December 15, 2010

Mary Nichols
Chair
California Air Resources Board
1001 I Street
Post Office Box 2815
Sacramento, California 95812

Re: Proposed Regulation to Implement the California Cap-and-Trade Program, Comments on Behalf of Air Liquide Large Industries U.S. LP

Dear Ms. Nichols:

Air Liquide Large Industries U.S. LP writes to address the unintended adverse consequences of CARB's failure to allocate emissions allowances to hydrogen production facilities associated with refineries in the proposed regulations to implement the California Cap-and-Trade Program for greenhouse gas emissions ("the Cap-and-Trade Rule"). Air Liquide believes that free allowances that are allocated for particular emissions within the refining sector, such as emissions from hydrogen plants, should be allocated to the party generating the emissions.

Air Liquide is the world's leader in industrial and medical gases. Air Liquide and its affiliated companies operate twenty facilities and employ more than 500 people in California. Air Liquide owns and operates two plants in California that supply hydrogen to refineries, which is used in the production of clean-burning fuels. In addition, other

industrial gas companies operate similar hydrogen plants at other refineries in the state. Plants of this type typically operate under fixed-price contracts with terms of 15 to 20 years.

I. Effect of the Proposed Regulation on Independent Hydrogen Plants

Both Air Liquide and its refiner customers produce hydrogen for use in the production of CARB grade fuels including gasoline and other petroleum products. Air Liquide's hydrogen plants are separately owned, operated and permitted from the refineries, and both Air Liquide and the refiners are responsible for obtaining allowances for their emissions under the proposed Cap-and-Trade Rule. However, to prevent "leakage" of greenhouse gas emissions to out-of-state sources, CARB has proposed allocating allowances to refineries equal to 100 percent of expected emissions per unit of output for a "standard" refinery having the same size and configuration (using an "emissions efficiency benchmark"). Appendix J, CARB Staff Report on Allowance Allocation, p. J-42. The proposed regulations do not clearly state the number of allowances to which refineries will be entitled, or the basis for that calculation, but the refineries' allocation of allowances would presumably account for all greenhouse gas emissions associated with fuel production at the facilities, including emissions from hydrogen production associated with the production of CARB grade fuels, whether that hydrogen is produced "in-house" by the refiner or by an independent hydrogen plant.

Even though the independent hydrogen plants are essentially replacements for the refineries' own hydrogen production capacity, the proposed Cap-and-Trade Rule does not allocate any allowances to these hydrogen production facilities. Air Liquide and its

competitors would thus be required to purchase allowances for emissions from their refinery-based hydrogen plants, and depending on the terms of their long-term contracts with their refinery customers, may or may not be able to recoup the cost of purchasing those allowances.

CARB's proposed disparate treatment of refinery hydrogen plants and independent hydrogen plants creates potential unfairness and inefficiencies which would not exist if allowances were allocated to each party generating emissions associated with petroleum refining. Moreover, the proposed regulatory structure for refinery-based hydrogen plants under long-term contracts is not consistent with the purposes of the proposed Cap-and-Trade Rule, CARB's policies or with principles of fairness. CARB should at a minimum address the three areas of potential unfairness and inefficiency set forth below.

II. The Proposed Regulation Should Be Revised To Avoid Interfering With Long-Term Contracts

First, the proposed rule may disrupt long-term contracts between hydrogen plant operators and their customers. As noted above, Air Liquide's and its competitors' hydrogen plants operate under long-term, fixed-price contracts, some of which were signed before the passage of AB 32. CARB has recognized the importance of protecting parties to similar long-term contracts in the electric power generation industry, noting in Appendix J to the proposed Cap-and-Trade Rule that the parties to such agreements "may require special treatment." App. J, p. J-16, note 15. Several comments submitted to CARB by other parties reflect the same concerns. Both the Waxman-Markey and Kerry-Boxer federal bills address the problems associated with long-term contracts in the power

generation context by allocating allowances to those parties who would be required to purchase allowances but would be unable to recoup their cost under long-term supply contracts. Because CARB's rules may become precedent for other similar rules throughout the nation, it is especially important that CARB's rules avoid unnecessary disruption of long-term contracts. Given the widespread recognition of the importance of protecting long-term contracts under the proposed Cap-and-Trade Rule, CARB should protect parties to such long-term contracts who may be unable to pass the costs of purchasing allowances through to their customers by allocating allowances to them.

III. CARB Should Encourage the Efficient Operation of Independent Hydrogen Plants

Second, CARB's allocation of allowances to refiners but not to independent hydrogen plants associated with refineries could, depending on the final method of allocation, disrupt the efficient operations that have developed and continue to develop between refiners and independent hydrogen plants at California refineries. In determining the details of the proposed rule's allocation scheme, CARB should avoid creating disincentives to efficient relationships between refiners and independent hydrogen plants.

Each refinery that produces CARB grade fuels in California operates its own hydrogen plant, sometimes in addition to a plant owned by Air Liquide or one of its competitors. By out-sourcing the hydrogen production function to a company such as Air Liquide, refiners are in many cases able to improve their hydrogen production efficiency, lower their energy usage and reduce their greenhouse gas footprint. Industrial gas manufacturers such as Air Liquide regularly develop enhanced technologies and typically

operate newer, more energy efficient facilities at refineries. They also have the capability to achieve economies of scale by aggregating demand from multiple hydrogen customers (e.g., from two refineries or from a refinery and other industrial customers). By adding an alternative hydrogen stream to a refinery's hydrogen supplies, Air Liquide also increases the reliability and dependability of California's fuel supply system. It is thus highly desirable, and produces significant environmental and economic benefits, for refineries to contract with independent hydrogen plant operators such as Air Liquide.

The proposed regulations may – depending on how allowances are allocated to refiners and other parties in the refining sector – disrupt these efficient relationships by favoring the "in-sourcing" of hydrogen production by refiners. If, for example, the refiner receives free allowances for the operation of its hydrogen plant but is required to reimburse a hydrogen plant operator for allowances (under a long-term contract that obligates the refiner to pay such costs) when it purchases hydrogen from an independent hydrogen plant, then the refiner may have an incentive to use its own hydrogen production facilities. Such in-sourcing could result in less use of the most efficient, state-of-the-art facilities and lead to increased, rather than reduced, greenhouse gas emissions. Again, these are potential unintended consequences of the proposed rule that should be avoided in determining the final allocations to the petroleum refining sector. CARB should ensure that allowances are freely distributed to hydrogen plant operators in order to avoid any disincentive for refiners to use the most efficient hydrogen production facilities.

IV. By Allocating Allowances to Independent Hydrogen Production Facilities, CARB Will Promote the Goals of AB 32

Finally, and perhaps most significantly, the proposed rule's allocation of allowances associated with petroleum refining solely to refiners has the potential to undermine public confidence in California's cap-and-trade program. The perception that the program unfairly imposes costs on parties to long-term contracts and causes economic harm to the most efficient producers of hydrogen would undermine the Cap-and-Trade program. These negative consequences will be avoided by allocating allowances to refineries and to independent hydrogen plant operators on the same basis.

V. Proposed Modifications to the Rule

Air Liquide requests that CARB revise the Cap-and-Trade Rule's allocation scheme to accommodate existing long-term contracts, eliminate any incentives for inefficiency, and to promote the use of efficient hydrogen plants associated with refineries. As noted above, Air Liquide believes that the most efficient method of distributing allowances within the refining sector would be to allocate allowances for particular emissions to the party generating the emissions. However, at a minimum, CARB should consider the following two remedies to the potential unfairness and inefficiencies created by the proposed rule:

- Allocate allowances to independent hydrogen production facilities associated with refineries in order to promote the use of the most efficient, state-of-the-art hydrogen production facilities and to avoid any interference with long-term contracts.

- Allocate allowances to hydrogen production facilities associated with refineries and that are subject to long-term contractual agreements that may not allow the recoupment of the costs of compliance instruments until the current contracts expire or are modified.

Air Liquide respectfully requests that the Board direct staff to develop proposed revisions to the Cap-and-Trade Rule as proposed above.

Thank you for your consideration of these comments.

Very truly yours,

Dwayne Phillips
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