municipal Building
747 Market St., Suite 1200
Tacoma, WA 98402

RE: Recommendation to initiate a supplemental review of the proposed LNG plant

Dear Mayor Woodards and Councilmembers:

Pursuant to our authority under Tacoma Municipal Code 1.29 (TMC 1.29), and for the reasons set forth below, we, on behalf of the Tacoma Human Rights Commission (Commission), strongly recommend that you request the City of Tacoma to initiate a Supplemental Environmental Impact Statement (SEIS) review of the Liquefied Natural Gas (LNG) plant proposed for the Tideflats. Based on information available on the City's website, we believe Tacoma, as the lead SEPA agency[1], would be justified in undertaking the SEIS. This would allow the City to consider up-to-date, critical new information on the proposed LNG plant's potential risks, including those bearing on the human rights of two often marginalized groups in our community: the Puyallup Tribe and immigrants detained at the Northwest Detention Center (NWDC).

The Commission's Human Rights Mission and the Proposed LNG Facility

The Human Rights Commission's mission statement provides for it to, among other things, "study and investigate problems of prejudice, bigotry and discrimination, and to encourage and coordinate the implementation of programs consistent with the needs and rights of all residents of the City of Tacoma." TMC 1.29.010. The code empowers the Commission to "[s]tudy, investigate, mediate, and hold public meetings on community-wide problems arising in the City of Tacoma which may result in intergroup tensions or discrimination," including on the basis of "race [and] national origin or ancestry[.]" TMC 1.29.020.3.

To fulfill this mission, the Commission may consult with "national origin groups, community organizations concerned with interracial, interreligious and intercultural understanding, social welfare organizations, and any other such organizations and institutions … the Commission shall deem advisable to further the objectives of this chapter." TMC 1.29.020.4. The Commission has

[1] The City of Tacoma is the designated State Environmental Policy Act (SEPA) agency. https://cms.cityoftacoma.org/planning/pse/Tacoma%20LNG%20FEIS%20Summary%20(5-5-16).pdf

a duty to "[m]ake written recommendations to the Mayor, the City Council, City Manager, and City department heads toward the development and implementation of programs and practices for the purpose of furthering the objectives of this chapter." TMC 1.29.020.5.

The Tribe and the City disagree on whether they engaged in meaningful consultation during the 2014-2015 period regarding the proposed LNG plant, although all concur that the 1990 Land Claims Settlement requires such consultation. Omitting the Tribe from more integral involvement in the City's 2014-2105 EIS scoping and drafting process, regardless of the legalities, appears inconsistent with the spirit of TMC 1.29's race and national origin/ancestry protections. The Commission believes that addressing this disagreement by recommending a City SEIS aligns with its codified human-rights mission to help resolve intergroup tensions within the Tacoma community.

Further, as new data and information show, the operation of the LNG facility would potentially expose the South Sound community to grave environmental risks and potentially subject Tribal members and NWDC detainees, in particular, to a disparate environmental impact in violation of their human rights. Many Tribal members live in the areas directly surrounding the proposed LNG plant so are more likely to be adversely affected by the vapors, pollution, and other emissions that such a facility could create. The additional marine traffic and other environmental changes generated by his project are likely to impact the salmon-fishing industry so vital to the Tribe, and to pose an imminent threat to other traditional cultural practices that Tribal members carry forth today. The Commission therefore recommends requesting the City to initiate the SEIS process immediately to review potential environmental hazards and human-rights injustices to vulnerable community members residing in the Tideflats area.

Lack of Meaningful Consultation during the 2014-2015 EIS Process

- **Consultation with the Tribe was required regarding the proposed LNG plant**

Congress approved the Puyallup Tribe of Indians Settlement Act in 1989[2] and the following year, consistent with such law, the Puyallup Tribe, along with the City of Tacoma and several other local governmental entities, signed the 1990 Land Claims Settlement.[3] It "requires the City to consult with the Tribe on land use matters" involving the Tideflats, as Tacoma expressly recognized in the 2018 Tideflats Plan Resolution.[4] As part of this consultation process, the Settlement's technical procedures regarding land-use proposals specifically require the City to provide the Tribe with "a summary of the request, a copy of the project plans, any environmental documents, and any other pertinent information filed in conjunction with the application."[5] This language appears to call for greater consultation than one or two communications during a public-

[2] https://www.congress.gov/bill/101st-congress/house-bill/932/text

[3] https://www.upi.com/Archives/1990/03/24/Historic-Indian-treaty-signed-to-settle-land-claims/2082638254800/

[4] Resolution 40113, Req. 18-1114, p. 1 (passed 9/25/18), https://cms.cityoftacoma.org/Planning/Tideflats/Subarea%20Plan/Resolution%2040113.pdf

[5] *See* 1990 Land Claims Settlement, Sec. VIII.C.a-k ("Future Consultation between the Tribal Government and Local Governments"), pp. 57-58, & Technical Documents, Document 7, Sec. C.3.a ("Procedures"), pp. 170-171 https://babel.hathitrust.org/cgi/pt?id=pst.000018284096;view=1up;seq=2,

comment period.[6] In addition, Washington state law mandates governmental entities to "[i]dentify and resolve key land use conflicts along the edge of the core area, and minimize and mitigate, to the extent practicable, incompatible uses along the edge of the core area."[7]

Tacoma's Priorities and LNG Project have Changed Substantially since 2014-2015

Since the City conducted the 2014-2015 EIS scoping and preparation process, the City has broadened and elevated its environmental priorities through a 2016-2020 Environmental Action Plan (EAP).[8] In the past few years, the scope and details of the project have changed in ways that are inconsistent with Tacoma's proclaimed environmental goals, particularly given new scientific research on greenhouse gas emissions, which indicate that LNG production will have greater and more adverse effects on the environment than was understood in 2014. The City's current EAP seeks to protect the right to clean air and water for all Tacomans and to restore the damage to shorelines and wildlife. Tribal members and NWDC detainees, as members of long-marginalized groups, particularly merit attention to and respect for their rights.

The potential damage to shorelines and marine ecosystems caused by projects like the LNG plant would be an assault on the very culture of the Puyallup Tribe, which has existed on this land Since Time Immemorial, and its operation could destroy the Tribe's traditional way of life. Many environmental and social justice organizations stand with the Tribe in opposing the proposed LNG plant. In a joint statement issued on April 2, 2019, following the release of PSCAA's flawed March 29 SEIS, a broad coalition of more than a dozen such groups amplified the Tribe's call for the City of Tacoma and the Washington Department of Ecology to initiate a supplemental environmental review of the proposed facility.[9]

According to the City's own webpage detailing the status of the LNG project and providing information responsive to "Frequently Asked Questions," the City can initiate the SEIS based upon "actual data showing substantial changes to a proposal such that the proposal is likely to have significant additional adverse environmental impacts" or "new factual information indicating a proposal's probable newly discovered significant adverse environmental impacts."[10] In light of the above, as well as the information detailed below, both criteria appear to be met, although either one, alone, would be sufficient according to the webpage.

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[6] The City provided the Commission with a September 14, 2014, email sent during the EIS scoping public-comment period to various recipients including the Tribe. The City's 2015 EIS Appendix also includes two August 2015 letters from the Tribe to the City during the draft EIS public-comment period. The Tribe does not believe that such communications constituted the consultation required by the 1990 Land Claims Settlement. *See* 2/21/19 and 3/21/19 Comments of Annette Bryan, Tribal Council Representative, to the Commission; *see also* March 29, 2019, Puyallup Tribe press release regarding PSCAA final SEIS, http://news.puyalluptribe-nsn.gov/puyallup-tribe-rejects-flawed-new-review-of-tacoma-lng/?fbclid=IwAR21cs7f6UYjwgHXQGp3GeK6dcWdgP3fmD5OqLYQktPCy116dgxwJHCf264

[7] RCW 36.70A.085(3)(c).

[8] https://cms.cityoftacoma.org/Sustainability/Tacoma_EAP.pdf

[9] https://wecprotects.org/tacoma-lng-facility-eis/?fbclid=IwAR1p0E5sCDto9iPLB8Uo0K_wJT5L_OAVwH-ZbAalAznqs0ybWiArj2naJEs

[10] https://www.cityoftacoma.org/cms/One.aspx?portalId=169&pageId=154554

For example, since the 2014-2015 EIS process was completed, the following events have occurred:

- In 2016, The City of Tacoma adopted its 4-year EAP to
  - Sustain and improve Tacoma's natural environment.
  - Ensure that all Tacomans have access to clean air and water, can experience nature in their daily lives and benefit from low-impact development.
  - Foster appreciation and stewardship of wildlife and natural resources.
  - Restore damaged shorelines and marine ecosystems and protect salmon habitat along the many rivers and streams that flow into Commencement Bay[11];

- In the 2016-2020 EAP, the City noted that

  - "The concentration of greenhouse gases in the atmosphere is projected to increase dramatically over the rest of the 21st century absent changes in policies and practices to substantially reduce those emissions," and the City must "[i]dentify which public infrastructures and facilities are at unacceptable risk from climate change" and adapt accordingly[12];

- In April 2017, PSCAA issued the PSE "a Notice of Violation for failure to obtain a Notice of Construction approval prior to construction"[13];

- On January 24, 2018, PSCAA notified PSE that it was required to undertake its own Supplemental Environment Impact Statement, "to identify and analyze greenhouse gas (GHG) emissions and impacts for this Notice of Construction (NOC) to supplement" what was in the City's 2015 EIS [14];

- On October 8, 2018, PSCAA issued a draft SEIS for public comment which generated critical responses from many organizations and entities including the Washington State Attorney General and the Washington State Department of Ecology, and its March 29, 2019, final SEIS contains many of the same flaws[15];

- In a November 21, 2018, public-comment letter, the Attorney General criticized the draft PSCAA SEIS for assuming that "all gas associated with the Project will come from Canada, and bases its calculations on the assumption," without explaining why that source

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[11] https://cms.cityoftacoma.org/Sustainability/Tacoma_EAP.pdf., p. 19.

[12] *Id.*, p. 27

[13] https://tacomaweekly.com/news/puyallup-tribe-calls-pse-out-for-lng-work-without-permit/; https://www.thenewstribune.com/news/local/article186435953.html

[14] https://www.pscleanair.org/DocumentCenter/View/3124/LTR-to-PSE-re-NOC-Process-and-SEIS-w-Encl-1-24-18?bidId=

[15] PSCAA draft SEIS https://www.pscleanair.org/DocumentCenter/View/3482/Draft-Supplemental-EIS-Tacoma-LNG-October-8-2018?bidId=; https://assets.documentcloud.org/documents/5689670/Letter-to-PSCAA-CEP.pdf; https://assets.documentcloud.org/documents/5689676/Letter-to-PSCAA-WDOE.pdf; PSCAA final SEIS https://www.pscleanair.org/DocumentCenter/View/3616/Tacoma-LNG-FSEIS-032919?bidId=; Joint Statement on PSCAA final SEIS https://wecprotects.org/tacoma-lng-facility-eis/?fbclid=IwAR1p0E5sCDto9iPLB8Uo0K_wJT5L_OAVwH-ZbAalAznqs0ybWiArj2naJEs

would remain constant for the 40-year lifespan of the facility "especially as United States natural gas production has increased substantially in recent years"[16];

- In that same public comment, the Attorney General also criticized the PSCAA draft SEIS for "evaluat[ing] a No-Action Alternative that can only be described as fictional" because the draft SEIS did not "acknowledge that construction" on the LNG site had continued to the present despite the PSCAA's April 2017 Notice of Violation for failing to obtain a Notice of Construction,[17];

- The final SEIS issued by PSCAA on March 29, 2019, warns that "actual realized fugitive emissions from natural gas production in the United States appear to be 60 percent higher than published fugitive emission factors (Alvarez et al. 2018),"[18] and Canadian sources have more GHG emissions than the PSCAA SEIS, which recommended sole-sourcing from Alberta/British Columbia, acknowledged[19];

- In addition, engaged organizations and citizens in our community have raised these and other concerns about the proposed plant including the following:

    - According to a 2016 scientific research letter estimated that methane production from fracking will be 20-25% higher than previously estimated[20] and a local climate-change group, based on this article and other research, estimates that greenhouse gas emissions from methane gas produced by fracking will exceed that for coal over a 20-year period than because methane is 86 times worse than carbon dioxide[21];

    - Changed assumptions, based on the PSCAA SEIS, include an increase in the number of ships to be fueled at the LNG facility, and bunkering and onsite-restoration/offset activities occurring on the Blair Waterway instead of on the Hylebos Waterway.[22]

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[16] https://assets.documentcloud.org/documents/5689670/Letter-to-PSCAA-CEP.pdf

[17] *Id.* PSCAA's final SEIS, issued on March 29, 2019, retained the assumption of "no action alternative" – despite the ongoing construction at the site – thereby effectively dismissing the Attorney General's concerns as unimportant. *See* discussions of the "no action alternative." https://www.pscleanair.org/DocumentCenter/View/3616/Tacoma-LNG-FSEIS-032919?bidId=

[18] https://www.pscleanair.org/DocumentCenter/View/3616/Tacoma-LNG-FSEIS-032919?bidId=, p. 4-11

[19] *Id.*, pp. 3, 2-1, 4-11; https://davidsuzuki.org/press/b-c-lng-announcement-ignores-magnitude-fracking-climate-pollution ("Peer-reviewed research from the David Suzuki Foundation confirms that fugitive methane emissions from B.C.'s oil and gas industry — emitted during fracking for LNG — continue to be vastly underreported by government and industry").

[20] "Radiative forcing of carbon dioxide, methane, and nitrous oxide: A significant revision of the methane radiative forcing," https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2016GL071930

[21] https://www.scientificamerican.com/article/how-bad-of-a-greenhouse-gas-is-methane/; https://www.350tacoma.org/pselng/

[22] https://cms.cityoftacoma.org/planning/pse/Reissued%20Final%20Tacoma%20LNG%20EIS%20(11-9-15).pdf; https://www.pscleanair.org/DocumentCenter/View/3482/Draft-Supplemental-EIS-Tacoma-LNG-October-8-2018?bidId=

Conclusion

In 2018, the City entered a new, more productive, relationship with the Tribe, as reflected by the Tideflats Agreement, the designation of Indigenous Peoples' Day, and permanent installation of the Puyallup Nation flag on the City Council dais. If the City and Tribe are to remain strong allies, and the City recognizes that its commitment to human rights must include environmental justice for vulnerable populations, then the City has an important opportunity to show respect for such groups and strengthen this new relationship with the Tribe by initiating a Supplemental Environmental Impact Statement regarding the proposed LNG plant.

In that spirit, and based on the information and authority set forth above, The Commission strongly and respectfully recommends that you request the City to initiate a supplemental review as soon as possible, particularly because PSCAA, having now issued its widely-criticized SEIS in final, may grant PSE a Notice of Construction Permit in the next few weeks.[23] The City's SEIS should consider the potential environmental hazards and human-rights injustices to vulnerable, frequently marginalized populations in and near the Tideflats area, particularly Puyallup Tribal members and detainees housed at the Northwest Detention Center.

Thank you for considering the Commission's recommendations regarding this vital matter of human rights and environmental justice.

Respectfully submitted,

s/*Michealea Lemons*, Chair
s/*Melvin Nobles, Jr.*, 1st Vice Chair

On behalf of the Tacoma Human Rights Commission

[23] https://www.pscleanair.org/460/Current-Permitting-Projects