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AMERICAN LUNG ASSOCIATION® of California

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Chief, Criteria Pollutants Branch
California Air Resources Board
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John Courtis
Manager, Alternative Fuels Section
California Air Resources Board
1001 I Street
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Comments Re: Low Carbon Fuel Standard Concept Outline

Dear Mr. Simeroth and Mr. Courtis:

The American Lung Association of California offers the following comments and perspectives regarding the development of the Low-Carbon Fuels Standard (LCFS) in California as described in the Proposed Concept Outline for the California Low Carbon Fuel Standard Regulation, March 2008. These comments are based on our expectation that the LCFS should transform the state from a its current reliance on carbon intense transportation fuels to clean alternative fuels that are ultra-low in carbon intensity, environmentally sustainable, and that meet or exceed that state's air quality and environmental justice goals.

In order to ensure that the LCFS meets the state's GHG reduction, air quality and environmental justice goals and to ensure the LCFS promotes sustainability, we urge CARB to consider our perspectives and develop regulations that accomplish the following:

Incorporate Strong Air Quality Protections In The LCFS

California continues to have a severe air pollution problem that is taking a tremendous public health toll. Approximately 8, 800 premature deaths are caused each year by high air pollution levels as well as hundreds of thousands of asthma attacks and thousands of hospitalizations for respiratory and cardiac illnesses. Federal health-based standards for ozone and particle pollution have

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been tightened to reflect scientific evidence of health impacts occurring at lower pollution levels, and California will soon be developing plans to meet these tighter standards. As California moves forward to implement AB 32 and promote low carbon fuels, the state must ensure continued progress to achieve state and federal standards and to address the immediate public health crisis created by air pollution.

The American Lung Association of California believes that greenhouse gas (GHG) reduction strategies, including the LCFS, should not result in increased criteria pollutant or air toxic emissions or cause any delays in the state's progress toward air quality attainment. The LCFS must be carefully designed to avoid these unintended consequences. Allowing such trade-offs would undermine progress on air quality and exacerbate severe public health impacts ranging from asthma and lung illnesses to premature death. Furthermore, because the LCFS is an AB 32 Early Action Measure, CARB is directed by statute to ensure that it is consistent with the state's efforts to reach health-based air quality standards.

The LCFS should include specific provisions to ensure that qualifying fuels maintain or improve on emissions reductions and air quality benefits achieved by the California Phase 2 Reformulated Gasoline Program (as of January 1, 1999) including emissions reductions for all pollutants and precursors identified in the State Implementation Plan for ozone and emissions of potency-weighted air toxics compounds and particulate matter, or for diesel fuel, maintains or improves upon the emissions reductions and air quality benefits achieved by the California diesel fuel regulations.

Furthermore, the LCFS should push development of transportation fuels and technologies that go beyond the basic standard of not interfering with air quality goals and instead provide additional air quality and public health benefits, contribute to the state's strategy to reduce smog and soot levels and help meet state and federal air quality standards.

Broad Standard That Exceeds 10% Minimum Goal

The American Lung Association of California believes the LCFS should not only contribute significantly to achieving the AB 32 goal for GHG reduction by 2020, but should also establish the groundwork for reaching the state's longer term goal of reducing GHGs by 80 percent from 1990 levels by the year 2050. In order to achieve this, the LCFS should aim to exceed the minimum 10% carbon intensity reduction goal established in the Governor's Executive Order. Emission reductions from the transportation sector are a critical part of the state's strategy to reduce GHG emissions. Even with current assumptions that the LCFS will achieve a 10% reduction, the state has determined that the transportation sector will not meet its 2020 goal for reduced GHG emissions without additional measures. Therefore, we urge CARB to structure the LCFS to exceed the original 10% minimum goal by 2020.

In addition, we support a broad scope for the standard to encourage a transition to lower emitting fuels and technologies across the transportation sector. We support the staff recommendation that the scope should apply initially to all gasoline and diesel on-road, off-road and off-road equipment applications, and rail.

Push Early Deployment of Ultra-Low Carbon Fuels

The American Lung Association of California believes that a key goal of the LCFS should be to push development of the cleanest, most advanced and sustainable fuels with the lowest GHG emissions and the highest potential for use over the long term rather than just relying on fuels that are commercially available today. Therefore, the American Lung Association of California urges CARB to design the standard to aggressively push the development and deployment of advanced, clean, new generation, ultra-low carbon fuels. These fuels would include electricity, hydrogen and possibly certain biofuels produced from renewable or very low carbon-emitting technologies that result in dramatic reductions in life cycle GHG emissions compared to conventional fuels. Ultra-low carbon fuels must be in commercial use by 2020 if the state is going to lay the groundwork for reaching the aggressive 2050 goals.

Due to the long time frames needed for development and deployment of these fuels, ultra-low carbon fuels (ULCF) should be required early in the implementation of the standard, before 2015. We support the addition of a volumetric requirement for ultra-low carbon fuels, as suggested in the staff concept paper, to achieve early deployment of these fuels. We look forward to working with CARB staff to develop a definition of ULCF that will achieve aggressive levels of greenhouse gas reduction based on a full fuel cycle analysis and after taking into account both direct and indirect land use considerations. The ultra-low carbon fuel standard volume requirement should begin in the early years, 2010- 2015 timeframe, and should increase over time.

Additionally, the state needs to support and require the development of new fueling infrastructure to facilitate the deployment of ultra-low carbon vehicles.

No Special Incentives For Diesel Fuel

The American Lung Association of California supports CARB's recommendation to treat gasoline and diesel separately with the goal of achieving a minimum 10% carbon intensity reduction relative to the separate baselines established for each fuel. As stated earlier, we believe that CARB's goal should be to achieve reductions beyond the 10% minimum standard. If gasoline and diesel were pooled together instead of being treated separately, the lung association would be extremely concerned that the LCFS regulation would essentially promote diesel as a compliance option rather than other non-petroleum alternatives.

The American Lung Association of California opposes the inclusion of special incentives for use of diesel fuel within the LCFS due to the particulate pollution and public health problems generated by diesel engines, especially with regard to on and off-road heavy duty diesel engines. Since diesel is a toxic air contaminant in addition to contributing to smog problems, and diesel exhaust typically contains more that 40 different chemical compounds (either in gaseous form or attached to particulate matter) that cause cancer, reproductive harm or other toxic impacts, the lung association has been a strong advocate for the tightest controls on emissions from diesel engines and the replacement of diesel technologies with alternative fuels where possible. The lung association also remains concerned about the ability of diesel light duty technologies to meet tailpipe standards over the long term. Even though light duty-diesel may meet

California's tailpipe standards, we are concerned that the durability of emission control equipment is not fully known or tested.

Therefore we support the staff proposal to not include a diesel fuel adjustment factor and would oppose any other incentives to promote diesel fuel as a compliance option. Special incentives for diesel fuel within the LCFS are not only unnecessary and counterproductive from a public health perspective, but would have the consequence of promoting a fuel with increased greenhouse gas emissions per gallon as compared to gasoline.

Include Strong Sustainability Criteria

The LCFS must include strong sustainability criteria to ensure the greatest environmental protections against the upstream effects from production, transport and delivery of low carbon fuels. The inclusion of strong sustainability criteria is an important way that California can show leadership to the rest of the country and the world in the development of low carbon fuels. While the federal RFS provides helpful baseline sustainability criteria, we believe that California must develop its own criteria that are more protective than the federal criteria., The American Lung Association of California believes that CARB, together with CEC, should evaluate all fuels entering the market under the LCFS to determine the air, water, land and other natural resource impacts as well as the potential for stress on food sources. To measure and compare these air quality and environmental impacts in California and throughout the world, CARB must develop its own evaluation methodologies that account for the impacts from all fuels, including crop-based and cellulosic biofuels, on a full fuel cycle basis using the most scientific and near real-time information available.

We strongly urge CARB to follow the approach outlined in SB 1240 (Kehoe) as amended on April 10, 2008 to conduct ongoing review, evaluation and mitigation of sustainability impacts. SB 1240 ensures that the LCFS is consistent with air quality and emission reduction programs, promotes increased understanding and review of sustainability impacts of fuel production and use, and establishes a process to mitigate any unintended consequences to the environment. Among other provisions, SB 1240 requires CARB to : 1) ensure that the LCFS meets critical air quality protection criteria, 2) ensure that the LCFS meets the state's environmental justice goals, 3) account for greenhouse gas emissions on a full fuel cycle basis to the extent that reliable information exists, and 4) avoid or mitigate to the maximum extent feasible significant environmental impacts associated with the implementation of the standard initially, and 5) update the standard as further information is gathered on the environmental impacts of the LCFS to mitigate against these impacts. Under SB 1240, the CEC is charged with developing a report on the environmental impacts of the LCFS by 2013 and periodically thereafter to assist in the process of evaluating and mitigating these impacts.

Require New Fuels Beyond Federal Renewable Fuels Standard (RFS) requirements.

An important principle for development of the LCFS is that the standard must require development and deployment of new fuels for use in California beyond those that would be required otherwise under the RFS. The LCFS cannot simply be a mechanism to attract RFS complying fuels (that would have been developed and marketed without the LCFS) to California.

The American Lung Association recommends that CARB limit the volume of biofuels from the RFS that can be used to comply with the LCFS.

Account For Land-Use Conversion and Greenhouse Gas Impacts

One of the biggest issues that must be dealt with in the LCFS is the accounting of greenhouse gas emissions from direct and indirect land use changes, especially those linked to the production of crop-based fuels, and the incorporation of GHG emission estimates to reflect those changes within the lifecycle analysis conducted for the LCFS. The American Lung Association of California is concerned about direct and indirect land use impacts because these impacts have the ability to completely overwhelm reductions of greenhouse gas emissions achieved through other parts of the fuel cycle. The LCFS cannot provide a true path toward sustainable fuels without accounting for land use impacts.

The American Lung Association of California urges CARB to fully account for direct and indirect emissions caused by land-use conversions within the LCFS beginning with initial implementation of the standard. The LCFS cannot simply grandfather certain fuels into the standard because they are already in commercial use and delay this important evaluation for later. The LCFS must utilize the best available science to account for the GHG impacts of land-use conversion for all crop based fuels when land is converted to grow biofuel feedstocks or the land use is converted from growth of food to fuels.

Credit Trading and Markets

The American Lung Association of California has serious concerns regarding the development of credit trading mechanisms within the LCFS due to the potential impacts of credit trading on the goals and objectives of the LCFS. We recommend that CARB not allow trading between the LCFS and any broader AB 32 market that is established. We are concerned that credit trading between the LCFS and other markets could dampen the push for innovation and development of clean, advanced transportation fuels and technologies in California, and set back the goals of the LCFS to achieve a rapid transition to sustainable, low carbon transportation fuels.

Evaluate Community Impacts

The American Lung Association of California believes that any trading provisions in the LCFS must be carefully reviewed from an environmental justice perspective. Many neighborhoods and communities in California experience higher exposure to smog and toxic air pollutants and greater health impacts than others due to the location of high concentrations of polluting industries, freeways, diesel trucks and other mobile, commercial and industrial pollution sources nearby.

CARB must ensure a thorough evaluation of air quality and community impacts prior to adopting any market-based mechanisms, including those within the LCFS. AB 32 requires CARB to consider the potential for direct, indirect, and cumulative emission impacts from market-based compliance mechanisms, including localized impacts. AB 32 also requires CARB to ensure that the design of any market-based compliance mechanism prevents any increases in the emission of

toxic air contaminants or criteria air pollutants. These evaluations are critical to the development and implementation of the LCFS, as an Early Action Measure within AB 32, to ensure that LCFS does not result in creation of localized "hot spots" of pollution and to accurately assess the impacts these mechanisms may cause.

The American Lung Association of California appreciates your attention to our comments and perspectives.

Sincerely,

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American Lung Association of California

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