



February 27, 2023

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Brittany Flittner  
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**RE: Comments on Proposed WAC 173-180/184 Rulemaking**

Dear Ms. Flittner,

HF Sinclair Puget Sound Refining LLC appreciates the opportunity to comment on the Washington State Department of Ecology (Ecology) proposed rulemaking (CR-102) for amendments to WAC 173-180 (Facility Oil Handling Standards) and WAC 173-184 (Vessel Oil Transfer Advance Notice and Containment Requirements).

**General Comments**

**Need for Detailed Cost Analysis.** It is concerning that no analysis was provided in the Preliminary Regulatory Analyses (dated January 2023 – Publication 23-08-001) regarding the direct costs of replacing or making significant changes to large secondary containment systems currently in place at Tier 1 facilities pursuant to WAC 173-180-320(1)(c). In addition, Ecology staff indicated during CR-101 consultation meetings and workshops that a cost analysis of proposed WAC 173-180-330 control measures to be installed at existing Tier 1 facilities would not be performed by the agency. The costs to comply with the proposed changes could be significant and take several years to complete.

**Risk Analyses Should Precede Control Measures.** As written, the proposed rule language would have a facility complete a formal risk analysis (pursuant to WAC 173-180-630) after and independent of seismic control measure requirements (pursuant to WAC 173-180-330). Facilities should be able to assess the full scope of any equipment and operational changes through completion of a risk analysis in order to properly determine the effective and safe installation of any seismic-related tank, pipe, and/or containment modifications/upgrades. The



proposed rule language should clearly address the role of the risk analysis process in determining the need for additional control measures.

**Timeline Inadequate.** The timeline to comply with the proposed changes to 173-180 has not been completely and thoroughly addressed by Ecology. For example, containment and/or control system modifications pursuant to the proposed changes to WAC 173-180-320 and WAC 173-180-330 could take years to complete. Ecology needs to provide stakeholders with guidance on implementation of rule changes and provide a grace period so that facilities have a realistic timeline to complete these secondary containment changes or upgrades. Furthermore, Ecology should provide facilities with sufficient time after rules go into effect to complete requirements related to secondary containment permeability measurements, seismic/hydrostatic calculations and spill risk analysis in updating spill prevention plans.

### **Specific Comments**

#### **WAC 173-180-215 (Advanced Notice of Transfer)**

The requirement to update the start time of the oil transfer operation if the start of transfer operations changes by more than 6 hours is unreasonable. The requirement would place undue burden on a Person-In-Charge (PIC) who should be focused on safe transfer operations. This burden and distraction can increase the risk for leaks/spills and is not consistent with USCG's requirements of the PIC's responsibility during transfer operation. Recommend the requirement to update be made as soon as practicable or no later than 24-hour notice.

#### **WAC 173-180-217 (Equivalent Compliance Plan)**

The Equivalent Compliance Plan option to comply with requirements in WAC 173-180-221 and 173-180-222 while factoring in site/location specific conditions is helpful and appreciated.

#### **WAC 173-180-221 (Rate A prebooming requirements and Rate A alternative measures requirements)**

The WAC 173-180-221 requirement to completely surround the vessel and facility/dock area in oil transfer operation is not consistent with USCG requirements. The one-hour requirement to pull boom can present significant risk to personnel especially if weather/tidal



conditions were to change during boom deployment. Submission of follow-up Ecology Boom Report Forms every 6 hours is not consistent with the USCG's requirements for the PIC's responsibility and would place undue burden on the PIC who should be focused on a safe transfer operation. We recommend aligning with the USCG requirement so there are no discrepancies and confusion and that the submittal requirement of follow up boom report forms be made as soon as practicable or within 24 hours.

**WAC 173-184-115 Rate A prebooming and Rate A alternative measures requirements**

WAC 173-184-115 (6)(c) provides clarity on pre-booming requirements when multiple oil transfers are occurring, especially on the portion of transfer that is appropriate to pre-boom. In addition to the requirements of safe and effective and that pumping is complete for the product that is not appropriate to pre-boom, more clarity and specificity has been provided on the requirement of at least three hours remaining in transfer which is appreciated.

**WAC 173-180-224 (Safe and effective threshold determination)**

We do not agree with the new requirement for supporting data to be no more than 10 years old from the date of the safe and effective threshold determination report, especially if surrounding conditions remain unchanged. In addition, while it makes sense to include "weather" equipment in making that determination, facilities should not be required to provide on-site "water" conditions/velocity measurements as even NOAA is not doing this on or near the site in real time and any instrumentation from the dock would be inaccurate due to vessel/berth shadowing.

**WAC 173-180-320 (Secondary containment requirements for aboveground storage tanks)**

Risks due to seismic events or forces are described in the facility risk analysis required by WAC 173-180-630. As stated previously, the risk assessment process should guide evaluation and adoption of seismic-related improvements and upgrades. Concerns with the seismic protection requirements for secondary containment are provided below:

- (i) The proposed rules don't define the terms "seismic event" and/or "seismic forces."



- (ii) It is yet not clear what Richter Scale earthquake or magnitude of tsunami is considered significant by Ecology. This needs to be identified and clarified before secondary containment design can be consistent with the proposed rule.
- (iii) Risks due to seismic events or forces are described in the facility risk analysis required by WAC 173-180-630. As stated previously, the risk assessment process should guide evaluation and adoption of seismic-related improvements and upgrades.

**WAC 173-180-330 (Storage tank requirements)**

As discussed above, we believe that the risk analysis and the required evaluation therein of measures that will protect against identified seismic risks should be used to determine whether additional measures are needed, and if so, what those measures will be. In particular, we have the following concerns with the seismic protection requirements prescribed for storage tanks.

- (i) Ecology is asking for adoption of API 650 Annex E without a clear definition of seismic event/forces.
- (ii) Industry has seen several instances of failure in flexible bellows style piping connectors. Use of bellows style piping connectors may increase the potential spill risk for facilities.
- (iii) Other methods of compliance to existing storage tanks are not feasible or prohibitively expensive (foundation driven pilings, anchored storage tanks, compliance with API 650 Annex E).
- (iv) Historically, in earthquake prevalent areas, API 650 Standard tanks have not sustained damage regardless of age (earthquake standards were included in API 650 in 1978).
- (v) Risks due to potential earthquakes are described in the facility risk analysis required by WAC 173-180-630. As stated previously, the risk assessment process should guide evaluation and adoption of seismic-related improvements and upgrades.

**WAC 173-180-630/650 (Class 1 facility—Prevention plan content requirements, Prevention plan review and approval process)**

Concerns with the plan preparation and plan content requirements for Prevention Plans, including secondary containment permeability and facility spill risk analysis criteria are described below:



- (i) The new WAC 173-180-630(10)(g) states that each plan must describe spill prevention technology currently installed and in use, including; “Secondary containment, capacity, permeability, and material design. Permeability must meet requirements in WAC 173-180-320(1)(e).” The proposed language however does not contain any specific numerical reference to permeability, or criteria outlining acceptable limits or benchmarks.
- (ii) Ecology should grant sufficient time after the rule goes into effect for facilities to make permeability measurements. A credible sampling plan to measure permeability data will need time, resources and planning given the presence of utilities/pipelines present in tank farms. For facilities with plan updates coinciding with final period of rulemaking, Ecology should grant additional time to complete permeability measurements that comply with final rule language and guidance on sampling requirements. The permeability evaluation should take into account other factors beyond the soil permeability measurement such as response time and capabilities of a facility to recover a spill, the viscosity of oil that spilled, depth of water table and location of surface water relative to spill area etc, all of which could reduce risk of hydrocarbon infiltration to ground or surface water.
- (iii) For facilities that have an SPCC or OSP plan update that coincide with period of rulemaking, Ecology should grant additional time to submit spill risk analysis so as to conform with requirements in the final rule language.
- (iv) Related to plan review and approval process, it is unclear why the prevention plan submission date has been changed to 120 days from the current submission requirement of 65 days. However, the provision that the facility may request Ecology review the plan currently on file at Ecology is helpful and appreciated.

If you have any questions regarding our comments, please contact Dr. Gautam Kini at [gautam.kini@HFSinclair.com](mailto:gautam.kini@HFSinclair.com)

Sincerely,

A handwritten signature in blue ink, appearing to read "Aaron Vahid".

Aaron Vahid

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