

Before the:

U.S. Environmental Protection Agency
(Docket No. EPA-HQ-OAR-2010-0162)
and U.S. Department of Transportation,
National Highway Traffic Safety Administration
(Docket No. NHTSA-2010-0079)

Comments of the:
AMERICAN TRUCKING ASSOCIATIONS, INC.

On the:

*Greenhouse Gas Emissions Standards and Fuel Efficiency Standards
for Medium- and Heavy-Duty Engines and Vehicles; Proposed Rule
(Federal Register, November 30, 2010, Pg. 74152)*

January 31, 2011

Introduction

The American Trucking Associations, Inc. (ATA), with offices at 950 North Glebe Road, Suite 210, Arlington, Virginia 22203, is the trade association that represents the U.S. trucking industry.¹ As the national representative of the trucking industry, ATA is interested in advancing fuel efficiency and reducing the carbon footprint of the trucking sector. For this reason, ATA is submitting these comments on the *U.S. Environmental Protection Agency and National Highway Traffic Safety Administration Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles; Proposed Rule* published in the *Federal Register* on November 30, 2010, Pg. 74152.

The trucking industry is composed 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. According to the U.S. Department of Transportation (DOT), 96% of motor carriers have 20 or fewer trucks. For small carriers in particular, their livelihood can be dramatically impacted by new regulatory requirements.

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 at some point in the supply chain. Few Americans realize that trucks deliver nearly 70% of all freight tonnage or that 80% 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. Nearly seven million people employed in the trucking industry move approximately 8.8 billion tons of freight annually across the nation. Trucking annually generates \$544 billion in revenues and represents roughly five percent of our nation's Gross Domestic Product. One out of every 15 people working in the private sector in the U.S. is employed in a trucking-related job including the manufacturing, retail, public utility, construction, service, transportation, mining, and agricultural sectors. Of those employed in private-sector trucking-related jobs, 3.2 million are truck drivers.

ATA supports efforts to reduce greenhouse gas (GHG) emissions and reduce the nation's fuel consumption to make this country more energy independent and ensure our industry is as green and fuel-efficient as possible. Fuel economy of line-haul trucks has not improved appreciably over the last quarter century and average fuel economy of between 6.0 and 6.5 miles per gallon is not acceptable to our industry. ATA let its position be known when it unveiled its industry sustainability plan in May 2008 entitled *Strategies for Reducing the Trucking Industry's Carbon Footprint* (more commonly referred to as the ATA Sustainability Plan) (http://www.trucksdeliver.org/pdfs/Campaign_Executive_Summary.pdf). Included in the plan's six key recommendations, ATA endorsed national fuel economy standards for medium- and heavy-duty trucks that are both technologically and economically feasible. In May 2010, ATA participated in President Obama's Rose Garden event whereby he signed a Presidential Memorandum directing DOT

¹ ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interests of the trucking industry. Directly and through its affiliated organizations, ATA represents more than 37,000 companies encompassing every type and class of motor carrier in the United States.

and the U.S. Environmental Protection Agency (EPA) to develop a standard to improve fuel efficiency starting with the model year 2014 and establishing the goal of issuing a final rule by July 30, 2011.

In its capacity as the representative of the trucking industry, ATA regularly comments on matters affecting the national trucking industry's common interests, providing its expertise and understanding of the industry to help avoid unintended consequences from proposed regulatory requirements. While ATA supports the underlying goals of EPA's and the National Highway Safety Administration's (NHTSA's) proposed rule, our comments outline our members' concerns with this rulemaking. The key points we raise include:

- Clean Air Act Section 203 Tampering Provisions Should not Apply to Fleets
- Vehicle Labeling Requirements Must be Revisited
- Requirement for 5-Minute Automatic Engine Shutdown Device Needs to be Stricken
- Additional Research is Needed for Safety Effects of Low Rolling Resistance Tires
- Tire Useful Life Should be Taken Into Account
- Need for Harmonization Between State and Federal GHG/Fuel Economy Programs
- Limited Flexibility Must be Built Into the Use of Speed Limiters
- EPA's SmartWay Program Must Remain Intact
- EPA's On-Board Diagnostics Rule Should not Monitor for GHG's
- OEM's Should not Limit Vehicle Purchasing Options
- Trailers Should not be Regulated Under the Rule
- Truck Weight and Payload Application Rates Should be Adjusted
- Aerodynamic Approach Needs to be Reassessed
- Vocational Vehicle Definition Should be Revisited
- Baseline Determinations Need to be Changed
- Need for Natural Gas Conversion Factors
- Hybrid Drive Cycle Weightings Should be Changed
- Rule Must Encourage the Further Advancement of Hybrid Vehicles
- Technology Application Rates Appear to be High
- Penalty Provisions Should not be Duplicative
- Flexibility is Needed for Certification for Early Introduction Credits
- Projected Fleet Cost Increases Must be Realistic

Comments

A. Clean Air Act Section 203 Tampering Provisions Should not Apply to Fleets

ATA does not consider fuel-efficient add-on equipment on a tractor as emission control devices subject to the provisions under Clean Air Act Section 203. While the agencies could argue that emissions of carbon or fuel consumption would be reduced by "x" percentage if certain equipment were to be added onto a tractor, it is a stretch to infer Congress ever intended for a piece of plastic or a streamlined mirror to be an emission control device. We do not contest that modifications made to an engine with improved fuel efficiency be subject to enforcement actions if tampered. To shift liability onto the shoulders of fleets will result in unintended consequences regarding the success of this rule.

Fleets will not specify fuel-efficient equipment when they place their orders with manufacturers if they will be subject to inspections and the possibility of enforcement actions. In the alternative, fleets will invest in fuel-efficient equipment in the aftermarket which will not benefit original equipment manufacturers (OEM's) in meeting their targets nor the agencies' objectives.

ATA's member fleets are concerned with potential liability under the Clean Air Act's anti-tampering provisions and have raised the following examples during a recent industry stakeholder meeting:

- Example 1: A company purchases a model year 2014 Class 8 tractor with aerodynamic skirts and mirrors. The driver miscalculates the angle of the loading dock when backing up and accidentally damages a tractor skirt and one of the aerodynamic mirrors. Is incidental damage or the failure to repair this equipment in a timely manner considered tampering with an emission control device subject to an enforcement action under this scenario?
- Example 2: A company purchases a model year 2014 Class 8 tractor with dual low rolling resistance tires. The fleet has a blowout on a drive axle tire and replaces it with a conventional tire during the period the original tire would have remained under warranty. Is the company tampering with an emission control device subject to an enforcement action?
- Example 3: A company purchases a model year 2014 Class 8 tractor equipped with a roof fairing. In Chicago and New York, there are specific locations whereby a truck can not make it under a viaduct or bridge because it is under the 13' 6" clearance height. Some straight trucks are made with 12' 6" boxes in order to accommodate runs in the French Quarter and other similar areas. Is a company subject to enforcement action if they periodically alter their fairing heights to accommodate these types of situations?
- Example 4: A company purchases a model year 2014 Class 8 tractor with dual low rolling resistance tires on the steer axle and wide-base low rolling resistance tires on the drive axles. The company does not maintain their tire pressure to manufacturer specifications thereby reducing their fuel efficiency compared to inflating to manufacturer specifications. Could the company be cited for tampering with an emission control device for failure to maintain proper tire inflation?

Enforcement should only occur when a vehicle is first placed into commerce. Section 207 of the Clean Air Act states that compliance by vehicles and engines "in use" is done through manufacturer warranties that are provided to purchasers. EPA should also clarify that tampering does not include modifications to in-use GHG-related controls or equipment. An over-riding presumption must be recognized that fleets purchasing expensive, fuel-efficient technologies have the intent to both use and maintain such equipment. To do otherwise would be economically counter-productive and ill-conceived.

EPA should expressly state in the final rule that vehicle owners/operators are not liable under Section 203(a)(3)(A) of the Clean Air Act for modifications or maintenance of a vehicle's GHG controls aside from efforts to defeat engine standards arising under the proposed rule. ATA further

believes that tampering with fuel-efficient add-on devices are not part of a vehicle's "emission control system" as that term has historically been understood.

B. Vehicle Labeling Requirements Must be Revisited

While ATA fully supports engine labeling modifications under the proposed rule, ATA does not endorse the use of labels for inspections of vehicle configurations. Section 207 of the Clean Air Act limits inspections after sales only to ultimate consumers whereby "the owner of such vehicle or engine voluntarily permits such inspection to be made, except as may be provided by any State or local inspection program". ATA is concerned over the proposal to affix labels onto tractors as a means for allowing field inspectors to identify whether a vehicle is certified, and if so, whether it is in the certified configuration. While it is unclear where such a vehicle configuration label would be affixed, it is clear that the intent of the label is to aid field inspectors to identify and likely enforce against vehicle owners and/or operators.

ATA questions the placement of additional labels on vehicles for a variety of reasons. Complex or confusing labeling requirements will tend to make roadside enforcement more difficult, more time consuming, and subject to widely-varied interpretations by inspectors. Enforcement personnel shy away from dealing with it.

Complications and confusion will arise when a carrier's truck with after-market equipment is inspected. If a model year 2014 truck is equipped with aftermarket technologies but has no label, a needless burden of time and proof is placed in the laps of truckers and their respective companies. Will an inspector cite the truck for not having a proper label in this instance? What administrative, legal, and financial costs will fall on the shoulders of drivers and trucking companies to prove their innocence?

A label on the outside of a vehicle may fall off, wash out, be stolen, or destroyed if a truck sustains damage. Inspection of a label located inside a truck would not only be intrusive to drivers, but also counter-productive to safety concerns involving mandatory rest periods for drivers under the federal Hours-of-Service requirements should drivers be awakened for inspections.

Any focus by inspectors on new vehicle configurations will likely divert inspectors' attention away from older vehicles which may be less safe. The agencies, like ATA, wish to avoid any unintended consequences arising under this rulemaking. Improving safety is imperative to the trucking industry and we wish to keep the focus of inspections first and foremost on safety.

C. Requirement for 5-Minute Automatic Engine Shutdown Device Needs to be Stricken

ATA does not support the proposed deployment of a tamper-proof, automatic engine shutdown devices. According to the proposal, all Class 8 sleeper cabs must include 5-minute engine shutdown devices without override capabilities.² While ATA supports efforts to reduce unnecessary idling, the mandatory use of this technology warrants additional considerations. Complicating this approach are

² 75 FR 74152, 74223

the various state and local idling regulations which are currently in place.³ While such idling limits range from 0 to 15 minutes, a variety of exemptions and exclusions are made for emergency vehicle use, ambient air temperatures, traffic congestion, routine maintenance, and other activities which the rule does not address. Given the multitude of exemptions and exclusions deemed necessary by state and local governments, a 5-minute engine shutdown device without override capabilities is too simplistic to address real world operating situations by fleets. Such stringency in the agencies' approach will lead fleets to purchase idling reduction equipment in after-markets to enable them to regulate their engine shutdown capabilities.

In 2006, the California Air Resources Board (CARB) adopted a regulation mandating 5-minute engine shutdown devices for heavy-duty diesel engines.⁴ The California regulation provides additional flexibilities when the parking brake is not engaged as well as a prescribed warning and reset system. In addition, specific override conditions are identified such as when operating in a power take-off mode, engine coolant drops below a certain temperature, exhaust controls need to regenerate, and performing maintenance. While ATA does not offer an opinion as to the adequacy of these additional flexibilities, they serve to highlight the fact that the projected 100% penetration rate may be overly optimistic and additional flexibilities or alternatives are needed.

California also provides an "in-lieu-of idling" emission standard that allows engine manufacturers to forego the use of automatic shutdown systems. Based upon a review of California certification orders, few heavy-duty diesel engines currently incorporate a 5-minute shutdown system, and instead, comply by way of the in-lieu-of standard.⁵ ATA believes this reflects customer demand which may be driven by a desire to maintain flexibility with regards to engine operations. Many of these customers employ management systems which allow them to monitor and take proactive steps to reduce engine idling, such as deploying idle reduction technologies.

The overriding presumption should be that if a fleet purchases an idling reduction device, the intent is to use the device and not to circumvent the myriad of local and state idling laws across the country. ATA is opposed to the installation of a mandatory, tamper-proof 5-minute shutdown device based upon safety and other concerns. ATA also recommends that a baseline "assumption" be built into the Greenhouse Gas Emission Model (GEM) that a vehicle equipped with an idling reduction device will not idle for more than 5-minutes. Vehicle manufacturers should be credited with the same efficiency benefits afforded as if such a mandated 5-minute shutdown device was installed on the vehicle.

D. Additional Research is Needed for Safety Effects of Low Rolling Resistance Tires

The safety effects of low rolling resistance tires are not well understood. While the proposed rule provides only cursory discussions of potential safety impacts, further documentation and/or research in support of these discussions is needed to better evaluate the conclusions presented. While both EPA's and NHTSA's primary focus under this rulemaking is on tire rolling resistance, the agencies must not lose focus on the issue of tire traction.

³ See www.atri-online.org

⁴ 13 CCR §1956.8(a)(6)

⁵ See www.arb.ca.gov/msprog/onroad/cert/cert.php

For example, some motor carriers have expressed concerns that low rolling resistance tires do not provide the traction performance they require, especially during adverse weather conditions. ATA's review of published literature revealed few studies which provide quantifiable traction performance evaluations with respect to the low rolling resistance tires, especially for commercial truck tires. Other studies which have focused on passenger vehicle tires acknowledge that traction may be affected by modifying a tire's tread to reduce rolling resistance but detailed analyses were unavailable.

With projected application rates for low rolling resistance tires for Class 7 and 8 trucks ranging from 60% to 90%, new truck purchasers will need to understand which applications may, or may not, be appropriate for these tires. Currently, the lack of detailed information on the performance of low rolling resistance tires precludes this type of evaluation. Issues including traction under wet or icy conditions, braking impacts during descents, and pavement wear need to be further addressed. ATA asks the agencies to further study and fully understand the costs and benefits of each of these aspects before finalizing the rule.

E. Tire Useful Life Should be Taken Into Account

Fuel-efficient tires need to improve wear rates such that our industry is not adversely impacting the environment by way of putting more casings into landfills and increasing natural resource use and fuel consumption in manufacturing their replacements. For example, wide base single tires have shown poor tread wear in tighter turning conditions of urban operations.⁶ This may result in higher wear out rates if the rule encourages the use of wide base single tires in these types of operations. When measuring efficiency improvements, it must be done with consideration of cradle-to-grave costs and consequences.

Few disciplines are as unforgiving as tire design. Engineer a tire for maximum grip and it may wear too rapidly; specify rubber that will deliver the best fuel economy and it may impact traction. With about 25 million new truck tires sold in the U.S. every year, extending the useful life of fuel-efficient tires not only represents a substantial savings of natural and synthetic rubber, but also reduces the fuel consumption and GHG emissions associated with production of their replacements.

F. Need for Harmonization Between State and Federal GHG/Fuel Economy Programs

The *Preamble* to the rule notes that the agencies' on-going work with the State of California and CARB will result in California and CARB adopting regulations equivalent in practice to this rulemaking. ATA was also informed that efforts were being pursued to align California's truck and trailer GHG requirements with the federal rule. Harmonization of this rule with California's (or any other states for that matter) is an extremely high priority for ATA. Given the interstate nature of trucking, national consistency in regulatory approaches is critical.

⁶ Committee to Assess Fuel Economy Technologies for Medium- and Heavy-Duty Vehicles, National Research Council, Transportation Research Board, Technologies and Approaches to Reducing Fuel Consumption of Medium- and Heavy-Duty Vehicles, p. 137 (2010).

The State of California currently requires 2011 and newer sleeper cab tractors, when pulling a 53-foot trailer, to be SmartWay certified. The proposed rule, on the other hand, does not address trailer GHG and fuel efficiency improvements. Whether 2014–2018 model year sleeper cab tractors sold under the proposed rule will meet the SmartWay certification requirements in the state is not addressed. With anticipated fuel economy improvements of up to 20%, it would appear many tractors under the federal rule will be aligned with the intent of California’s SmartWay certification process. However, due to the California requirements, SmartWay certification is required. ATA requests clarification on how the proposed rule will align with SmartWay certification and the sleeper cab tractor requirements under California’s Heavy-Duty Vehicle Greenhouse Gas Regulation.

It is both unwise and unhealthy for the nation’s economy and the movement of the nation’s freight to allow a patchwork of state and federal GHG and fuel consumption standards for trucks to go unchecked. It is critical for EPA, DOT, CARB, and the other 49 states to coordinate their efforts not only in this first round of regulation, but also in developing the next round of standards for trucks. EPA, DOT, and CARB have been working closely together on the light-duty rule and announced on January 24 that they intend to coordinate their efforts in pursuing a national approach for fuel economy and GHG standards for model year 2017-2025 cars and light-duty trucks. Resolution of how the proposed rule will align with California’s efforts is needed in advance of issuing the final rule.

G. Limited Flexibility Must be Built Into the Use of Speed Limiters

Reducing speed is a proven way to reduce GHG’s and fuel consumption. To this end, ATA filed a petition with NHTSA and the Federal Motor Carrier Safety Administration (FMCSA) in October 2006 seeking a new federal requirement that electronic speed limiters on new trucks be incapable of being set at speeds greater than 68 mph. Subsequently, ATA’s Sustainability Plan released in May 2008, and ATA’s October 2008 Safety Task Force Report called for the enactment of a national 65 mph speed limit for all vehicles and the electronic governing of truck speeds at no more than 65 mph for all large trucks manufactured after 1992.

ATA will continue to advocate for lower average speed of all vehicles, including the mandatory electronic speed governing of large trucks. This is a simple and cost-effective approach to improving fuel economy and reducing GHG emissions. To this end, we seek workable solutions to encourage fleets to select a speed limiting option when they order a new tractor. ATA proposes the following:

- Pro-rate the GEM input credits to average fleet trade-in cycles
- Allow fleets to reset and lower their speed limiters if company policies change during the ownership cycle in which the manufacturer is receiving GEM input credit
- Allow manufacturers to account for additional GEM input credits associated with the resetting of speed governors made within the useful life of a vehicle

H. EPA's SmartWay Program Must Remain Intact

The SmartWay program, unveiled in 2004, is a ground-breaking voluntary GHG reduction program developed by EPA, ATA, shippers, and other stakeholders. The partnership creates strong market-based incentives that challenge companies shipping products and the trucks delivering these products to improve the environmental performance of their freight operations. Under the program, SmartWay partners increase their fuel efficiency, reduce GHG emissions, improve overall air quality, and are given preference by SmartWay shipper partners.

The proposed rule is carefully intertwined with the SmartWay program in that many of the technologies, metrics, and verifications are a result of this important program. The tremendous success of SmartWay is reflected in its doubling in size almost each year. ATA members and shippers alike have come to depend upon SmartWay for providing a universal measuring stick for freight efficiency. Shippers increasingly require fleets delivering their goods to be SmartWay partners as a contractual condition to assist them in reducing their carbon footprint and help them maintain their partnership status in the program. Shippers have come to rely on SmartWay as the common metric of choice to compare the efficiency and carbon footprints of freight movements. For these reasons, ATA included the continuation and growth of the program as another critical pillar in our Sustainability Plan previously referenced.

President Obama's Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, was signed in October 2009. The Executive Order requires each federal agency to produce a plan and declare a percentage reduction in GHG emissions over the next 10 years. A major component in these plans is the reduction of GHG's from the transportation sector. ATA has been working closely with federal agencies advocating for them to use SmartWay as their metric for trucking fleets since our industry is familiar with the program and doing so would promote consistency across the federal government.

Going forward, the SmartWay program should be fully recognized for any related GHG reductions from fuel-efficient technologies purchased by SmartWay partners. ATA understands the agencies' wish to promote such advances under the rule. Keep in mind that SmartWay partners are purchasing fuel-efficient equipment not as a result of the rule, but rather to maintain their standing in the SmartWay program, receive higher SmartWay scores, increase profit margins, and maintain their public image.

Due to the benefits provided by the SmartWay program, coupled with the extent to which shippers, carriers, and the public have come to rely upon it, it is imperative that the program continues to exist and gets proper recognition for GHG improvements by partners after the regulation is finalized.

I. EPA's On-Board Diagnostics Rule Should not Monitor for GHG's

In February 2009, EPA issued a final rule requiring On-Board Diagnostic (OBD) systems on diesel highway heavy-duty vehicles. The rule requires the emission control systems of large highway diesel and gasoline trucks to be monitored for malfunctions using onboard diagnostic systems similar

to those required on passenger cars since the mid-1990s. For highway applications over 14,000 pounds, EPA requires that one engine family per manufacturer be certified to the OBD requirements in the 2010 through 2012 model years. Beginning in 2013, all highway engines for all manufacturers will have to be certified to the OBD requirements.

In 2010, the federal government requires these “detection sensors” indicate when emissions reach five times the acceptable level. In 2013, that threshold gets ratcheted down to three times the acceptable level – with the thresholds continuing to drop through 2019. CARB wants to speed up that timetable, hence the debate between EPA and CARB.

The current OBD schedule is already an aggressive schedule for OEM’s to meet. To add another element into the current OBD platform at this time would be costly to design and difficult to achieve, if even practical.

While the agencies do not “anticipate the necessity of having any unique on-board diagnostic provisions” to wrap in GHG emissions, ATA requests the agencies include language in the final rule confirming that the OBD requirements will not be expanded to include GHG emissions. In addition, ATA further requests EPA and CARB agree to exclude the monitoring of GHG’s from any future OBD requirements in California as well.

J. OEM’s Should not Limit Vehicle Purchasing Options

OEM’s will comply with the rule by selling more efficient tractors and engines. Shortfalls in meeting their targets can be supplemented with either early introduction, innovative technology, or advanced technology credits. The trucking industry is very diverse and vehicles are traditionally ordered with equipment tailored for specific applications. ATA and its member fleets remain concerned that certain equipment the industry has relied upon by the industry may no longer be manufactured and offered for sale due to their lower overall efficiency numbers. If such a scenario does in fact play out, fleets may be forced to purchase equipment that is, in fact, less efficient than the GEM model affords credit since the equipment is no longer properly paired with its specific work application.

This scenario is a real concern for the trucking industry. Fleets want to be assured that the vehicles they purchase are best-suited for their needs. Trucking customers are so specific with their truck orders that they would rather wait to get the exact truck they need than take what is available. In a worst-case scenario, a fleet may explore the newer, used truck market or extend their normal trade-in cycles. This situation has occurred recently with the elimination of cab-over tractors. Companies that were employing these tractors, in many cases to comply with vehicle length limitations, have been forced to extend the life of their existing tractors and forego vehicles with advanced emissions controls, or reconfigure to shorter trailers, resulting in more truck trips. Technologies that add additional weight to a truck and/or increase a company’s capital costs without optimizing fuel consumption and GHG reductions will reduce the potential benefits of the rule.

Truck dealers have indicated that they will likely be placed in a position of taking delivery of more efficient trucks from OEM’s to secure lower truck financing incentives or other concessions

even though the demand from their customers for such vehicles may not be high. Since there is a high probability that certain vehicle lines may be discouraged or discontinued, the improper pairing of equipment will likewise increase as well. ATA requests that the agencies take into account the mispairing of equipment in their fuel consumption and GHG reduction estimates and provide a means of accommodating existing, less fuel-efficient configurations so as not to penalize dealerships from selling or fleets from buying and continuing to use such configurations.

K. Trailers Should not be Regulated Under the Rule

While ATA recognizes the potential for fuel-efficiency gains from improved trailer design, ATA concurs with EPA and NHTSA in that trailers should not be regulated under the current rulemaking effort. The trailer manufacturing industry is far different from the engine and truck manufacturing sectors. Whereas there are only a handful of truck and engine manufacturers, there are well over 100 trailer manufacturers in the U.S. with almost all being designated as small businesses. The top 10 trailer manufacturers account for over 75% of total sales. Unlike the business relationships between engine and truck manufacturers, trailer manufacturers remain separate and unique entities.

The potential for trailers to reduce GHG's and fuel consumption requires far more research and study for several reasons. Trailers come in a variety of different styles including dry vans, refrigerated, tank, flat bed, and specialized to name a few. The ratio of trailers to tractors is 3:1 and upwards and tractors are often paired with a variety of different trailer types depending on a company's operations. Adding another level of complexity to the equation, the useful life of a trailer can exceed 20 years with proper maintenance and even be remanufactured to provide many more years of useful life.

As we near the 100-year anniversary of the anniversary of the tractor trailer, ATA agrees that it is time to reassess its design elements. Such an approach should be nationally harmonized and not be done piecemeal such as the approach California has already undertaken as previously discussed above. As a key stakeholder, ATA desires to work with the agencies in developing a logical and cost-effective approach in addressing this issue.

L. Truck Weight and Payload Application Rates Should be Adjusted

As the Agency points out the total weight of a truck (tare-weight + cargo weight) is important because it directly impacts fuel economy and therefore impacts the calculations of GHG emissions and fuel consumption savings from different technologies. It is also important because in large measure it determines such things as stopping distance, fuel-efficiency, and overall productivity.

The agencies relied upon an analysis of the *Vehicle Inventory and Use Survey* (VIUS) undertaken by M.J. Bradley & Associates in 2009 to assess empty trailer weight and payload as a key factor in evaluating GHG emissions and fuel consumption. 75 Fed. Reg. 74152, 74186. From a modeling standpoint given that the establishment of baseline information is critical in serving as a gauge to measure the success of the rule. The analysis, however, is based on a survey that was completed in 2002 and, as a result, does not portray an accurate representation of the weight

distribution of the national heavy truck fleet operating in the country today. Bradley's survey states that combination tractors travel 9% of their miles empty, 61% cube-out, and 30% weighed-out.

ATA recommends that the agencies base their analysis of truck weights using the FHWA Long-Term Pavement Data Base on truck weights over the last several years. A copy of the latest data release (LTPP SDR25, Volume 5 LTAS Database) can be obtained at <http://www.ltpplib.com/products.com/index.asp>.

The FHWA data base shows that the average weight of a 5-axle tractor semitrailer is 54,656 pounds when loaded. ATA's analysis of 5-axle trucks in this database suggests combination tractors travel 20% of their miles empty, 67% cubed-out, and 13% weighed-out.

Class 7 trucks are typically vocational trucks. Realizing that the gross vehicle weight rating of a Class 7 truck is limited to 33,000 pounds, it seems unlikely that the average cargo weight of Class 7 trucks is as high as 25,000 pounds. ATA recommends using a lower cargo weight assumption in developing these baseline weight standards.

From our analysis of the FHWA data, the average weight of a 3-axle truck is approximately 11,000 pounds gross vehicle weight. Three-axle trucks can be Class 2 through 8 vehicles. ATA recommends that the agencies use cargo weights of 5,000 to 10,000 pounds for Class 7 trucks and average cargo weights of 25,000 to 30,000 pounds for Class 8 trucks.

M. Aerodynamic Approach Needs to be Reassessed

The proposed rule fails to consider the fundamental differences between the characteristics and benefits of aerodynamics for high-roof and lower-roof tractors. The proposed certification requirements mean that manufacturers must measure all tractors, which will shift limited aerodynamics experts and facilities from the high-roof tractors where there is a good return on the investment, to low- and mid-roof tractors, an inefficient use of limited resources.

The aerodynamic performance of low-roof and mid-roof tractors receives much less attention from manufacturers for several reasons. Low- and mid-roof tractors are coupled with trailers of different shapes and sizes that carry bulk commodities (e.g., grain, milk, gasoline) or flatbed trailers where the cargo (e.g., steel coils, pipes, off-road equipment) largely defines its aerodynamic shape. The flow air around a low- or mid-roof tractor is unpredictable because of the unpredictable trailer aerodynamics. Moreover, low- and mid-roof tractors are typically not used in high-speed long-haul operations where aerodynamic improvements generate the greatest fuel efficiency benefits. Instead, they typically are used for regional or urban/suburban delivery. Additionally, those tractors frequently transport bulk and haul heavy cargo that reaches maximum allowable weights, and therefore truck operators are incentivized to reduce the tare weight of the tractor to allow carrying more cargo. Customers of low- and mid-roof tractors place a low priority on aerodynamic and, in some cases, specifically request omitting aerodynamic devices in order to reduce the weight of the tractor.

ATA recommends that the agencies develop a simplified process for certifying the coefficient of aerodynamic drag of low-roof and mid-roof tractors to ensure OEM's can focus their resources where the biggest gains from aerodynamic improvements may be achieved.

N. Vocational Vehicle Definition Should be Revisited

Under the rule the agencies classify vehicles as either being on-highway tractors or vocational vehicles. This classification system does not account for tractors that function as vocational vehicles (hauling dump trailers or other limited mileage-type applications) for which high mileage over-the-road technologies will not be appropriate or effective.

Not all tractors are line-haul in application with high annual mileage or high percentages of operation at constant speed. Nearly 10% of the overall U.S. heavy heavy-duty market and approximately 15% of all combination tractors consist of vocational tractors.⁷ This number can be significantly higher based on individual manufacturers' market mix.

The agencies should consider reclassifying tractors which are vocational in application. These tractors may spend some, or even most of their time on highways, but their design must accommodate their off-road requirements. As such, they would be disadvantaged if required to meet the tractor standards which include a requirement, for instance, for low-slung aerodynamic devices, minimized frontal area with reduced cooling capacity, and anti-idle features. In the event the agencies decline to re-categorize vocational tractors into the vocational sub-categories, then ATA requests that the penetration rate tables that define the current baseline outlined in Table III-4 of the *Preamble* be re-evaluated.

O. Baseline Determinations Need to be Changed

The *Preamble* states that a 400-pound weight reduction estimate is an appropriate assumption per tractor if light-weight aluminum steer wheels and aluminum single-wide drive wheels and tire packages are utilized. Without the use of single wide drive tires, a 6x4 tractor will have a maximum weight reduction of 300 pounds if the customer selects all 10 wheels to be outfitted with light-weight aluminum rims. This is a very costly option for no measurable benefit. Through extensive testing and experience, one OEM has determined that to achieve an increase in fuel economy of 1%, the weight of a tractor must be reduced by approximately 3,000 pounds (maintaining all other parameters), and that customers typically cannot measure fuel consumption improvements of less than 1%.

The *Preamble* further states that all vehicles with sleeper cabs will be classified as tractors. Many vocational straight trucks use sleeper cabs for operational reasons and to comply with the DOT Hours-of-Service regulations. To address this concern, vocationally-based tractors should be categorized in accordance with the vocational regulatory sub-categories. In fact, it is impossible to treat a straight truck as a tractor within the provisions of the rule, which require a tractor to be coupled with a specific trailer for aerodynamic evaluation.

⁷ Mack Trucks, Inc. and Volvo Trucks North America.

ATA does not believe that it is appropriate to require a tractor to have a highway engine while requiring vocational vehicle to have vocational engines. It would be more appropriate to allow manufacturers to install an engine in a vehicle that is optimized for its intended application instead of a dual-certified engine that may be optimized to one, the other, or neither duty cycle.

P. Need for Natural Gas Conversion Factors

The proposed rule needs to address the fuel consumption conversion factors associated with the use of natural gas to not disadvantage its use. The current fuel consumption standards are based upon diesel engine data and are not specific to natural gas. Typical diesel fuel is roughly 86% carbon by mass, while natural gas is only 75% carbon by mass. Therefore, two vehicles can achieve the same fuel efficiency, yet one operated on natural gas would have a lower carbon dioxide emissions rate. A natural gas conversion factor that uses carbon content versus energy content is a more logical and desirable aim.

Q. Hybrid Drive Cycle Weightings Should be Changed

The proposed drive cycle weightings for hybrid vehicles, with and without power take-off (PTO), do not match typical real-world hybrid applications thereby under-representing the advantages and benefits of hybrid technologies. There is a need to establish new hybrid duty cycles to reflect the actual duty cycle use of a these vehicles.

ATA believes that that the PTO time in Table IV-3 is greatly underweighted for these vehicles. Further, the proportions of driving time at 55 mph and 65 mph are almost nonexistent and certainly much lower than the percentages set out in Table IV-3. Based on our experience, coupled with input from our members, similar concerns apply to other applications such as residential waste hauling trucks.

R. Rule Must Encourage the Further Advancement of Hybrid Vehicles

Hybrid technology application in the trucking sector continues to make positive strides. Continued incentives through federal legislation and efforts such as the 21st Century Truck Partnership Program are helping manufacturers advance hybrid research and deployment of hybrid vehicles. This rule can also serve an important role in further advancing hybrid market penetration rates. More specifically, the rule seeks comment on whether a 1.5 credit multiplier is appropriate for Advanced Technology Credits such as hybrid powertrain designs. ATA not only agrees that a credit multiplier is appropriate, but recommends that a multiplier of 2.0 be used by the agencies. Short-term incentives to OEM's to increase the introduction and sale of hybrid-platform vehicles will assist in driving down their price, help achieve the goals set out under the rule, and promote the advantages of this green-technology path.

S. Technology Application Rates Appear to be High

In the opinion of ATA, the technology application rates in Table III-4 present some of the most critical information in the *Preamble*. These application rates form the cornerstone of the rule. If these

market penetration rates are set too high, OEM's will be facing an uphill battle from the start in meeting their targets.

The proposed technology application rates appear to be on the high end. If such information was acquired using historical data from the EPA SmartWay program, the numbers may be somewhat more in line. However, SmartWay data should not be the source relied upon given that SmartWay partners tend to purchase more efficient tractors and trailers. The preferred, and more representative, approach is to use market sales across the entire trucking industry.

Discussions with manufacturers and suppliers indicate that the current market penetration rates of aerodynamic packages for Class 7 and 8 vehicles fall more in the range of 7-10% today. Under the proposed rule, the technology application rate for aerodynamic packages in 2014 will be SmartWay (70%) or Advanced SmartWay (20%). ATA urges EPA to work more closely with the OEM's and ensure that these market application rates are more likely than not to occur in a mere two years when we see model year 2014 equipment entering the marketplace.

T. Penalty Provisions Should not be Duplicative

EPA's and NHTSA's penalty provisions are duplicative. Both agencies should not be allowed to penalize a manufacturer for the same act of non-compliance. Given the bifurcation of the proposed rule into separate engine and vehicle requirements, a tractor having engine and vehicle deviations could face anywhere from two to four separate violations if both EPA and NHTSA were to both pursue their enforcement actions.

ATA was pleased to read in the *Preamble* that it is not the intent of either agency to impose duplicative civil penalties and that each agency "intends" to give consideration to civil penalties imposed by the other. ATA urges the agencies to include definitive language in the final rule regarding the imposition of non-duplicative civil penalties for non-compliance.

U. Flexibility is Needed for Certification of Early Introduction Credits

OEM's use of Average Banking & Trading (ABT) credits is rather restrictive. Given that credits are restricted to averaging sets, ATA believes that credits should be used within a vehicle gross vehicle weight rating category, including across vocational vehicles and tractors, and separately within an engine's primary intended service class. For further clarification, ATA supports the trading of ABT credits within weight classes such as Class 8 (heavy-heavy), Classes 4-7 (medium-heavy), and Classes 2b-3 (light-heavy). The agencies should build flexibility into the rule to assist OEM's in achieving their GHG and fuel consumption goals regardless of what path OEM's must take to get there.

V. Projected Fleet Cost Increases Must be Realistic

The trucking industry is wary of cost increase projections associated with federal rulemakings and for good reason. A good example of why ATA is skeptical of such projections is the recent rulemaking to reduce particulate matter and nitrogen oxide emissions from on-road diesel engines

commonly referred to as the EPA 2007/2010 Diesel Engine Emissions Rule. The EPA estimated that the proposed standards would add about \$1,200 to \$1,900 per new vehicle depending on the vehicle size.⁸ However, the trucking industry saw record-setting cost increases up to \$20,000 per new vehicle which equates to an increase between 1,567% and 1,667%. While the current rulemaking is not a technology-forcing standard and fleets will still be able to specify their equipment needs, some aspects of the rule will result in increases and/or pass-throughs related to engine improvements, research and develop costs, and warranty coverage. ATA urges the agencies to use cost estimates that reflect reality when implementation of the rule begins.

Summary of Issues and Recommendations

ATA supports the underlying goals of the rule though we remain concerned about how they may impact our members. Our key issues and corresponding recommendations to the agencies are summed up as follows:

- Clean Air Act Section 203 Tampering Provisions Should not Apply to Fleets
 - Enforcement should only occur when a vehicle is placed into commerce.
 - EPA should expressly state in the final rule that vehicle owners/operators are not liable for modifications or maintenance of a vehicle's in-use GHG-related controls aside from efforts to defeat engine standards arising under the rule.
 - Fuel-efficiency add-on devices should not part of a vehicle's "emission control system" as that term has historically been understood.
- Vehicle Labeling Requirements Must be Revisited
 - ATA does not endorse the use of labels for inspections of vehicle configurations.
- Requirement for 5-Minute Automatic Engine Shutdown Device Needs to be Stricken
 - The overriding presumption should be that if a fleet purchases an idling reduction device, the intent is to use the device
 - ATA is opposed to the installation of a mandatory, tamper-proof 5-minute shutdown device based upon safety and other concerns.
 - ATA recommends that a baseline "assumption" be built into the GEM that a vehicle equipped with an idling reduction device will not idle for more than 5-minutes.
 - Vehicle manufacturers should be credited with the same credits afforded as if a mandated 5-minute shutdown device was installed on the vehicle.
- Additional Research is Needed for Safety Effects of Low Rolling Resistance Tires
 - Issues including traction under wet or icy conditions, braking impacts during descents, and pavement wear need to be further addressed.
 - ATA asks the agencies to further study and fully understand the costs and benefits of each of these aspects before finalizing the rule.

⁸ USEPA Press Release December 21, 2000.

- Tire Useful Life Should be Taken Into Account
 - When measuring efficiency improvements from tires, it must be done with consideration of cradle-to-grave costs and consequences.
- Need for Harmonization Between State and Federal GHG/Fuel Economy Programs
 - EPA, DOT, CARB, and the other 49 states must coordinate their efforts both under current and future rulemaking efforts.
 - Resolution of how the current rule will align with California's existing truck GHG/fuel economy regulation is needed in advance of issuing the final rule.
- Limited Flexibility Must be Built Into the Use of Speed Limiters
 - ATA recommends the agencies' pro-rate the GEM input credits to average fleet trade-in cycles.
 - Fleets should be allowed to reset and lower their speed limiters if company policies change during the ownership cycle in which the manufacturer is receiving GEM input credit.
 - Manufacturers should be allowed to account for additional GEM input credits associated with the resetting of speed governors made within the useful life of a vehicle.
- EPA's SmartWay Program Must Remain Intact
 - The SmartWay program should be fully recognized and receive credit for any related GHG reductions from fleet fuel-efficient technologies purchased by SmartWay partners.
 - EPA should continue to endorse and grow the SmartWay program after the regulation is finalized.
- EPA's On-Board Diagnostics Rule Should not Monitor for GHG's
 - ATA requests the agencies include language in the final rule confirming that the OBD requirements will not be expanded to include GHG monitoring.
 - ATA requests EPA and CARB agree to exclude monitoring of GHG's from any future OBD requirements in California.
- OEM's Should not Limit Vehicle Purchasing Options
 - ATA requests the agencies take into account in their fuel consumption and GHG reduction estimates the potential for fleets mispairing their equipment
 - The agencies should provide a means of accommodating existing, less fuel-efficient equipment so as not to penalize dealerships from selling or fleets from buying and continuing to use equipment best matched to their needs and work applications.
- Trailers Should not be Regulated Under the Rule
 - Any regulation of trailers should be nationally harmonized and not be done piecemeal such as the approach California has already undertaken.

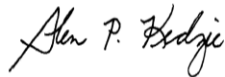
- As a key stakeholder, ATA should be included in any future efforts to regulate trailers to ensure such an approach is both logical and cost-effective.
- Truck Weight and Payload Application Rates Should be Adjusted
 - ATA recommends that the agencies base their analysis of truck weights using the FHWA Long-Term Pavement Data Base on truck weights over the last several years.
 - ATA recommends using a lower cargo weight assumption in developing baseline weight standards.
 - ATA recommends that the agencies use cargo weights of 5,000 to 10,000 pounds for Class 7 trucks and average cargo weights of 25,000 to 30,000 pounds for Class 8 trucks.
- Aerodynamic Approach Needs to be Reassessed
 - ATA recommends the agencies develop a simplified process for certifying the coefficient of aerodynamic drag of low-roof and mid-roof tractors to ensure OEM's can focus their resources where the biggest gains from aerodynamic improvements may be achieved.
- Vocational Vehicle Definition Should be Revisited
 - Vocationally-based tractors should be categorized in accordance with the vocational regulatory sub-categories.
- Baseline Determinations Need to be Changed
 - ATA does not believe it is appropriate to require a tractor to have a highway engine while requiring vocational vehicle to have vocational engines.
- Need for Natural Gas Conversion Factors
 - A natural gas conversion factor that uses carbon content versus energy content is a more logical and desirable aim.
- Hybrid Drive Cycle Weightings Should be Changed
 - There is a need to establish new hybrid duty cycles to reflect the actual duty cycle use of a these vehicles.
- Rule Must Encourage the Further Advancement of Hybrid Vehicles
 - ATA agrees that a credit multiplier is appropriate for advanced technologies such as hybrids and recommends that a multiplier of 2.0 be applied.
- Technology Application Rates Appear to be High
 - ATA urges EPA to work more closely with OEM's and ensure that projected market application rates are more likely than not to occur.
- Penalty Provisions Should not be Duplicative
 - ATA urges the agencies to include definitive language in the final rule regarding the imposition of non-duplicative civil penalties for non-compliance.

- Flexibility is Needed for Certification for Early Introduction Credits
 - The agencies should build flexibility into the rule to assist OEM's in achieving their GHG and fuel consumption goals regardless of what path OEM's must take to get there.

- Projected Fleet Cost Increases Must be Realistic
 - ATA urges the agencies to use cost estimates that reflect reality when implementation of the rule begins.

Trucking is, and will remain, the predominant means of moving the nation's freight. *Without Trucks America Stops*. In fact, by the year 2020, 71% of freight transportation tonnage will be delivered by a truck. We wish to move our goods in the most cost-effective and fuel-efficient manner. To achieve this end, we ask both EPA and NHTSA to work closely with ATA to ensure the successful implementation of this critical rulemaking. ATA stands ready to assist in this historical undertaking. If you have any questions concerning these comments, please contact me at 703-838-1879 or gkedzie@trucking.org.

Respectfully submitted,



Glen P. Kedzie
Vice President & Environmental Counsel
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