American Trucking Associations
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December 8, 2008

California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento CA 95812

RE: **Comments on Regulation to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles**

Dear Chairman Nichols and Members of the Board:

The American Trucking Associations, Inc. (ATA) respectfully submits the attached detailed comments on the California Air Resources Board (CARB) proposed Regulation to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles. ATA shares with CARB the mutual goals of improving fuel efficiency and reducing carbon emissions. ATA's efforts to achieve these goals are captured in our sustainability plan entitled *Strategies for Reducing the Trucking Industry's Carbon Footprint*.

ATA and its member companies have also been instrumental in the development of the U.S. EPA's SmartWay[sm] Program. ATA and its member companies have embraced this program because it is effective, allows innovation, and provides the flexibility to deploy equipment and/or make operational improvements. Trucking companies are given the latitude to adopt fuel-savings strategies tailored to their individual business practices, rather than being forced to employ generic approaches that may or may not work in their operations.

The proposed regulation does not provide the type of flexibility trucking companies need to most effectively reduce greenhouse gas (GHG) emissions. Instead, the regulation requires specific equipment to be installed on tractors and trailers with inadequate consideration given to operating environments, equipment performance and maintenance, and potential benefits. By incorporating the following recommendations into the proposed regulation, trucking companies will have greater flexibility to direct their limited financial resources in a manner that most effectively reduces GHG emissions while still meeting or surpassing the targets CARB is seeking.

ATA requests the Board to direct staff to:

1. Develop an additional compliance option which allows companies to be deemed compliant because of their participation in the federal SmartWay[sm] Program.

2. Develop the following credit provisions for the Optional Trailer Fleet Compliance Schedules for companies that have taken proactive steps to reduce greenhouse gas emissions.
    a. SmartWay[sm] certified tractors and trailers which are model-year 2010 and older should be eligible to receive early and/or additional compliance credits.
    b. Credits should be available to fleets that deploy aerodynamic technologies in excess of the compliance requirements.

3. Add the following additional compliance provisions.
    a. A compliance provision is needed to allow 2011 and subsequent model year sleeper cab tractors that are not SmartWay[sm] certified to become compliant with the regulation.
    b. A compliance exception is needed to address situations where operational or safety considerations limit or prohibit the application of the required technologies.
    c. A compliance provision is needed which allows fleets the ability to bring equipment into shops to be repaired.

4. Include provisions in all existing and future on-road vehicle incentive and loan programs which allow companies doing a portion of their business in California to apply for and leverage state funds.

5. Perform more rigorous evaluations of the compliance technologies to ensure that they perform satisfactorily and that actual costs and benefits are considered. A report documenting this evaluation should be submitted to the Board for further consideration no later than December 31, 2009.

ATA seeks the Board's support for the inclusion of these recommendations in the proposed GHG regulation. ATA also would like CARB's support, in terms of financial and personnel resources, in working with the trucking industry and the U.S. EPA to further develop the evaluation protocols necessary to ensure the expected benefits are real and the performance meets the demands of the trucking industry.

Thank you for your consideration.

Sincerely,

Michael Tunnell
Director, Environmental Affairs
American Trucking Associations

Detailed Comments

The American Trucking Associations, Inc. (ATA) respectfully submits the following comments on the California Air Resources Board (CARB) proposed Regulation to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles. ATA is the national trade association of the trucking industry and is comprised of motor carriers, state trucking associations and national trucking conferences created to promote and protect the interests of the trucking industry. Its membership includes more than 2,000 trucking companies and industry suppliers of equipment and services. Directly and through its affiliated organizations, ATA represents more than 37,000 companies and every type and class of motor carrier operation in the U.S., effectively representing the nation's entire trucking industry.

ATA supports improving fuel efficiency and reducing carbon emissions.

ATA shares with CARB the mutual goals of improving fuel efficiency and reducing carbon emissions. ATA's efforts to achieve these goals are captured in our sustainability plan entitled *Strategies for Reducing the Trucking Industry's Carbon Footprint* (details can be found at www.trucksdeliver.org/pdfs/Campaign_Executive_Summary.pdf). This plan takes 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 and harming our national economy. The plan, if fully adopted, would have an immediate impact on the environment, reducing fuel consumption by 86 billion gallons and thus reducing the carbon footprint of all vehicles by nearly a billion tons over the next ten years. In addition, the plan extends the significant progress the trucking industry has already made in reducing its carbon footprint and overall impact on the environment.

The recommendations set out real solutions for the trucking industry that are achievable today to reduce greenhouse gases. The six key recommendations set out in the report are as follows:

A. Enact a National 65 mph Speed Limit and Govern Truck Speeds to 65 mph for trucks manufactured after 1992;

B. Decrease Idling;

C. Reduce Highway Congestion through Highway Infrastructure Improvements;

D. Increase Fuel Efficiency through EPA's SmartWay^{sm} Program;

E. Promote the Use of More Productive Truck Combinations; and

F. Support National Fuel Economy Standards for Medium- and Heavy-Duty Trucks.

In addition to our sustainability plan, ATA and its member companies have been instrumental in the development of the U.S. EPA's SmartWay^{sm} Program. In February 2004, the freight industry and EPA jointly unveiled the program as a collaborative voluntary greenhouse gas reduction program. The program's mantra is "fuel not burned equates to emissions not had."

Many of the SmartWay[sm] Program's charter partners are ATA members. To become a partner, a fleet must commit to reduce fuel consumption through the use of EPA-verified equipment, additives, or other programs. By 2012, the SmartWay[sm] Program aims to save between 3.3 and 6.6 billion gallons of diesel fuel per year and reduce trucking's annual carbon emissions by 48 million tons. This year, it is anticipated that trucking SmartWay[sm] partners will reduce fuel consumption nationwide by over 600 million gallons.

ATA and its member companies have embraced this program because it is effective, allows innovation, and provides the flexibility to deploy equipment and/or make operational improvements. Trucking companies are given the latitude to adopt fuel-savings strategies tailored to their individual business practices, rather than being forced to employ generic approaches that may or may not work in their operations.

ATA seeks Board support for additional recommendations.

ATA submits the following comments on CARB's proposed Regulation to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles. The proposed regulation does not provide the type of flexibility trucking companies need to most effectively reduce greenhouse gas emissions. Instead, the regulation requires specific equipment to be installed on tractors and trailers with inadequate consideration given to operating environments, equipment performance and maintenance, and potential benefits. Mandating fuel-saving strategies or applications that may not work for particular carriers robs them of resources that could otherwise be devoted to more effective strategies. Moreover, some applications may create safety problems when used in inappropriate circumstances. By incorporating the following recommendations into the proposed regulation, trucking companies will have greater flexibility to direct their financial resources in a manner that most effectively reduces GHG emissions while still meeting or surpassing the targets CARB is seeking.

1. **The Board should direct staff to develop an additional compliance option which allows companies to be deemed compliant because of their participation in the federal SmartWay[sm] Program.**

   Trucking companies should be allowed to include the proven measures being used in the federal SmartWay[sm] Program to demonstrate compliance and any motor carrier that has been certified under SmartWay[sm] should automatically be deemed in full compliance with the GHG Regulation. Under the SmartWay[sm] Program, companies submit Action Plans which describe the fuel saving strategies being integrated into their fleet. In addition to aerodynamics, EPA has identified a number of additional strategies to reduce CO_2 emissions, including routing practices, speed management, lubricant use and other practices. By allowing companies to include these strategies as a compliance option under the proposed regulation, CARB would not only benefit by leveraging the reductions being sought under AB 32 with a program which is national in scope but would help to promote participation in the federal program. ATA believes a partnership between CARB, the U.S. EPA and the trucking industry could develop this option to meet the California regulatory requirements while maintaining the structure of the existing federal SmartWay[sm] Program.

2. The Board should direct staff to add the following credit provisions to the Optional Trailer Fleet Compliance Schedules for those companies that have taken proactive steps to reduce greenhouse gas emissions.

a. SmartWay[sm] certified tractors and trailers which are model-year 2010 and older should be eligible to receive early and/or additional compliance credits.

Under the proposed regulation, 2011 and subsequent model year sleeper cab tractors pulling 53-feet or longer trailers would be required to be SmartWay[sm] certified while all other model-year tractors would be required to use low-rolling resistant tires by 2012. Based on CARB estimates, a SmartWay[sm] certified tractor is 3.5 percent more fuel-efficient than a non-SmartWay[sm] certified tractor and 2 percent more fuel-efficient than a non-SmartWay[sm] certified tractor using low-rolling resistance tires. As a result, companies with model-year 2010 and older SmartWay[sm] certified tractors will be achieving greater fuel efficiency than required and should be eligible to receive credits which reflect this additional improvement in fuel efficiency. (A similar situation exists for SmartWay[sm] certified trailers.) These credits could then be accumulated and used as an offset for the trailer requirements (i.e., use of two 2009 SmartWay[sm] certified tractors provides between 4 - 7 percent more fuel efficiency than required and is equal to or exceeds the fuel savings expected from 1 – 1.5 compliant trailers). These trailer-equivalency credits could then be used to meet the compliance obligations under the Optional Trailer Fleet Compliance Schedules.

b. Credits should be available to fleets that deploy aerodynamic technologies in excess of the compliance requirements.

To reward fleets for exceeding compliance requirements and provide added flexibility, fleets should be allowed to generate credits for exceeding the percentage requirements through the installation of aerodynamic technologies. For example, fleet which are able to deploy technologies that provide documented fuel efficiency improvements beyond the specific percentages established in the regulation should be able to receive credits equal to the level of fuel efficiency improvement above the minimum requirements. These credits could then be used, as described above, to meet the compliance obligation under the Optional Trailer Fleet Compliance Schedules.

3. The Board should direct staff to add the following additional compliance provisions.

a. A compliance provision is needed to allow 2011 and subsequent model year sleeper cab tractors that are not SmartWay[sm] certified to become compliant with the regulation.

Under the proposed regulation, all 2011 and subsequent model year sleeper cab tractors pulling 53-feet or longer trailers would be required to be SmartWay[sm] certified in order to operate in California. As written, the regulation does not provide a compliance path for 2011+ non-SmartWay[sm] certified sleeper cab tractors. EPA currently allows only two models of tractors from each manufacturer to be SmartWay[sm] certified. Consequently, a

tractor may qualify for or be equivalent to SmartWay[sm] certification, but because of program limits, not be certified.

Since SmartWay[sm] compliant tractors are comprised of a specific list of features, fleets should have the ability to prove that 2011+ non-SmartWay[sm] certified sleeper cab tractors are equipped or retrofitted with the list of SmartWay[sm] features to demonstrate compliance equivalency. CARB should work with the U.S. EPA to develop these specifications in order to ensure the technologies which comprise an EPA SmartWay[sm] truck and trailer are uniform throughout the country.

b. A compliance exception is needed to address situations where operational or safety considerations limit or prohibit the application of the required technologies.

As written, the regulation does not provide a relief mechanism for trucking companies that are unable to deploy the specified technologies due to operational or safety constraints. For example, carriers conducting operations where sunken docks, extreme cold weather or other factors that compromise the integrity and/or performance of the technologies are still required to install the specified technologies and maintain them in "good operating condition" even though the equipment has not been designed to withstand or perform under these types of conditions. Damages resulting from equipment used outside the manufacturer's specification are generally not covered under a warrantee, leaving trucking companies with no recourse or reasonable compliance options. Of course, deeming compliant companies that participate in the SmartWay[sm] Program would ameliorate this problem by allowing them the flexibility not to adopt unworkable applications.

c. A compliance provision is needed which allows fleets the ability to bring equipment into shops to be repaired.

As written, the regulation requires equipment to be maintained in "good operating condition" or be subject to citation. Since many of the incidents which necessitate repairs will likely occur on California roads, companies need to be able to move this equipment to a repair shop without being cited for noncompliance. Otherwise, damaged equipment will need to be repaired through a road service or possibly towed in order to avoid citations. To avoid this costly and potentially dangerous situation, a fix-it citation should be incorporated into the regulation to allow operators to safely make the necessary repairs to equipment which has become inadvertently damaged.

4. The Board should direct staff to including provisions in all existing and future on-road vehicle incentive and loan programs which allow companies doing a portion of their business in California to apply for and leverage state funds.

Companies which conduct only a portion of their business or mileage in California have traditionally been excluded from applying for any of the incentive programs offered in California. For instance, under the Proposition 1B funding, a vehicle must operate 100 percent of its miles in California to be eligible. Similarly, under the Carl Moyer program,

generally, a vehicle must operate at least 75 percent of its miles in either a specific air district or within the state.

Under the proposed regulation, the vast majority of affected equipment is based outside the state and will require large capital expenditures to comply. According to CARB estimates, only $0.5 billion of the $10.4 billion lifetime cost of compliance is expected to be shouldered by tractors and trailers based in California. And with small business operating 20 or fewer trucks comprising more than 96 percent of trucking companies, financial assistance with the acquisition of the required technologies will be needed. The state's funding assistance programs should be modified to allow companies to leverage state monies with out-of-state monies when determining cost-benefits for regulations which impact operations beyond California.

5. **The Board should direct staff to perform a more rigorous evaluation of the compliance technologies to ensure that they perform satisfactorily and that actual costs and benefits are considered. A report documenting this evaluation should be submitted to the Board for further consideration no later than December 31, 2009.**

ATA agrees with CARB staff's assessment that a relatively small number of tractors and trailers have been retrofitted with aerodynamic technologies and that fleets are relying on other (more cost-effective methods) to reduce their carbon footprints. We also agree with CARB staff's assessment that the up-front capital costs of retrofitting an entire fleet of trailers is one of the barriers preventing fleets from pursuing this option. We disagree, however, with CARB staff's assessment that the conservative nature of the long-haul transport business is a factor. A more plausible explanation is that the competitive nature of the trucking industry forces companies to rely on proven, cost-effective methods which have been thoroughly tested and evaluated.

As CARB staff has indicated, limited independent test data is available for the selected technologies or for the application of these technologies to various vocations or types of equipment. Due to concerns over this lack of data, ATA's Technology and Maintenance Council surveyed its fleet maintenance managers in November 2008 to determine the level of experience fleets have had with the identified technologies. The following summarize the responses from these managers.

- More than 20,000 sleeper cabs and nearly 50,000 53-feet trailers were operated by the fleet managers who responded. The majority of this equipment is operated in California.
- Very few managers reported having experience with the technologies being required under CARB's proposed GHG regulation.
- More than 4,000 of the sleeper cabs operated by these managers were SmartWay^{sm} certified with reported average fuel economy being close to the 3.5 percent improvement cited by CARB. Damage to the tractor fairings and the weight

penalty associated with the added features were cited as performance issues.

- More than 3,000 sleeper cabs and less than 100 day cabs were reported to use low-rolling resistance tires. While the average fuel economy improvement for sleeper cabs was higher than the improvement cited by CARB, the improvement for day cabs was lower. Lower tread life and loss of traction, especially in snow and ice, were cited as performance issues.
- Fewer than 200 trailers with side skirts were reported to be in operation. Average fuel economy improvements were lower than CARB's estimate. Durability, damage during normal maneuvering, and incompatibility with trailers having sliding tandems were cited as performance issues.
- Fewer than 250 trailers with front fairings were reported to be in operation. Average fuel economy improvements were better than CARB's estimate. Gap spacing restrictions to meet California's 65-feet length limit on secondary roads was cited as a performance issue.
- Fewer than 4,500 53-feet trailers with either low-rolling resistance dual or single wide tires were reported to be in operation. Average fuel economy improvements were similar to or better than CARB's estimate. Less tread wear resulting in more frequent tire changes and poor casing life reducing the number of recaps were cited as a performance issues.
- No experience was reported with rear trailer fairings or SmartWay^{sm} certified trailers.

As these results indicate, trucking fleets have very limited experience with the technologies CARB is proposing to mandate. Wide variations in the fuel economy improvements and cost of the technologies were also reported.

To better quantify the fuel economy improvements associated with aerodynamic devices and other fuel saving methods, ATA has been working with the U.S. EPA SmartWay^{sm} Program to develop a test protocol. ATA continues to work with EPA to address several unresolved testing issues in an effort to facilitate the introduction of fuel saving strategies while ensuring the benefits are real and applicable to the appropriate operating environments. ATA welcomes and encourages CARB participation and funding assistance with this effort to ensure the expected benefits are real and the performance meets the demands of the trucking industry.

Given the limited experience and wide variations in performance and cost, it is insufficient to base the projected benefits and costs of these technologies on a single scenario that may or may not reflect the operations of the affected fleets. For example, estimated cost savings are based on an assumed average long-haul mileage accrual rate of 125,000 miles per year. The Truck & Bus regulation, however, estimates an average accrual rates for these same vehicles ranging from 75,000 to 85,000 miles per year, based

on CARB's review of trucking company's actual International Registration Plan and International Fuel Tax Agreement records.

With the large number of assumptions concerning operating speeds, annual mileage, fuel costs, capital and maintenance costs, as well as other factors used to estimate benefits and costs, additional analyses are need to determine how sensitive benefit and cost estimates are to changes in these factors. In addition, despite the prediction of an immediate net economic benefit, the actual calculations used to determine this benefit have not been provided. For example, an expectation of lower future technology costs due to economies of scale is cited, but the assumed technology-specific future year costs are not provided.

In addition, an assessment of the manufacturing and distribution capabilities for the required technologies is needed. According to CARB, the number of trailer aerodynamic devices is expected to increase from a current estimate of a few thousand devices to more than 1 million devices. The manufacturing capabilities and the ability to distribute (and install, in light of the substantial number of retrofits required) these devices, have not been identified. For example, trailer renting and leasing is an important component of the trailer distribution network, yet impacts on this segment of the industry are not included in CARB's evaluation. The connection between the manufacturing network and the distribution network needs to be further investigated to identify the capability to deploy the required equipment in the timeframe provided.

Another component which is largely ignored is the fact that many of the affected trailers are not owned by trucking companies, but are instead owned by shippers. Shippers located outside California, who may have little knowledge or experience with the regulation, will be responsible for ensuring that loads destined for California are in compliant trailers. The burden of this regulation; however, falls not on these shipper but on the truck drivers who must refuse noncompliant loads or be subject fines. Unless every trailer is California-compliant, the inefficiencies of this system will create detrimental effects on the movement of goods as well as emissions.

Finally, the impact of the proposed regulation on individual businesses (and households) is poorly characterized, especially in the current climate of economic uncertainty and scarce credit. With an estimated cumulative capital cost of more than $10 billion, multi-year scenarios should be provided which characterizes the timing and level of financing required for individual businesses. This type of analysis can help identify the types of disruptions businesses could face under the proposed regulation, such as the prospect of some businesses losing money or going out of business. This information is also critical in helping decision-makers understand the extent of investment required.