

*Testimony of Paul Wuebben, Clean Fuels Officer
South Coast Air Quality Management District
CARB Board Hearing, April 23, 2009*

**Proposed Regulation to Implement the Low Carbon Fuel
Standard**

Good morning Madam Chair and members of the Board. I am Paul Wuebben, Clean Fuels Officer for the South Coast Air Quality Management District. On behalf of the South Coast AQMD, I appreciate this opportunity to appear before you today.

The AQMD staff supports the adoption of the Low Carbon Fuel Standard (LCFS) without delay. We also endorse several key aspects of the proposed regulation, including the establishment of separate standards applicable to gasoline and diesel and the incorporation of adjustments for direct and indirect land-use changes (LUC) associated with biofuel options. The need for this regulation is paramount in light of the on-going significant public health challenges associated with the use of high carbon fuels such as conventional gasoline and diesel.

The South Coast AQMD staff has submitted written comments. I will focus my brief remarks on several key areas where we believe the regulation can be strengthened. With respect to the intersection of the LCFS with the Federal Renewable Fuel Standard (RFS), we urge that double counting be limited to California's fair share of the federal RFS requirement. Specifically, we recommend that the Board amend Section 95484(d)(2) to require that regulated parties be restricted from applying more than 11.3% of their federal RFS2 compliance volume toward compliance with the LCFS. The 11.3% is a number that your staff has included in the ISOR and we believe that this level is appropriate.

There are three other changes we suggest be considered as part of the 15 day revision process.

- The carbon content of crude oil (i.e. API gravity) should be accounted for in all batches of crude processed by refiners.

Crude quality variation is substantial, and materially affects the carbon intensity of finished fuels.

- Hydrogen production should be fully accounted for in the gasoline and diesel pathways. California refineries consume prodigious quantities of merchant hydrogen essential for CARB RFG and ULSD production.
- And CARB should prohibit altogether the double counting of PHEV credits toward Renewable Portfolio Standard compliance.

Finally, we recommend that as part of the Adoption Resolution, that your Board direct staff to conduct a rigorous on-going public process to update critical data, methodologies and pathway analysis. Specifically, we urge that the Board consider guidance to the staff in the following areas as it looks to future refinements of the LCFS:

- A commitment to at least a triennial review of its Life Cycle methodology;
- A focused Workshop process to update indirect land use change (iLUC) assessments reflected in the GTAP model;
- Annual Energy Economy Ratio (EER) updates to reflect fleet fuel economy changes;
- A commitment to undertake pathway validation and audits;
- Monitoring of light duty dieselization trends;
- Updated assessment of nitrogen to N₂O conversion assumptions;
- Public tracking of actual emissions as well as the carbon intensity per megajoule;
- Periodic technology status and cost review;
- And a rigorous Multimedia Assessment process.

The regulation before you today sets a monumental precedent for California and the nation. We applaud the CARB Board for taking this significant first step to regulating the carbon intensity of transportation fuels and look forward to the continued close working relationship with your staff as they move forward on its implementation.

Thank you for this opportunity.

	South Coast AQMD Staff Comments on the Proposed LCFS Regulation
	<p>CARB Board Hearing April 23, 2009</p> <p>Paul Wuebben, Clean Fuels Officer South Coast Air Quality Management District</p>

	Recommendation Regarding Potential Renewable Fuel Standard (RFS) Compliance Shuffling:
	<ul style="list-style-type: none">■ Amend Section 95484(d)(2)* to require that regulated parties be restricted from applying more than 11.3% of their federal RFS2 compliance volume toward compliance with the LCFS. <p><i>* Record Keeping and Auditing, Evidence of Physical Pathway</i></p>

	<h2>Other Specific Recommendations</h2>
	<ul style="list-style-type: none">■ Account for crude oil API gravity for all batches■ Incorporation of full hydrogen production accounting in gasoline pathways■ Prohibition RPS double counting of PHEV credit

	<h2>Recommendation to Establish an On-Going Public Process to Refine and Validate Key Pathway Data and Methodologies:</h2>
	<ul style="list-style-type: none">■ Commitment to a triennial Life Cycle Analysis methodology review■ Focused Workshop process to update iLUC assessment in GTAP■ Annual EER updates to reflect fleet FE changes■ Direction to undertake validation and audits■ Track impacts on light duty dieselization■ Nitrogen to N₂O conversion assessment■ Public tracking of emissions as well as intensity■ Periodic technology status and cost review■ A rigorous Multimedia Assessment process