Air Products and Chemicals, Inc.
4000 MacArthur Boulevard, Suite 420, East Tower
Newport Beach, CA 92660

www.airproducts.com

June 6, 2023

Cheryl Laskowski
Chief, Transportation Fuels Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Comments submitted electronically

RE: Comments Related to the May 23rd, 2023 Low Carbon Fuel Standard Workshop

Dear Dr. Laskowski,

Air Products is pleased to provide comments in support of the California Air Resources Board (CARB) rulemaking for the Low Carbon Fuel Standard (LCFS). We support California's climate goals and believe that Air Products can help California with the energy transition needed to meet these challenges. We are glad that CARB is proposing to enhance the LCFS in many ways including increasing target stringency and providing for automated target ratcheting provisions within the 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. Within California, the company safely operates nine hydrogen production facilities, about 30 miles of hydrogen pipeline and currently supplies and operates a network of light-duty and heavy-duty hydrogen fueling stations, facilitating the transition to zero-emission transportation.

We support including both an initial 2024/2025 accelerated stepdown and automatic stringency 'ratcheting' mechanism in the amended regulation as was discussed in the workshop. We suggest that the stepdown be substantial and implemented as early in 2024 as possible, to bring the credit prices to a level sufficient to incentivize investment. The LCFS program is most effective when the credit pricing is consistently at a level that incentivizes the necessary decarbonization of the transportation sector and enabling the program to make this adjustment automatically would be very powerful for accelerating deployment of low carbon fuels. We believe that such a mechanism will be needed even more in the future as many policies and funding streams outside of the LCFS will contribute to decarbonization of transportation and further depress LCFS credit values translating into reduced investments, less innovation in clean low-carbon intensity fuels, and lost opportunities for millions of tons of reductions of greenhouse gases. For example, there are substantial programs that support battery electric vehicles outside of the LCFS and provide significant incentive to the purchase and use of light duty battery electric vehicles[1]. In terms of ratchet mechanism design, we believe the following design considerations or elements should be incorporated.

[1] Volkswagen Environmental Mitigation Trust Fund, California Energy Commission EnergIIZE Infrastructure Funding Program and Clean Transportation Programs, and the National Electric Vehicle Infrastructure Program

- We are supportive of triggers based on deficits, credits, and/or the banking of credits (size of bank or growth). Credit price may be used in conjunction with these metrics but should not be a stand-alone metric as it may be subject to volatility not indicative of the basic supply and demand of credits. A combination of triggers may be best to ensure that a market trend exists that necessitates increased stringency.

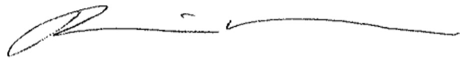
- The trigger mechanism should be based on an average of four quarters to smooth natural seasonal market variation. Assessing and adjusting stringency each quarter is too frequent and will result in more volatility and uncertainty. Averaging more than 1-year will not be responsive enough to the market.

- The four quarters to be assessed should be fixed and not rolling. Having a fixed, known set of quarters will enable market participants to see the data from each quarter and predict the likelihood of the ratchet being triggered even before an official declaration. We request that this fixed period of time be based on the calendar year which would enable the analysis and declaration that trigger conditions have been met by May each year which provides seven to eight months' notice to market participants that the stringency will increase the following year.

- In terms of response once the trigger conditions are met, we recommend that the compliance schedules for fuels (gasoline, diesel, and jet) all advance in stringency by one year for the duration of the approved compliance schedule ("all future benchmarks" as mentioned in the CARB workshop presentation). This means that each future year will see an increase in stringency once the trigger conditions are met. We believe this provides long-term predictability for future year compliance requirements for all market participants in comparison to only advancing stringency for one year at a time. This latter approach would create uncertainty for future year requirements by increasing the likelihood of more frequent triggers spaced in time such that there could be longer credit demand lulls between triggers. Concerns have been expressed that advancing the entire compliance schedule will result in very large stringency increases in distant years (5 or more years from the year the adjustment is made) especially in cases where the trigger is met more than once in adjacent compliance periods. We believe that the existing cost containment mechanisms provide some protection in these cases, and that rulemaking or, which should occur at a minimum every three years for model updates, is frequent enough to relax the stringency in future years if needed. Board direction and intervention could also occur outside of routine rulemaking in the event that the ratchet mechanism tightens the market too quickly.

Air Products appreciates the opportunity to provide this feedback. Please feel free to contact me by phone (916-860-9378) or email hellermt@airproducts.com.

Respectfully,



Miles Heller
Director, Greenhouse Gas Government Policy