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**Air Products and Chemicals, Inc.**  
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August 11, 2011

Ms. Mary Nichols – Chair, California Air Resources Board  
1001 I Street  
PO Box 2815  
Sacramento, CA 95812

RE: Comments Regarding Proposed 15-Day Modifications to the Mandatory Reporting of Greenhouse Gas Emissions Regulation.

Dear Ms. Nichols:

Air Products is a global, Fortune 250 company that supplies atmospheric, process, medical and specialty gases, specialty chemicals and process equipment serving a diverse range of industries, including primary metals, refining, electronics, food and glass sectors, as well as healthcare and many other general manufacturing industries. Air Products has over 400 employees and 30 locations in California, including numerous atmospheric gases (oxygen/nitrogen/argon) and hydrogen production facilities, electronic specialty gases and materials production and electricity generating facilities. In addition, Air Products serves a fleet of hydrogen fueling stations across the state, facilitating the transition to carbon-free transportation.

Air Products welcomes the opportunity to submit comments regarding the proposed 15-Day Modifications to the Mandatory Reporting Regulation (MRR) issued July 25, 2011. The following comments express our concerns and potential solutions to areas of the greenhouse gas (GHG) reporting program that have significant impact on benchmark calculations and other aspects of the cap and trade program that directly relate to our operations.

**EXECUTIVE SUMMARY:**

- 1. Proposed Changes to the MRR Create Uncertainty in Reporting Responsibility and GHG Emission Compliance Obligation for Co-located Hydrogen Plants*** – Proposed changes in the state MRR create uncertainty as to which entity is responsible for submitting annual emissions reports and hence bears the compliance obligation under the cap and trade program.
- 2. Process Emissions from Refinery Hydrogen Production Must be Reported Separately from Overall Stationary Combustion Emissions*** – The proposed MRR language does not make clear that process GHG emissions from in-house hydrogen plants are to be reported separately from those resulting from overall stationary combustion.

- 3. *Proposed Changes to the MRR Do Not Require Reporting of Hydrogen for Use as a Transportation Fuel*** – To avoid penalizing hydrogen as an alternative fuel for the petroleum-dominated transportation sector through subjecting all hydrogen production to cap and trade, CARB needs to carefully track hydrogen produced for use as a transportation fuel versus hydrogen produced for industrial applications by including a specific reporting obligation in the MRR and then considering exempting this hydrogen from the cap and trade program.

#### **DETAILED COMMENTS:**

- 1. *Proposed Changes in the Mandatory Reporting Program Create Uncertainty in Reporting Responsibility and GHG Emission Compliance Obligation for Co-Located Hydrogen Plants*** – CARB has endeavored to mimic the mandatory reporting applicability and calculation methodology of the U.S. EPA Mandatory Reporting Rule in many ways. However, in one aspect of the reporting rule relevant to our operations in the state there appears to be a critical difference – when operational control is shared between entities, CARB’s assignment of reporting (and hence compliance allowance retirement) obligation shifts to the entity holding the permit to operate from the relevant air pollution control authority. The EPA MRR does not have such a provision, making the obligation to report rest solely on the owner/operator of a facility. With the modifications proposed to the state MRR, particularly under §95114(a) which now is identical to the EPA MRR language [Subpart P of 40 CFR Part 98 §98.160(c)], some uncertainty as to the states’ intent has been created.

We seek confirmation that, notwithstanding the different interpretation by U.S. EPA, the responsibility for developing, submitting and certifying the GHG emissions data report under Article 2, §95104 of Title 17 and, subsequently, the obligation to satisfy an emission compliance obligation under Article 5, §95811(a), rests with the entity holding the permit to operate under the conditions described within the specific definitions of “Operational Control” under §95102 and “Operator” under §95802; and the regulatory primacy stated under §95000.5(d)(4).

- 2. *Process Emissions from Refinery Hydrogen Production Must be Reported Separately from Overall Stationary Combustion Emissions*** – Proposed changes to the MRR seem to address the need for separation in reporting of GHG emissions from refinery hydrogen plants and overall refinery stationary combustion emissions by requiring that reporting entities follow U.S. EPA MRR as set forth in 40 CFR §98.250-258. Specifically, 40 CFR 0§98.252(i) directs refineries to follow calculation methodologies, monitoring and QA/QC methods, missing data procedures, reporting requirements, and recordkeeping requirements for hydrogen production (40 CFR Part 98 Subpart P).

This reporting change is vital to setting an appropriate benchmark for producers of industrial gases, as also explained in our comments regarding 15-day modifications to the cap and trade regulation. The benchmark for this sector relies directly on the data reported through the MRR, which is currently unrepresentative due to missing refinery hydrogen production data. In addition,

CARB released a “step-by-step guidance” document in March 2011 titled “GHG Emission Reporting Using the California ARB On-line Reporting Tool” for petroleum refineries and hydrogen production facilities<sup>1</sup>. This guidance specifically states that “the regulation provides reporters with the option of reporting Hydrogen Plain Stationary Combustion and Process together or separately”, which may create further confusion. An additional section should be included in CARB’s MRR that clarifies that GHG emissions and output associated with refinery hydrogen production **must** be reported separately under the new rule. The recently released guidance document on on-line reporting should also be revised accordingly.

3. ***Proposed Changes to the MRR Do Not Require Reporting of Hydrogen for Use as a Transportation Fuel*** – Since all hydrogen production, regardless of the ultimate hydrogen use, falls under the cap and trade program, hydrogen transportation infrastructure will be burdened by an early penalty imposed on the hydrogen produced for use as a transportation fuel. As also stated in our comments on the proposed cap and trade modifications, Air Products believes that this hydrogen should be exempt from a compliance obligation during the first compliance period, consistent with the absence of a compliance obligation imposed on fossil fuel-based transportation fuels. Alternately, CARB could make an allowance allocation equal to the emissions associated with the amount of such hydrogen produced and sold as transportation fuel.

Air Products believes that the MRR language needs to require reporting of the amount of hydrogen that is produced for use as a transportation fuel. This will allow CARB to carefully track and collect the necessary data to modify the Cap and Trade Regulation to ensure the proper treatment of hydrogen used as a transportation fuel.

Air Products hopes that the above comments on the proposed MRR modifications illustrate our critical interest and support of efforts. If you have any questions or need additional information to support Air Products position on these matters, please contact me by phone (610-909-7313) or email ([adamskb@airproducts.com](mailto:adamskb@airproducts.com)).

Respectfully,



Keith Adams, P.E.  
Environmental Manager – Climate Change Programs

c: Jeff Lockett, Eric Guter, Stephen Losby, Peter Snyder, Stephen Crowley – Air Products  
Stephen Cliff, Sam Wade, Mihoyo Fuji – California Air Resources Board  
Jim Lyons, Jeff Adkins, Alexandra Marcucci – Sierra Research

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<sup>1</sup> See <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghgtoolrefinehydro.pdf>.