American Trucking Associations
950 North Glebe Road, Suite 210 * Arlington, VA * 22203
www.truckline.com

January 11, 2010

Lucille Van Ommering
California Air Resources Board
1001 I Street
Sacramento CA 95812

RE: Comments on the Preliminary Draft Regulation for a California Cap-And-Trade Program

Dear Ms. Ommering:

Thank you for the opportunity to comment on the California Air Resources Board's (CARB) Preliminary Draft Regulation for a California Cap-and-Trade Program. The American Trucking Associations (ATA) is the national trade association of the trucking industry. Through our affiliated state trucking associations, affiliated conferences and other organizations, ATA represents more than 37,000 trucking companies throughout the United States.

The trucking industry is the backbone of this nation's economy - accounting for more than 80% of the nation's freight bill and employing nearly 9 million Americans in trucking-related jobs. Trucks deliver virtually all of the consumer goods in the United States. The trucking industry consists of both large national enterprises as well as a host of small businesses, all of whom operate in extremely competitive business environments with narrow profit margins. Roughly 96 percent of motor carriers have 20 or fewer trucks and are considered small businesses.

I. Overview of the Trucking Industry

With more than 600,000 interstate motor carriers in the U.S., the trucking industry is the driving force behind the nation's economy. Trucks haul nearly every consumer good – food, clothing, medicine, appliances, and fuel are all transported by trucks at some point in the supply chain. As the trucking industry's costs increase, the price of all of these essential products also must rise. Few Americans realize that trucks deliver nearly 70 percent of all freight tonnage or that 80 percent of the nation's communities receive their goods exclusively by truck. Even fewer are aware of the significant employment, personal income, and tax revenue generated by the motor carrier industry.

The nearly 9 million people employed in the trucking industry move approximately 11 billion tons of freight annually across the nation. Trucking annually generates $660 billion in revenues and represents roughly 5 percent of our nation's Gross Domestic Product. One out of every 13 people working in the private sector in the U.S. is employed in a trucking-related job ranging across the manufacturing, retail, public utility, construction, service, transportation, mining, and

agricultural sectors. Of those employed in private-sector trucking-related jobs, 3.5 million are truck drivers.

A. Environmental Improvements in the Trucking Industry

The trucking industry's investment in clean diesel technology includes the purchase of new trucks with near-zero emission levels for both particulate matter (PM) and nitrogen oxide (NOx). The 2010 model year marks the third generation of emissions reductions from new heavy-duty diesel engines over the last seven years. Both PM and NOx emissions from new trucks have been reduced by 90 percent in the last four year. Overall, every 60 new trucks purchased today equal the PM emissions produced by a single new truck purchased 20 years ago. Similarly, every 30 new trucks purchased today equal the NOx emissions produced by a single new truck purchased 20 years ago.

However, achieving these significant emissions reductions decreased fuel economy by as much as 8-12 percent over the last seven years; thereby increasing carbon emissions by requiring the trucking industry to burn more fuel. If this trend can be reversed by improving fuel economy, greenhouse gas (GHG) emissions can be reduced.

The new technology for PM and NOx reductions also comes with significant financial costs. For instance, in the case of the diesel engine emission standards imposed in 2002, engine costs increased by $3,000 to $5,000. EPA's 2007 diesel engine standards added another $8,000 to $10,000 per truck. The full implementation of these standards, which begins this year, is expected to increase new heavy-duty engine costs by an additional $8,000 to $10,000. While the industry strongly supports these emission objectives, it should not be lost that these gains come at substantial costs to trucking fleets.

B. Trucking Industry's Carbon Footprint

Ultra low sulfur diesel (ULSD) fuel plays a critical role in the trucking industry. Diesel fuel's high energy content is necessary to transport widely diversified loads under extreme operating conditions and achieve reasonable fuel economy. ULSD also enables the deployment of advanced emission control technologies. However, diesel fuel combustion is also the main source of carbon emissions from our industry. According to CARB estimates, emissions from the transportation sector accounted for 39 percent of California's GHG emission in 2006 while heavy-duty diesel trucks accounted for roughly 6 percent of the total.[1]

ATA strongly supports efforts to reduce GHG emissions and to make this country more energy independent. The question that must be answered is "what is the best way to control GHG emissions in an industry that does not consume diesel fuel or emit carbon on a discretionary basis?" We address this issue in more detail below, describing why a cap-and-trade system is inappropriate for controlling carbon emissions from commercial trucks and then identifying alternative carbon control mechanisms.

[1] California Air Resources Board, *Example Base Allowance Budgets for the California Cap-and-Trade Program, Worksheet 6: 2000-2006 Emissions Detail*, http://www.arb.ca.gov/cc/capandtrade/meetings/121409/capcalc.xls (November 2009)

II. Trucking Industry Concerns Over an Economy-Wide Cap and Trade System

Unfortunately, an economy-wide cap-and-trade system will increase the price and volatility of the diesel fuel the trucking industry depends upon while failing to significantly reduce carbon emissions from our industry. We explain each of these impacts below:

A. Increased Fuel Costs

Diesel fuel is the lifeblood of the trucking industry. In 2008, trucking consumed over 39 billion gallons of diesel fuel, including a large portion of the 2.8 billion gallons of diesel sold in California. A one-cent increase in the average price of diesel costs the trucking industry an additional $390 million in fuel expenses. Fleets spent an astonishing $151 billion on fuel in 2008, a $36 billion increase from 2007 and more than double the amount spent in 2004.

An economy-wide cap-and-trade system requires refineries to purchase carbon allowances to cover their direct refinery emissions and additional allowances to cover the amount of carbon produced by the downstream combustion of the fuels they produce. The costs associated with obtaining these carbon allowances will be passed on to fuel consumers in the form of higher prices. One estimate prepared by the petroleum industry predicts that diesel fuel costs could rise by as much as 88 cents per gallon.[2] While there is little agreement over the exact cost of a cap-and-trade program, the Congressional Budget Office has suggested that the use of offsets could substantially lower the economic cost of cap-and-trade.[3] Unfortunately, the California program proposes to severely limit the use of offsets.

The trucking industry is one of the most competitive industries in the nation, with most companies operating on razor thin margins of 2 - 4 percent. Due to the intense competition within the industry, many trucking companies have difficulty passing cost increases on to their customers. This explains why many trucking companies are reporting that as fuel prices increase, profits are greatly suppressed, if they are making a profit at all.

Fuel price increases take their toll on the trucking industry. With the downturn in the economy and soft demand for freight transportation services, trucking companies are struggling to survive. In 2007, 2008 and 2009, nearly 6,000 trucking companies with at least 5 trucks failed. A large number of companies that operate fewer than 5 trucks have also turned in their keys. Additionally, thousands of independent operators, drivers, and employees have lost their jobs. These hardships surprise few in the industry, but may surprise those less familiar with the nature of freight movement.

Cap-and-trade will not only increase the price of diesel fuel, it also will increase the volatility of diesel prices, as a fluctuating carbon price is added to an already volatile fuel price. Volatile fuel prices make it very difficult for trucking companies to accurately predict their future expenses as

[2] Statement from American Petroleum Institute President Jack Gerard on CBO's Cost Estimate on the American Clean Energy and Security Act of 2009

[3] Congressional Budget Office, *Economic and Budget Issue Brief: The Use of Offsets to Reduce Greenhouse Gas Emissions* (August 3, 2009).

they sign freight delivery contracts. Even those trucking companies that have established a fuel surcharge program designed to pass-on diesel fuel price increases will suffer from the time lag between daily fuel price changes and the periodic surcharge adjustments built in to shipping contracts.

ATA is concerned by the support of various investment banks for a cap-and-trade system, as these Wall Street firms would derive significant profits from volatility in the energy futures markets and the development of a new carbon derivatives market. ATA believes it is critical to enact commodities trading reforms prior to the creation of new physical and derivative carbon markets.

ATA has been a vocal advocate for greater government oversight of the energy commodity derivative markets that impact our industry in order to curb excessive speculation. The dramatic surge in fuel prices in 2008 taught our industry a valuable lesson about the impact of excessive speculation in the energy commodities markets. Carbon markets have the potential to add yet another layer of expense and volatility to the cost of diesel fuel – a cost increase that can very easily devastate trucking company operations.

It is clear that the cap-and-trade proposal will increase the cost of diesel fuel and increase its price volatility. Each of these effects will harm the trucking industry and American consumers.

B. Cap-and-Trade Will Not Reduce Trucking's Carbon Emissions

Perhaps the most troubling aspect of the cap-and-trade approach is that notwithstanding the additional money that consumers will have to spend on diesel fuel, the approach will not significantly reduce carbon emissions from the trucking industry.

The reason that the proposed cap-and-trade program will not reduce carbon emissions in the trucking industry is rooted in the fact that trucking is not a discretionary consumer of fuel. Proponents of an economy-wide cap-and-trade system believe that by increasing the price of fuel, consumers will reduce their consumption. This rationale does not translate well to the trucking industry, which is a *non-discretionary* consumer of fuel.

The trucking industry consumes approximately 39 billion gallons of diesel fuel to deliver virtually all of the nation's consumer goods. This will continue to be the case for the foreseeable future, even if the price of diesel fuel is dramatically increased by cap-and-trade, as the trucking industry does not have any viable near-term alternatives to diesel. While various proponents of alternative fuels point to natural gas and biodiesel as potential alternatives to petroleum-based diesel, for the reasons set forth below these alternative fuels are not currently viable alternatives for the trucking industry.

1. Natural Gas

ATA supports the voluntary use of natural gas as a lower-carbon alternative fuel. Liquefied natural gas (LNG) may reduce carbon emissions depending upon the source of the natural gas and the efficiency of the natural gas liquefaction facility.[4]

LNG is not a viable alternative for most long-haul trucking operations. LNG could be an acceptable fuel solution for certain short-haul applications. Within an industry as diverse as trucking; however, there are significant hurdles to overcome before natural gas can begin to be used as a substitute for diesel fuel.

The cost of a natural gas truck is prohibitively expensive. Natural gas trucks typically cost $40,000 - $75,000 more than a comparable diesel truck. In addition, natural gas trucks weigh more than their diesel counterparts, which impact the amount of freight that a natural gas trucks can legally carry. For a petroleum hauler, a 500 to 1,000 pound weight penalty translates directly to a reduction of 70 to 140 gallons of fuel that the truck can legally deliver to local gas stations. This reduction in payload capacity would require more trucks to deliver the same amount of fuel – dramatically increasing the cost of delivery and eroding much of the carbon reduction benefits that would be derived from using natural gas.

The most significant hurdle to the use of LNG is the lack of a competitive refueling infrastructure. LNG trucks must be refueled at specialized stations that are configured for the specific truck. Running out of gas on the side of the road is a significant challenge as LNG mobile refueling is not an option and the truck would have to be towed to the refueling station. A fast-fill LNG station can cost almost a million dollars to build, which stands as a significant barrier to the development of a competitive refueling infrastructure.

2. Biodiesel

ATA supports the voluntary use of high quality biodiesel in low percentage blends that meet the ASTM-International diesel fuel standard (ASTM D975). Biodiesel is an alternative fuel that can help reduce our dependence on foreign sources of petroleum; however, biodiesel is not a viable low carbon replacement for diesel fuel.

a. Biodiesel - Questionable Carbon Footprint

Our first concern with biodiesel is the uncertainty surrounding its carbon footprint. While EPA has not yet finalized its Renewable Fuel Standard rulemaking, it is clear from the notice of proposed rulemaking that the lifecycle carbon emissions associated with biodiesel are too high for it to qualify as a low carbon alternative. Even if indirect carbon emissions are ignored, the amount of biodiesel that would have to be blended into petroleum-based fuel to obtain meaningful carbon reductions would require the use of biodiesel in high-percentage blends that would no longer meet ASTM on-road diesel fuel standards.

b. Biodiesel - Operational Challenges

[4] California Air Resources Board, *Detailed California-Modified GREET Pathway for Liquefied Natural Gas (LNG) for North American and Remote Natural Gas Sources* (September 23, 2009).

Last year, ASTM-International approved a modification to the on-road diesel fuel standard that will facilitate the use of biodiesel in blends up to five percent (B5). Motor carriers have made enormous investments in heavy-duty diesel engines. These engines were designed and built to run on diesel fuel that meets the ASTM D975 fuel specification. Indeed, engine manufacturers require the use of fuel meeting this ASTM D975 standard in order to preserve warranty claims. High percentage blends of biodiesel will not meet the fuel standard that the diesel engines were designed to run on and may create significant operational challenges for end users.

High-percentage blends of biodiesel gel at a higher ambient temperature than petroleum-based diesel and may cause trucks to become stranded in cold weather. Anti-gelling products, heating systems for fuel tanks and blending with No. 1 diesel fuel have been used to prevent gelling, but each of these options adds to operating costs. High-percentage biodiesel blends also can cause a variety of costly engine problems, and are therefore not recommended for use by engine manufacturers. Even if new trucks were designed to accept high percentage blends of biodiesel, the long lifespan of a diesel engine makes high percentage biodiesel blends an unacceptable alternative for the millions of trucks that comprise the existing fleet.

Another operational challenge presented by biodiesel is that it behaves as a solvent and may dislodge sediment that naturally accumulates in truck fuel systems, likely requiring fuel filter changes in advance of regularly scheduled maintenance. This could be a significant issue and cost for over-the-road trucks, which often travel far from their base of operations.

c. Biodiesel is Expensive

Biodiesel derived from soy oil is significantly more expensive than petroleum derived diesel fuel. The example below illustrates the cost of biodiesel.

The Economics of Biodiesel

Feedstock Costs:	$ 3.07
Soy Oil (7.3 lbs./gal.) @ 39 cents +.03 cents for transport:	
Production Costs:	
Methanol (12%-20% by volume)	$ .10 - .20
Catalyst	$ .10 - .12
Electricity	$ .01
Natural Gas (boiler - heat)	$ .08 - .10
Labor and Overhead	$ .05 - .10
Maintenance	$ .03 - .05
Insurance & Tax	$ .03 - .05
Depreciation	$ .05 - .10
Total Production Costs	**$ 3.52 - $3.80**

While today's wholesale price of biodiesel is between $3.52 and $3.80 per gallon, the wholesale price of ULSD is approximately $2.18.[5] Even with a $1 federal biodiesel tax credit, the price of

[5] Sources: Wall Street Journal (January 8, 2010) and CNBC.com.

biodiesel exceeds the price of ULSD. The recent expiration of this $1 per gallon federal blending credit renders biodiesel unaffordable.[6]

The price difference between biodiesel and ULSD is not an anomaly as the price of soybean oil has varied directly with the price of crude oil. Even during the record high diesel prices during the summer of 2008, biodiesel remained more expensive than ULSD.

In addition to the significant cost differential between biodiesel and ULSD, high percentage blends of biodiesel have a lower energy value, requiring more fuel to be purchased to perform an equivalent amount of work.

C. Cap-and-Trade Should not Apply to Transportation Fuels

Should CARB move forward with a cap-and-trade program, transportation fuels should not be included in this program. As acknowledged by the Pew Center for Global Climate Change, "The main concern with including the transportation sector in a cap-and-trade program is that, in the short term, reducing emissions from transportation is expected to be more costly than other sectors."[7]

The trucking industry will need to expend significant financial resources to comply with existing CARB regulations which span from now through 2023. These regulations will require trucking companies to finance numerous equipment upgrades, including

- Upgrades to transport refrigeration units (TRUs) occurring between now and 2020. Compliance options range from approximately $4,000 to $55,000 per trailer depending upon the condition of the existing TRU and the compliance strategy selected;
- Upgrades to trucks operating at port and rail yard facilities occurring between now and 2020. Compliance options range from approximately $10,000 to $180,000 per truck depending on the condition of the existing truck and the compliance strategy selected; and
- Upgrades to trucks operating throughout the state occurring between 2011 and 2023. Compliance options range from approximately $10,000 to $180,000 per truck, depending upon the condition of the existing truck and the compliance strategy selected.

In total, these state environmental regulations represent an enormous financial burden that California has already imposed on the trucking industry.

Adding the cost of carbon allowances to the price of diesel fuel will further increase the price of the diesel fuel sold in California, which already tends to be higher than the national average.

[6] The House of Representatives passed legislation to restore the biodiesel tax credit, but the Senate has not yet considered the issue.

[7] Pew Center for Global Climate Change, Policy Options for Reducing GHG Emissions from Transportation Fuels (August 2009).

This added cost will further encourage the leakage of fuel purchases from California to surrounding states.

The remainder of these comments addresses other means of reducing carbon emissions from mobile sources, such as the trucking industry.

III. Alternatives for Reducing Carbon Emissions from the Trucking Industry

Trucking is not an industry that chooses to remain on the sideline awaiting new mandates. This is especially true with climate change initiatives. That is why ATA undertook a full analysis of the industry and its operations and began its efforts to develop a GHG reduction plan. The ATA effort took into account the unique nature of the trucking industry and identifies opportunities to reduce its carbon footprint without restricting the delivery of the nation's goods.

The fruits of these efforts culminated in May of 2008 when ATA formally unveiled its sustainability plan entitled *Strategies for Reducing the Trucking Industry's Carbon Footprint.* ATA's bold sustainability program will have an immediate impact on the environment, reducing fuel consumption by 86 billion gallons and reducing the carbon footprint of all vehicles by nearly a billion tons over the next ten years. The ATA plan can achieve real results with far less cost and disruption to our industry sector than under a cap-and-trade scenario. To view ATA's plan, go to http://www.trucksdeliver.org.

The recommendations set out solutions for our industry that are achievable today to reduce GHG emissions. Most notable, ATA supports increasing national fuel economy standards for commercial medium- and heavy-duty trucks that are technologically and economically feasible, do not compromise truck performance, and provide manufacturers sufficient stability and lead time for production. Given that fuel economy in the industry has remained flat over the last quarter century and fuel now is the largest operating expense for many fleets, it is more critical than ever to ensure small and large fleets alike are able to continue to deliver the nation's goods. ATA is working closely with the U.S. Department of Transportation and the National Academy of Sciences as they work to evaluate fuel economy, fuel efficiency, and establish associated standards for medium- and heavy-duty trucks as directed under the Energy Information and Security Act of 2007.

ATA appreciates the opportunity to comment on the preliminary draft regulation. If you have questions concerning these comments, please contact either myself at (916) 300-3161 / mtunnell@trucking.org or Richard Moskowitz, Vice President and Regulatory Affairs Counsel, at (703) 838-1910 / rmoskowitz@trucking.org.

Sincerely,

Michael Tunnell
Director, Environmental Affairs
American Trucking Associations