Air Products (Miles Heller)

Please find our comments on this rulemaking attached

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August 1st, 2025

Adam Saul
Department of Ecology, Air Quality Program PO Box 47600,
Olympia WA 98504-7600

Comments submitted electronically

RE: Comments on Proposed Clean Fuels Program Rule

Dear Mr. Saul,

Air Products is pleased to provide comments in support of Washington State's Clean Fuels Program Rule (CFP). As we have seen in California's Low Carbon Fuel Standard (LCFS) and Oregon's CFP, these regulations are very successful, technology-neutral performance-based approaches that help to transition transportation fuels to cleaner, low-carbon alternatives. We believe that low-carbon hydrogen will play a key role in the energy transition and will contribute meaningfully to a program like the CFP. We strongly support Washington State's implementation of a robust CFP regulation.

Air Products is the only U.S.-based global industrial gas company and the world's largest hydrogen producer and supplier for use in numerous markets, including transportation. We are committed to rapidly scaling and decarbonizing global hydrogen supplies to support decarbonization efforts internationally including substantial investments in low-carbon hydrogen projects in North America:

- An innovative net-zero carbon hydrogen production complex in Alberta, Canada, which achieves net-zero emissions through the combination of advanced hydrogen reforming technology, carbon capture and storage, renewable feedstock and hydrogen-fueled electricity generation.
- A low carbon hydrogen clean energy complex in Louisiana, which represents the company's largest investment ever in the United States and will sequester more than 5 million tons of carbon dioxide (CO_2) per year. This project will capture 95% of the facility's CO_2 emissions and produce blue hydrogen with near-zero carbon emissions.

As mentioned above, Air Products strongly support the Department of Ecology's (Ecology) advancement of the CFP. We offer a couple of comments to improve Ecology's

proposal by furthering low-carbon hydrogen deployment in a technologically neutral manner that is consistent with the design of the low carbon fuel standard. These changes will also provide consistency with the latest provisions in the final California low-carbon fuel standards. Consistent standards will support production and pathway methodologies while simplifying cross border production, transportation, and utilization of low carbon hydrogen.

Renewable Hydrogen Definition

The current definition of renewable hydrogen (WAC 173-424-110 (138)) appears to limit the biogenic feedstock that can be used in a cracking or reforming process to biomethane in provision (b) which is narrowly defined in the regulation. As contemplated in our Alberta project, hydrogen plants that serve renewable diesel or other renewable liquid fuel production facilities may access a biogenic offgas produced at the liquid biofuel facility as fuel or a feedstock for hydrogen production to further reduce carbon intensity. The biogenic offgas streams from these biofuel facilities will be a mixture of multiple renewable compounds – many of which are heavier than methane and would not meet the current definition of biomethane (renewable propane is an example). The intent of the definition and the use of the renewable hydrogen term in the regulation should not be so limited.

The California Air Resources Board (CARB) recognized this oversight in their last rulemaking and modified their definition in §95481 accordingly as follows and noted in yellow below. We also propose that the term steam methane be struck because there are multiple reforming technologies deployed for hydrogen production including auto-thermal reforming technology which is preferable when maximizing carbon capture.

"Renewable Hydrogen" means hydrogen derived from (1) electrolysis of water or aqueous solutions using renewable electricity; (2) catalytic cracking, oxidation, or ~~steam methane~~ reforming of biomethane or other renewable hydrocarbons; or (3) thermochemical conversion of biomass, including the organic portion of municipal solid waste (MSW)…"

We request that Ecology staff make the same change to the renewable hydrogen definition in your proposed amended regulation to support broader renewable feedstocks for low carbon hydrogen production.

Renewable Hydrogen Requirements for Vehicle Fuel

WAC 173-424-120 (d) proposes a new requirement that hydrogen dispensed in as a fuel to vehicles must be 80% renewable by 2030 and 100% renewable by 2035. This particular provision seems to be patterned after language that was originally proposed by CARB but is not consistent with what CARB adopted in their final recommendation.

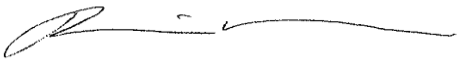
We urge Ecology to remove this requirement altogether for hydrogen as it un-levels the playing field between electricity and other applicable transportation fuels that are not required to meet an equally stringent renewable standard in the same timeframe. This proposed change will severely limit the development of a robust hydrogen transportation fuels supply in Washington State at a time when a transition to ZEV transportation solutions, including new vehicle and new fueling stations, is being advanced. This layered renewable requirement deviates significantly from the technology-neutral, carbon-intensity focused approach that the CFP has always taken and undermines the beneficial role that carbon capture and sequestration (CCS), and other methods of decarbonization, will play in the national energy transition and for which protocol development is being contemplated by Ecology in an upcoming rulemaking, and forgoes additional carbon emission reductions and air quality improvements that low carbon hydrogen can provide. Moreover, when coupled with the currently restrictive renewable hydrogen definition discussed in the comment above, this new provision forecloses on multiple opportunities to spur low-carbon hydrogen use, including renewable opportunities.

While our preference would be for Ecology to strike the requirement, at a minimum we request that it be modified to match CARB's final provision (§95482(h)) which recognizes the role that CCS will play in reducing hydrogen carbon intensity as follows:

(h) Effective January 1, 2030, hydrogen dispensed as a vehicle fuel must comprise at least 80 percent of the following: Renewable hydrogen, hydrogen produced with accompanying carbon capture and sequestration technology, or a combination of renewable hydrogen and hydrogen produced with accompanying carbon capture and sequestration technology. Any volumes of hydrogen that do not meet the requirements of this subsection must be assigned the ULSD carbon intensity found in Table 7-1, and an EER of 1. Effective January 1, 2035, hydrogen produced using fossil gas as a feedstock is ineligible for LCFS credit generation unless biomethane attributes are matched to 100 percent of the hydrogen production as described in section 95488.8(i)(2) or 100 percent of the hydrogen is produced with accompanying carbon capture and sequestration technology.

Air Products appreciates the opportunity to provide this feedback and we would be happy to meet with Ecology to discuss our proposals further. Please feel free to contact me by phone (916-860-9378) or email hellermt@airproducts.com.

Respectfully,



Miles Heller
Director, Greenhouse Gas Government Policy