Attachment A - Port of Seattle – Appendix to Clean Fuels Program Rule comment letter

Chapter 173-424 WAC, Clean Fuels Program Rule

WAC 173-424-110, Definitions (pages 1-16)

- Section 8 (page 2), Alternative Jet Fuel: definition of Alternative Jet Fuel states that "Alternative jet fuel includes those jet fuels derived from co-processed feedstocks at a conventional petroleum refinery." The Port only supports this definition that includes co-processing **if** the methodology outlined in WAC 173-424-600 (Page 70) is restricted to carbon-isotope analysis only. See comments related to that page and section below.
- Section 30 (page 3), Cargo Handling Equipment: the proposed definition excludes yard trucks. Yard trucks are a significant use at port facilities, operating multiple shifts, with hundreds of vehicles in operation. Yard trucks are also used with many other commercial operations and are an ideal candidate for alternative fuel deployment. We strongly recommend inclusion of yard trucks within the Clean Fuels program. As written, they are specifically excluded. Yard trucks should either be included in the definition of Cargo Handling Equipment or a separate definition should be added for Yard Trucks (similar to California). In addition, "cranes" should be included in the list of types of Cargo Handling Equipment.
    - Reference: California LCFS: RESO 18-34 LCFS Attachment A Final Reg Order (ca.gov), see definitions for "Cargo Handling Equipment" and "Yard Trucks."
- Section 57 (page 5), Ground Support Equipment: defines eGSE and distinguishes them from eCHE, eOGV, and eTRU, but isn't listed on page 15 with the other e-related abbreviations.

WAC 173-424-210 (pages 21-22)

- Section 1, Applicability: "hydrogen" is noted as an applicable "fossil and bio-based" fuel, but is silent on electrolytic hydrogen, as well as the state (gaseous compressed, liquid) of the fuel. Clarification should be made to include electrolytic hydrogen as well as compressed and liquified hydrogen states. Additionally, clarification should be made regarding liquid organic hydrogen carriers such as formic acid, methanol and ammonia.
- Section 3, Opt-in Fuel: As noted in the cover letter, the Port strongly supports the specific inclusion of alternative clean maritime fuels as an opt-in fuel. This is consistent with RCW 70A.535.030(5), which specifically requires mechanisms for persons associated with supply chains of exempt transportation fuels to elect to participate in the clean fuels program by earning credits for production, import, distribution, use, or retail of exempt fuels with associated life-cycle greenhouse gas emissions lower than the per-unit standard. In addition to this specific inclusion, the proposed list of alternative fuels in Section 3(b) does not include the range of drop-in or next generation maritime fuels and the list should be expanded to include other alternative fuels for exempt maritime fuel uses which can be demonstrated to provide

lower lifecycle carbon emissions than the carbon intensity standard, or as approved through a Tier-2 pathway.

WAC 173-424-220 (pages 22-26)

- Section 8, Electric power for ocean-going vessels (eOGV): the Port supports the approach here which is reflective of the significant (tens of millions of dollars of investment per connection) required to design and construct shore power systems. Providing the fuel supply equipment owner as the first credit generator directly supports investment in clean fuels infrastructure. Subsections 8a, 8b, and 8b(i) each use a different description of the fuel supply equipment and should be harmonized to avoid confusion ("power supplying equipment" "electric supplying equipment" and "electric charging equipment" are used). Fuel Supply Equipment is a defined term which would be appropriate for application here.

WAC 173-424-300 (pages 26-30)

- Section 1(g)(iii) (page 28-29), further defines the FSE for eCHE, forklifts, etc, but not eGSE. While eGSE FSE are presumably covered in bulk under (I), it is then further defined in WAC 173-424-220 in Section 9 on Page 24. It would be helpful if the references were all in one place.

WAC 173-424-420 (pages 34-39)

- Section 3(c)(ii)(F) (page 36) – Methodologies for generating EV credits. There is some mention that fixed guideway buses, forklifts, etc in use before Jan 1, 2023 must be reported separately, but it's not clear if that means they have the same credit value. Relatively inexpensive equipment like forklifts and light duty vehicles that were decarbonized before the rule implementation and can be easily distinguished in reporting should be excluded from credit generation, as the incremental cost over their fossil counterpart was likely recovered quickly.

WAC 173-424-560 (pages 51-61)

- Section 2 (page 56) - DC fast charging infrastructure (FCI) pathways. We appreciate that DCFC permitted prior to Jan 1, 2023 are not eligible for capacity credits. The Port would also support preventing utilities from generating credits for residential charging of electric vehicles for vehicles registered prior to Jan 1, 2023 in WAC 173-424-540 section 3 for the same reasons.
- Section 2(d)(ii) (page 60) – Facilities like the Port are developing DCFC infrastructure to support ground transportation modes like taxis, TNCs, and rental cars. Many of these DCFC meet the aim of the Clean Fuel regulation, but may use PIN codes or prioritization access during peak times of airport activity. They are likely to get higher use than other public chargers due to their location and operating agreements with the Port, and it would be helpful if Ecology provided the ability to approve exceptions of this nature in its FSE application process.

WAC 173-424-600 (pages 64-67)

- Section 5(b) (page 66), Tier 2 fuel pathways. The Port recommends that the timing for Tier 2 pathway applications, and sustainable aviation fuel in particular, not be delayed until 2025. Alternative fuels for the aviation and maritime industries will be critical to meeting state and local decarbonization goals and delaying opportunities for lower carbon intensity fuels will miss opportunities for early action and may delay development of the supplies for these hard-to-decarbonize industries.

WAC 173-424-610 (pages 68-75)

- Section (7)(ii) (page 70) - Applicants employing co-processing at a petroleum refinery– The Port does **not** support allowing the producer to define the methodology for biomass allocation in co-processed fuels, particularly where those fuels are jet fuels. We would prefer the methodology be defined similarly to the Federal Renewable Fuel Standard (RFS) and ASTM D6866, which is restricted to carbon-isotope analysis (C-14, and C-13 possibly for woody biomass).

  Research has demonstrated that the carbon chains within biomass, when co-processed in a hydroprocessing/cracking-based conventional refining facility, tend to bias towards the diesel fraction of the fuel when reformed into hydrocarbon molecules. This can be mitigated somewhat by changing feedstock types, processes and catalysts, but is challenging to adjust. The co-benefits of biomass feedstocks such as fewer contaminants also follows with this diesel fraction. This would mean that a refinery using a mass-balance methodology for co-processing could claim to sell sustainable alternative jet fuel that contains almost no renewable content. The consequence is that this fuel would have no associated local air quality benefits for impacted communities, and no reduced contrail formation and associated climate-forcing benefits that "true" (derived directly from renewable feedstocks) sustainable aviation fuel contains.

  References:
  - https://www.sciencedirect.com/science/article/pii/S0306261920304499
  - https://www.osti.gov/servlets/purl/1600902
  - https://www.energy.gov/eere/bioenergy/articles/co-processing-part-2-co-processing-waste-derived-biocrudes-petroleum
  - https://ec.europa.eu/energy/sites/ener/files/documents/co-processing_final_report_090418.pdf

- Section 9(g)(iii)(C)(II) (page 72) Currently book and claim biomethane is an eligible feedstock to produce transportation fuels such as CNG, LNG, L-CNG as well as a feedstock for hydrogen. We believe that adding book and claim biomethane as a feedstock for RD and alternative jet fuel similar to the treatment of biomethane as a feedstock for hydrogen production is a feasible approach. The Port requests the addition of renewable diesel and alternative jet fuel as eligible to use biomethane as a feedstock.

WAC 173-424-900, Table 4 (page 88):

- There is no EER for eGSE. Suggest following Oregon recommendation, which is **2.60 relative to diesel and 3.56 relative to gasoline**. This is in line with cargo handling equipment and forklifts. Reference: https://www.oregon.gov/deq/rulemaking/Documents/cfp2022EWpdxStudy.pdf
- There is no EER listed for eOGV. Recommend inclusion in line with both the Oregon and California programs, which include EER for ocean going vessels of with an EER value of 2.6 relative to diesel.

Chapter 173-455 WAC, Air Quality Fee Rule

- Pg 1, Section 6 (a)(i & ii) – In other states like California and Oregon, a fee is not imposed on credit generators. By imposing the 20% program cost fee onto generators, the value of the program credits is diminished compared to neighboring states, which further disincentivizes renewable fuel producers from selling into our markets at competitive prices.