



**Dwayne H. Phillips**  
Director  
Hydrogen/Syngas On-Sites

April 4, 2014

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

**Re: Proposed Amendments to Cap-and-Trade Regulation**

Dear Ms. Nichols:

I am writing on behalf of Air Liquide Large Industries U.S. LP (“Air Liquide”) regarding the amendments to the Cap and Trade Regulation proposed by CARB on March 21, 2014. Air Liquide supports CARB’s proposed regulatory amendments that provide for allowances to cover emissions under long-term fixed price “legacy contracts.” Air Liquide also supports the methodology that CARB used to develop its revised benchmark for gaseous hydrogen production, but strongly objects to CARB’s last-minute change to CARB’s reporting guidance to exclude molecular hydrogen contained in the feedstock from the amount of “on-purpose hydrogen” produced by a hydrogen production facility. We submit these comments to request that CARB:

- correct a drafting error in the legacy contract provisions in order to make clear that legacy contract generators with industrial counterparties are awarded allowances for the term of the contract; and
- revise CARB’s reporting guidance and confirm that allowances allocated for hydrogen gas production will be based on total production of hydrogen gas, including gas produced by processing molecular hydrogen present in the feedstock.

**1. Background**

Air Liquide and its affiliated companies operate twenty facilities and employ more than 500 people in California. Air Liquide operates two hydrogen production facilities in California that supply hydrogen and steam to refineries. These hydrogen production facilities are co-located with the refineries they serve and are among the six non-refinery-owned, “merchant” hydrogen production facilities that are subject to the Cap and Trade Regulation. In addition to these six merchant hydrogen production facilities, there are approximately twenty refinery-owned hydrogen production facilities in California. Air Liquide’s hydrogen plants supply hydrogen to the refineries they serve under long-term, fixed-price contracts.

## **2. Allocation of Allowances to Legacy Contract Generators**

As we stated in our February 14, 2014 comment letter, Air Liquide strongly supports CARB's decision to allocate allowances to covered entities that supply electricity and thermal energy (including steam generated in connection with the production of hydrogen) to third parties under long-term, fixed-price "legacy contracts" executed before September 1, 2006. These legacy contract provisions correctly recognize that some covered entities that supply electricity or steam under long-term contracts will not be able to pass through the cost of purchasing emissions allowances to their customers.

As set forth in Section 95870(g)(2), the proposed regulation allocates allowances to legacy contract generators with an industrial counterparty covered by the Cap-and-Trade Regulation for the term of the contract. We understand that the reference to the allocation of allowances to legacy contract generators with an industrial counterparty "through the second compliance period" in Section 95890(e) was inadvertent, and that CARB intends to revise Section 95890(e) to make clear that such generators will receive allowances for the term of the contract. We urge CARB to correct this error promptly, and we thank CARB staff for their prompt attention to this issue.

## **3. Benchmark for Gaseous Hydrogen Production**

Air Liquide supports CARB's decision to propose a single benchmark for hydrogen production facilities, using data from both merchant and refinery-owned hydrogen production facilities in California. However, we note that CARB issued guidance on March 28 under the Mandatory Reporting Regulation requiring that, in determining the amount of "on-purpose hydrogen" on which allowance allocations are based, reporting entities should subtract the amount of molecular hydrogen contained in the feedstock. CARB has also revised its reporting tool to exclude molecular hydrogen from the amount of "on-purpose hydrogen" reported. This is the first time that CARB has suggested that molecular hydrogen should be excluded from the amount of on-purpose hydrogen reported. We strongly oppose this guidance, as it is inconsistent with the method by which CARB has developed the benchmark.

First, we note that the requirement to subtract molecular hydrogen from the mass of "on-purpose hydrogen" produced is found nowhere in AB 32, the Cap-and-Trade Regulation, or the MRR. There is no legislative or administrative requirement to ignore emissions associated with processing molecular hydrogen.

Second, CARB developed its proposed benchmark of 8.94 allowances/MT H<sub>2</sub> using production data that included molecular hydrogen contained in the feedstock. CARB could not have subtracted molecular hydrogen in developing its benchmark because the amount of molecular hydrogen in feedstocks was not reported to CARB, and indeed there was no field in the reporting tool to report this information, until this year. The methodology that CARB used to calculate its benchmark was the correct one, and it is the reporting guidance and not the benchmark that should be changed. CARB's benchmark development process correctly recognized that there are greenhouse gas emissions associated with the processing of molecular

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hydrogen in the feedstock, and that an accurate benchmark should reflect these emissions. CARB should allocate allowances using the same methodology that it used to develop the benchmark. Accordingly, allowance allocations should be based on the total mass of hydrogen produced, including molecular hydrogen contained in the feedstock.

Finally, if CARB were to incorporate a requirement to subtract molecular hydrogen from the amount of “on-purpose hydrogen” produced, that requirement would not advance CARB’s goal of reducing greenhouse gas emissions. Such a requirement would create disincentives for the use of refinery fuel gas as a feedstock and result in flaring or waste of refinery fuel gas while at the same time increasing the consumption of natural gas, with associated increases in greenhouse gas emissions from the extraction, processing and distribution of that gas. Air Liquide has consistently urged CARB to avoid creating distortions in the hydrogen production market that are unrelated to CARB’s goal of reducing greenhouse gas emissions. CARB’s last-minute change to the reporting guidance will create market distortions.

CARB should therefore withdraw its guidance under the MRR excluding from “on-purpose hydrogen” the mass of molecular hydrogen contained in the feedstock, and confirm that allowances will be allocated based on total hydrogen production, without subtracting molecular hydrogen contained in the feedstock.

Thank you for your consideration of these comments. We appreciate CARB staff’s efforts in developing the Cap-and-Trade Regulation and look forward to continuing to work with CARB to resolve the issues identified in this letter.

Very truly yours,

/s/Dwayne Phillips

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