

DECLARATIONS IN SUPPORT OF STATE
INTERVENORS' OPPOSITION TO
PETITIONER TRUCK TRAILER
MANUFACTURERS ASSOCIATION'S
MOTION FOR STAY

ORAL ARGUMENT NOT YET SCHEDULED
No. 16-1430 (Consolidated with No. 16-1447)
IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

**TRUCK TRAILER MANUFACTURERS
ASSOCIATION, INC.,**

Petitioner,

v.

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, et al.,**

Respondents.

On Petition for Review of Decision of the U.S. Environmental
Protection Agency and the U.S. Department of Transportation

DECLARATION OF JEFFREY R. MERRELL

I, Jeffrey R. Merrell, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) years and suffer from no legal incapacity. I submit this declaration in support of the Memorandum in Opposition to the Motion for Stay in *Truck Trailer Manufacturers Association, Inc., et al., v. United States Environmental Protection Agency, et al.*

2. I am the Planning Section Chief in the Vermont Department of Environmental Conservation's (VTDEC), Air Quality and Climate Division. I have

worked in Vermont's air pollution control program since 2000 in various capacities. From the year 2000 until 2015 I worked as an Environmental Analyst calculating and reporting air emissions data from Vermont air contaminant sources, and serving as the principal technical expert for the Division regarding greenhouse gas (GHG) emissions. From 2015 to present I have worked as the Chief of the Planning Section, which includes coordinating action on issues vital to human health and the environment, including air toxics, GHG emissions, acid precipitation, visibility, air quality forecasting, and overall protection of air quality in Vermont.

3. My Division's broader responsibilities include implementing air quality programs in Vermont, including developing and implementing policies and programs to comply with and implement the federal Clean Air Act, 42 U.S.C. §§ 7401 *et. seq.*

4. The purpose of this declaration is to provide my understanding of greenhouse gas emissions from air contaminant sources in Vermont, and the extent to which on-road mobile sources, including freight trucking, contributes to greenhouse gas emissions in Vermont.

5. For more than a century, concentrations of heat-trapping greenhouse gases (GHGs) like carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) have been rapidly increasing in the Earth's atmosphere. This buildup of

greenhouse gases boosts the atmosphere's natural effectiveness at capturing and retaining the heat energy we receive from the sun, which in turn causes our planet to warm.¹

6. The scientific consensus is that emissions from human activities are responsible for the majority of the continued rise in atmospheric GHG concentrations, and warming of our planet that has been documented during our modern industrial era. More and more fossil fuels are combusted each year to generate our electricity, power our vehicles, heat and cool our buildings, grow and transport our food. Atmospheric concentrations of these GHGs have now reached levels that are higher than anything experienced in at least 800,000 years,² and will continue to rise unless we take substantial actions to reduce our energy consumption and associated emissions. Failure to do so will greatly increase the likelihood of severe climate-related risks to people and our environment.

7. Like many locations around the globe, Vermont is experiencing first-hand the effects of climate change. Documented impacts in Vermont include

¹ U.S. Environmental Protection Agency. 2016. Climate change indicators in the United States, 2016. Fourth edition. EPA 430-R-16-004. www.epa.gov/climate-indicators.

² IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

trends toward warming temperatures in all seasons, longer growing and freeze-free seasons, decreasing snow depth, increasing annual precipitation, and more extreme precipitation events; which in turn can contribute to an array of adverse impacts to human health.³

8. In Vermont, onroad transportation contributes a higher percentage (nearly 38%) than any other emissions source category to total statewide GHG emissions. Onroad diesel vehicles are responsible for nearly 19% of the total onroad GHG emissions.⁴ Trucking is the most common mode for freight movement in VT, accounting for approximately 91% of the total freight tonnage transported.⁵ It is expected that freight truck traffic may grow by more than 40 percent on many of the state's highways by 2035.⁶

³ Vermont Department of Health. Vermont Climate and Health Profile Report – Building Resilience against Climate Change in Vermont. September 2016. http://www.healthvermont.gov/sites/default/files/documents/2017/01/CHPR_Sept7_2016.pdf

⁴ Vermont Department of Environmental Conservation – Air Quality and Climate Division. Vermont Greenhouse Gas Emissions Inventory Update 1990-2013. July 2017. http://dec.vermont.gov/sites/dec/files/aqc/climate-change/documents/Vermont_Greenhouse_Gas_Emissions_Inventory_Update_1990-2013.pdf

⁵ Vermont Agency of Transportation. The Vermont Transportation Energy Profile. October 2015. <http://vtrans.vermont.gov/sites/aot/files/planning/documents/planning/Vermont%20Transportation%20Energy%20Profile%202015.pdf>

⁶ Vermont Agency of Transportation. Vermont Freight Plan. Revised June 2017. http://vtrans.vermont.gov/sites/aot/files/planning/documents/planning/Vermont_Freight_Plan_Update_June2017_Final%20%281%29.pdf

9. This expected growth would likely result in a substantial increase in GHG emissions from heavy-duty trucks, without stringent GHG emissions and fuel economy standards. The national truck and trailer GHG standards are of particular importance because so much of the freight truck traffic on Vermont roads is coming from outside of the state. Vermont is a small state with limited resources, and, at this point in time, Vermont relies on these standards to ensure GHG emissions reductions in the state from freight truck traffic.

10. Vermont has set aggressive GHG emissions reduction goals to achieve a 40% reduction in GHG emissions from 1990 levels by 2030, and an 80 to 95% reduction in emissions by 2050,⁷ and has established the Vermont Climate Action Commission to develop effective actions to meet these goals by curtailing the emissions that contribute to global climate change.⁸

11. Progress towards achieving these goals has been slow, and the relative GHG emissions contribution from the transportation sector has grown from 1990 through 2013.⁹ Any delay or weakening of EPA's truck and trailer GHG emissions

⁷ Vermont Department of Public Service. Vermont Comprehensive Energy Plan. 2016.

http://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/State_Plans/Comp_Energy_Plan/2015/2016CEP_ES_Final.pdf

⁸ State of Vermont Executive Department. Executive Order No. 12-17.

<http://governor.vermont.gov/sites/scott/files/documents/EO%2012-17%20-%20Climate%20Action%20Commission.pdf>

⁹ Vermont Department of Environmental Conservation – Air Quality and Climate Division. Vermont Greenhouse Gas Emissions Inventory Update 1990-2013. July

standards represents a major step in the wrong direction in terms of mitigating the effects of this increasingly important source of GHG emissions.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 10th day of October, 2017.



Jeffrey R. Merrell

2017. [http://dec.vermont.gov/sites/dec/files/aqc/climate-change/documents/ Vermont Greenhouse Gas Emissions Inventory Update 1990-2013.pdf](http://dec.vermont.gov/sites/dec/files/aqc/climate-change/documents/Vermont%20Greenhouse%20Gas%20Emissions%20Inventory%20Update%201990-2013.pdf)

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**DECLARATION OF STEPHAN LEMIEUX IN SUPPORT OF
STATE INTERVENORS' OPPOSITION TO PETITIONER
TRUCK TRAILER MANUFACTURERS ASSOCIATION'S
MOTION FOR STAY**

I, Stephan Lemieux, declare:

1. I am employed by the State of California Air Resources Board (CARB) in the capacity of Manager, On-Road Heavy-Duty Diesel Section. I have been employed in this capacity for approximately 16 years, and have been employed by CARB since 1995.

2. My job duties include assisting in the promulgation and implementation of California regulations that establish emission standards and other emission

related requirements applicable to on-road mobile sources, including heavy-duty motor vehicles. In accordance with this duty, I participated in, and supervised staff that worked on a 2008 rulemaking action in which CARB adopted the first regulation in the nation that established greenhouse gas (GHG) emission standards applicable to new and in-use 53-foot or longer box-type trailers and new and in-use tractors that haul those trailers on California highways (hereinafter “California Tractor-Trailer GHG regulation” or “California regulation”).¹ During the course of that rulemaking action, CARB staff prepared a document that describes the specific purpose why CARB proposed to adopt the initial California regulation, CARB’s rationale in determining the proposed regulation was reasonably necessary to carry out that purpose, the anticipated benefits and economic impacts upon jobs and businesses in California, the technical and empirical studies and reports that CARB relied upon in proposing to adopt the initial California regulation, and the facts and evidence supporting CARB’s initial determination that the initial regulation would not have a significant adverse impact on business.² That document is entitled “Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of the Regulation to

¹ The California Tractor-Trailer GHG regulation is set forth at California Code of Regulations, title 17, sections 95300 through 95312.

² California Government Code § 11346.2(b).

Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles” and includes several appendices (hereinafter, 2008 Staff Report).³

3. CARB subsequently amended the California Tractor-Trailer GHG regulation in 2010, 2012, and 2013, and I also participated, and supervised staff that worked on each of those rulemaking actions. Attached to this declaration as Exhibit A is a true and accurate copy of the California Tractor-Trailer GHG regulation, as last amended in 2013. California Code of Regulations, title 17, sections 95300 through 95312.

4. The initially adopted and subsequently amended versions of the California Tractor-Trailer GHG regulation establish requirements for new and in-use 53-foot and longer box-type trailers that are very similar to the requirements applicable to 53-foot and longer trailers jointly promulgated by U.S. EPA (EPA) and the National Highway and Traffic Safety Administration (NHTSA) at issue in this proceeding. CARB believes that its experience in adopting and implementing the California regulation provides it with a unique perspective regarding issues that

³ *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of the Regulation to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles (October 2008)*, available at: <https://www.arb.ca.gov/regact/2008/ghghdv08/ghgisor.pdf>. Appendices A through G to the 2008 Staff Report are available at: <https://www.arb.ca.gov/regact/2008/ghghdv08/ghghdv08.htm>

are relevant to the projected economic impacts of the federal trailer requirements upon trailer manufacturers, the capability of trailer manufacturers to comply with such requirements, and the emissions benefits that would be forfeited if EPA's requirements were stayed.

5. I am familiar with the "Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles –Phase 2" (federal Phase 2 GHG regulation) that was jointly promulgated by the U.S. Environmental Protection Agency (EPA) and the National Highway Safety Administration (NHTSA), and finalized on October 25, 2016. Along with staff I supervised, I collaborated with EPA and NHTSA staff over an approximate two-year period, to develop technical analyses underlying the federal Phase 2 GHG regulation, and especially the analyses underlying the greenhouse gas emission standards applicable to trailers at issue in this matter.

6. As elaborated in greater detail below, CARB's experience in promulgating and implementing the California regulation demonstrates that the technologies needed to comply with the federal trailer requirements have been commercially available since 2008, and that the availability of such technologies has significantly expanded since 2008, which has resulted in much lower trailer compliance costs than those projected by CARB in 2008. CARB's experience further demonstrates that the federal Phase 2 GHG regulation provides trailer manufacturers more than sufficient time to comply with the model year 2018 and

2019 standards, in light of the widespread commercial availability of compliant technology, and that the compliance costs for trailers could likely be fully recovered in approximately two years as a result of reduced fuel costs. These considerations suggest that the costs associated with requiring trailer manufacturers to comply with the cost effective federal Phase 2 GHG regulation will be minimal.

This declaration further explains that a stay of the federal trailer requirements would harm California by reducing the incentive for manufacturers to continue developing compliant technologies for trailers, and by exposing Californians to the greenhouse gas emissions attributable to a much larger and broader category of trailers than the trailers currently subject to California's regulation. California needs to reduce such greenhouse gas emissions to protect the public health and welfare of its citizens from the harms posed by climate change.

Overview of California's Tractor-Trailer GHG Regulation

7. The California Tractor-Trailer GHG regulation regulates GHG pollutants emitted from new and in-use heavy-duty Class 7 and 8 on-road tractors⁴ and new and in-use 53-foot or longer box-type trailers⁵ that are hauled by such tractors on

⁴ Class 7 tractors have a gross vehicle weight rating of 26,001 to 33,000 pounds, and Class 8 tractors have a gross vehicle weight rating over 33,000 pounds.

⁵ Box-type trailers are dry-van trailers (enclosed rectangular, non-climate controlled trailers) and refrigerated-van trailers (rectangular trailer vans that have refrigeration or heating units built into the trailers to maintain precise temperatures

California highways, by requiring such tractors and trailers to be equipped with specified aerodynamic technologies and low-rolling resistance (LRR) tires that collectively reduce the aerodynamic drag and rolling resistance forces acting on such tractors and trailers.

8. The California regulation incorporates elements of EPA's SmartWay Program that establish criteria applicable to new on-road tractors equipped with sleeper cabs, the aerodynamic technologies applicable to box-type trailers, and the LRR tires used on both tractors and trailers. The SmartWay Program is a voluntary program that is designed to improve the environmental performance associated with the ground freight delivery system in the United States. One component of the SmartWay Program, the SmartWay Technology Program, develops test protocols and establishes performance criteria to verify the GHG emissions reduction benefits of on-road heavy-duty tractors and technologies and equipment associated with on-road heavy-duty tractors and trailers.

9. The primary elements of the California regulation applicable to 2011 through 2013 model year tractors and new trailers are briefly described below.

2011 through 2013 Model Year Tractor Requirements

and are used to haul frozen food, fresh produce, hot or warm food, and other perishable items).

10. 2011 through 2013 model year sleeper cab tractors that haul 53-foot or longer box-type trailers on California highways must be SmartWay certified⁶ beginning January 1, 2010,⁷ and 2011 through 2013 model year day cab equipped tractors that haul 53-foot or longer box-type trailers on California highways must be equipped with low-rolling resistance (LRR) tires meeting SmartWay specifications beginning January 1, 2010.⁸

New 2011 and Subsequent Model Year Trailer Requirements

11. New 2011 and subsequent model year 53-foot or longer dry-van or refrigerated van trailers that travel on California highways must either be SmartWay certified or retrofitted with SmartWay certified aerodynamic technologies, and equipped with LRR tires meeting SmartWay specifications beginning January 1, 2010.⁹ Trailer manufacturers were provided approximately

⁶ Subsequent to CARB's 2008 Tractor-Trailer GHG regulation rulemaking, EPA changed its nomenclature when describing SmartWay certified tractors and trailers and now refers to these tractors and trailers as U.S. EPA SmartWay designated tractors and trailers. In this document the terms "SmartWay certified" and "SmartWay verified" are synonymous with the term "SmartWay designated."

⁷ California Code of Regulations (Cal. Code Regs) title 17, § 95303(a)(1)(A). Unless otherwise noted, all future citations to the California Code of Regulations are to Cal. Code Regs., tit. 17. A sleeper-cab tractor may be modified from a SmartWay Certified configuration if a modification is needed for the tractor to perform its designed job function, subject to specified criteria. § 95303(a)(1)(B). The SmartWay specifications for sleeper-berth equipped tractors require such tractors to be equipped with LRR tires meeting SmartWay specifications.

⁸ § 95303(a)(2).

⁹ § 95303(b)(1), (2).

one year to retrofit affected trailers with SmartWay certified aerodynamic technologies and LRR tires meeting SmartWay specifications.¹⁰

Prior SmartWay Trailer Certification Criteria

12. Prior to 2015, EPA had only established SmartWay certification criteria for dry-van trailers¹¹ that consisted of both design and performance-based requirements. The design requirements required dry-van trailers to be fitted with specified configurations of aerodynamic equipment and LRR tires meeting SmartWay specifications.¹²

¹⁰ As described below in ¶¶ 15, 21 and 22 of this declaration, CARB staff determined that both SmartWay certified aerodynamic technologies and LRR tires meeting SmartWay specifications were commercially available in 2008.

¹¹ Dry-van trailer” is an “enclosed rectangular trailer that is not a refrigerated-van trailer.” § 95302(a)(17).

¹² *U.S. EPA Certified SmartWay Mark, License Agreement, Technical Specifications & Requirements, and Graphics Standards & Usage Guide for Tractor and Trailer Manufacturers*, EPA 420-B11-013 (2011), p. 10. Available at:

<https://nepis.epa.gov/Exe/ZyNET.exe/P100AGEB.txt?ZyActionD=ZyDocument&Client=EPA&Index=1976%20Thru%201980%7C1986%20Thru%201990%7C2006%20Thru%202010%7CHardcopy%20Publications%7C1991%20Thru%201994%7C2000%20Thru%202005%7CPrior%20to%201976%7C2011%20Thru%202015%7C1981%20Thru%201985%7C1995%20Thru%201999&Docs=&Query=420B11013%20&Time=&EndTime=&SearchMethod=2&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5CZYFILES%5CINDEX%20DATA%5C11THRU15%5CTXT%5C00000002%5CP100AGEB.txt&User=ANONYMOUS&Password=anonymous&SortMethod=-%7Ch&MaximumDocuments=15&FuzzyDegree=0&ImageQuality=r85g16/r85g16/x150y150g16/i500&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&>

13. The performance-based requirements required participating manufacturers of aerodynamic technology equipment (trailer side-skirt fairings, trailer front-mounted gap reducer fairings, and trailer rear-fairings) to demonstrate that their candidate technologies achieved specified improvements in fuel economy, relative to a baseline 53-foot dry van trailer,¹³ as tested in accordance with specified test procedures.¹⁴ The criteria required SmartWay certified trailers to demonstrate at least a 6.5% improvement in fuel economy relative to a baseline 53-foot dry van trailer.¹⁵

SmartWay Trailer Certification Criteria for 2015 and Newer Dry-Van and Refrigerated Van Trailers

14. In 2015, EPA revised its SmartWay certification criteria. The revised criteria substitute performance thresholds for the prior design requirements,

[Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x](#)

¹³ Trailer side-skirt fairings were required to demonstrate at least a 4% improvement in fuel economy; trailer front-mounted gap reducer fairings were required to demonstrate at least a 1% improvement in fuel economy; and trailer rear-fairings were required to demonstrate at least a 1% improvement in fuel economy. Advanced trailer end fairings were required to demonstrate at least a 5% improvement in fuel economy, and advanced trailer side skirts were required to demonstrate at least a 7% improvement in fuel economy. Low-rolling resistance tires were required to demonstrate a 1-1.5% improvement in fuel economy benefit relative to mid-range rolling resistance tires. EPA 420-B-11-013, pp. 8-13.

¹⁴ The test procedure was based on *SAE J1321*.

¹⁵ EPA 420-B-11-013, p. 7.

thereby allowing trailer manufacturers to utilize any qualifying aerodynamic technologies, allow manufacturers to use additional aerodynamic test procedures, and establish criteria for refrigerated van trailers.¹⁶ The revised criteria require both dry-van and refrigerated van trailers to be equipped with SmartWay certified tires and any combination of SmartWay certified aerodynamic technologies that collectively achieve at least a 6% improvement in fuel economy. Trailers equipped with SmartWay certified tires and aerodynamic technologies that achieve at least a 10% improvement in fuel economy are eligible to be designated SmartWay Elite Trailers.¹⁷ Aerodynamic devices that were certified prior to 2015 retain their SmartWay verified status, but manufacturers of those devices may elect to retest the devices under the revised protocols.¹⁸

Technological Feasibility and Associated Costs of Trailer Requirements

15. When CARB promulgated the initial California Tractor-Trailer GHG regulation in 2008, CARB staff determined that the technologies needed for trailer manufacturers to comply with the trailer requirements were commercially available, and estimated that the average incremental cost of complying with the

¹⁶ “Overview of 2015 Updates to the EPA-designated SmartWay Trailer”, EPA-420-F15-009, available at: <https://www.epa.gov/sites/production/files/2016-03/documents/420f15009.pdf>

¹⁷ *Ibid.*

¹⁸ USEPA SmartWay Trailer and Aerodynamic Device Program Policy (v.1, Feb. 2015), p. 11., available at: <https://www.epa.gov/sites/production/files/2016-03/documents/420b15021.pdf>

new dry-van trailer requirements was approximately \$2900 (in 2008 dollars).¹⁹

This cost estimate was based on CARB staff assumptions that a SmartWay certified trailer would incorporate trailer side skirts, front fairings, eight low-rolling resistance tires meeting SmartWay specifications, and require labor costs of \$200 (four hours at \$50 per hour).²⁰

16. CARB staff estimated that the component costs for a single set of trailer side skirts would range from \$1,000 to \$2,600,²¹ that the costs for trailer front-mounted gap reducer fairings would range would from \$800-\$1000, and that incremental costs for SmartWay verified tires would range from \$0 to \$50 more than the cost for conventional heavy-duty tires. Staff further estimated that a SmartWay certified trailer would incur \$120 in annual maintenance costs and \$5 in annual reporting costs associated with record keeping requirements and administrative requirements.²²

17. CARB staff estimated that the combined incremental component, installation and annual maintenance and reporting costs could be recovered within

¹⁹ 2008 Staff Report, pp. 29, 41-42, and 59-60. This cost includes estimated labor costs of \$200.

²⁰ 2008 Staff Report, pp. 41-42.

²¹ 2008 Staff Report, p. 34.

²² 2008 Staff Report, p. 61.

18 months through reduced fuel consumption costs.²³ Even if these costs were not offset by the fuel savings costs, they would, when amortized over the estimated 11-year time span of trailers, only be \$30 per month.²⁴

18. CARB staff estimated that a compliant tractor-trailer would achieve between a 7 to 10 percent savings in fuel costs, which would equate to approximately \$4,000 to \$5,700 in savings attributable to reduced fuel costs per year, and that on a statewide basis the California regulation would result in an overall cost savings of approximately \$4.3 billion (2008 dollars). The California regulation is therefore clearly cost effective, as it was projected to result in substantial overall savings to the regulated industry, while reducing carbon dioxide equivalent emissions by approximately 1 million metric tons of carbon dioxide equivalent (CO₂e) in California by 2020.²⁵

²³ 2008 Staff Report, p. 42. Staff estimated that \$35,000 in savings would be achieved over the typical trailer life of 11 years. Accounting for capital costs, maintenance costs, and fuel savings, the trailer requirements were estimated to have a net cost savings of \$13,000 per trailer (in 2008 dollars), assuming a retail price of \$3.14 per gallon of ultra-low sulfur diesel fuel in 2010 and \$3.69 per gallon of ultra-low sulfur diesel fuel in 2020. ((2008 Staff Report, Sections IX.B.4, p. 42, and XII, p. 58). CARB staff further estimated that a fully compliant dry-van trailer would increase the fuel economy of the tractor pulling it by 6.5%. 2008 Staff Report, p. 63.

²⁴ Assuming a 6% interest rate.

²⁵ 2008 Staff Report at 1. Carbon dioxide equivalent (CO₂e) is a metric measure used to compare the emissions from various GHGs based upon their global warming potential. Global warming potential (GWP) is the index used to translate the level of emissions of various gases into a common measure in order to compare the relative radiative forcing of different gases without directly calculating the

Federal Phase 2 GHG Regulation

19. As described above, CARB promulgated the California Tractor-Trailer GHG regulation based in part on staff's determination that the technologies needed for trailer manufacturers to comply with the trailer requirements were commercially available, that the associated compliance costs were approximately \$2900 (in 2008 dollars) to produce a compliant dry-van trailer, and that the combined incremental component, installation and annual maintenance and reporting costs could be recovered within 18 months through reduced fuel consumption costs.

20. CARB staff's determinations of the availability and associated costs of technologies needed to comply with California's trailer requirements are highly relevant in assessing EPA and NHTSA's determinations of technological availability and costs needed to comply with the trailer requirements in federal Phase 2 GHG regulation, particularly with respect to 2018 model year trailers, because the comparable *federal carbon dioxide emission standards for long box vans are essentially equivalent to the performance standards represented in*

changes in atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emissions of one kilogram of a GHG to that from emission of one kilogram of CO₂ over a period of time (usually 100 years). For example, the GWP of CO₂, methane, and nitrous oxide is 1, 21, and 310, respectively. CO₂ equivalents are commonly expressed as "million metric tons of carbon dioxide equivalents (MMT CO₂e)".

current SmartWay certification standards and in California's current regulation²⁶ and those standards "can be met by adopting off-the-shelf aerodynamic and tire technologies available today."²⁷

Advancements in Technology Since 2008

21. Since 2008, both the scope and breadth of aerodynamic technologies and LRR tires for trailers has significantly expanded, which has correspondingly help to reduce component costs. For example, CARB noted in 2008 that three trailer side skirts had obtained SmartWay approved status.²⁸ In comparison, EPA's "SmartWay Verified List of Aerodynamic Devices",²⁹ currently indicates that 62 trailer side skirts are SmartWay verified (as distinct components), and 10 trailer side skirts have been verified in conjunction with other aerodynamic technologies. Similarly, while CARB noted that one rear trailer fairing was SmartWay approved in 2008,³⁰ currently 18 rear trailer fairings (categorized as "tails" by Smartway) are SmartWay verified as distinct components, and 9 rear trailer fairings have been SmartWay verified in conjunction with other aerodynamic technologies. Also, as

²⁶ 81 Fed. Reg. 73748, 73649 (Oct. 25, 2016).

²⁷ Ibid.

²⁸ 2008 Staff Report at pp. 33-34.

²⁹ *EPA SmartWay Verified List of Aerodynamic Devices*, available at: <https://www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices>

³⁰ 2008 Staff Report, p. 37.

previously noted, in 2008 EPA had only developed SmartWay certification criteria for dry-van trailers, but subsequently developed certification criteria for refrigerated van trailers in 2015.

22. In 2008, CARB noted that four tire manufacturers (Bridgestone, Continental, Goodyear, and Michelin) were producing SmartWay approved tires in 22.5 inch and 24.5 inch heavy-duty vehicle rim sizes and in tread designs optimized for steer, drive, and trailer axle positions.³¹ EPA's SmartWay Verified List for Low Rolling Resistance (LRR) New and Retread Tire Technologies³² currently lists 234 SmartWay Verified new and retread tires for trailers.

23. The demonstrated progress in expanding the scope of compliant aerodynamic technologies for trailers has also resulted in more effective control technologies. Ten aerodynamic technology packages for trailers have demonstrated the ability to achieve at least a 9% increase in fuel savings, and have accordingly been awarded a SmartWay Elite status.³³ SmartWay Elite trailers are equipped with SmartWay Elite aerodynamic technologies and SmartWay verified

³¹ 2008 Staff Report at p. 46.

³² *EPA SmartWay Verified List for Low Rolling Resistance (LRR) New and Retread Tire Technologies* available at: <https://www.epa.gov/verified-diesel-tech/smartway-verified-list-low-rolling-resistance-lrr-new-and-retread-tire>

³³ <https://www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices>. A trailer must demonstrate a fuel savings of 6% or greater to be SmartWay verified; and must demonstrate a fuel savings of 10% or more to be verified as a SmartWay Elite trailer.

LRR tires, and have demonstrated the ability to achieve a 10 percent or greater fuel savings compared to a standard tractor-trailer combination³⁴ or approximately a 54% increase in the level of stringency of California's dry-van trailer requirements.

24. The information provided in ¶¶ 15, 21, and 22 of my declaration indicates that most of the technology needed to comply with the federal trailer requirements applicable to 2018 model year long box van trailers has existed since 2008,³⁵ and that advances in technology have occurred that have resulted in both an increasing number of control technologies and greater effectiveness in reducing aerodynamic friction. I therefore concur with EPA's and NHTSA's assessments that commercially available aerodynamic and tire technologies needed to meet the requirements applicable to 2018 model year long box vans are widely available.

25. I further concur with EPA and NHTSA's statements that the federal trailer requirements applicable to other categories of trailers in 2018 do not require

³⁴ "Overview of 2015 Updates to the EPA-designated SmartWay Trailer", EPA-420-F15-009, <https://www.epa.gov/sites/production/files/2016-03/documents/420f15009.pdf>

³⁵ Note that the California's trailer requirements do not require new 53-foot or longer box-type trailers to be equipped with tire pressure monitoring systems (TPMS) or automatic tire inflation systems (ATIS). EPA and NHTSA project that all box vans will be equipped with TPMS or ATIS in 2018 (81 Fed. Reg. 73478, 73659) and the federal Phase 2 GHG regulation requires non-box trailers must be equipped with TPMS or ATIS. 40 CFR 1037.107(4)(i). Both TPMS and ATIS are currently available technologies, as evidenced by the existence of current TPMS that are paired with telematic technologies to transmit tire pressure to a central contact. 81 Fed. Reg. 73748, 73653 (Oct. 25, 2016).

the application of aerodynamic technologies. Non-box trailers and non-aero box vans must be equipped with either TPMS or ATIS,³⁶ and LRR tires. Non-aero box trailers may be equipped with SmartWay-verified³⁷ LRR tires through the 2020 model year,³⁸ and non-box trailers may even be equipped with LRR tires that do not meet SmartWay specifications through the 2020 model year.³⁹

26. EPA's and NHTSA's projected costs of compliance for trailers are significantly less than the comparable compliance costs that CARB developed during its 2008 rulemaking action. The reductions in compliance costs are likely the result of competitive market forces arising from the substantially greater number of SmartWay-verified trailer aerodynamic technologies and LRR tires for trailers that have been developed since 2008. EPA and NHTSA estimated that the incremental compliance costs for trailers in the 2018 model year would range from

³⁶ 40 CFR 1037.107(4)(i).

³⁷ SmartWay-verified trailer tires must demonstrate a coefficient of rolling resistance (C_{RR}) of 5.1 kg/metric ton or less, and are widely available. 81 Fed. Reg. 73748, 73641 (Oct. 25, 2016). EPA and NHTSA cite a 2014 survey of TTMA members that indicated 85 percent of box vans sold at that time were equipped with SmartWay tires. 81 Fed. Reg. at 73652.

³⁸ 40 CFR 1037.107(4)(iii).

³⁹ 40 CFR 1037.107(4)(ii); Such tires are commercially available, as evidenced by EPA's and NHTSA's statement that "most box van tires currently achieve a tire CRR of 6.0 kg/ton or better." 81 Fed. Reg. 73748, 73652 (Oct. 25, 2016).

\$339 to \$1441,⁴⁰ which is approximately only 12 to 50 percent of the \$2900 incremental compliance cost for trailers that CARB estimated in 2008.

Even EPA's and NHTSA's highest estimated incremental cost for 2027 and subsequent model year long dry vans, \$1370, is only 47% of CARB's estimated compliance cost for trailers.

27. EPA and NHTSA's assessment that most customers will recover the compliance costs associated with trailers in two years⁴¹ is consistent with CARB's assessment in its 2008 rulemaking action that the combined incremental component, installation and annual maintenance and reporting costs associated with new dry-van trailers could be recovered within 18 months through reduced fuel consumption costs.

28. EPA's regulation provides most manufacturers approximately 14 months to comply with federal Phase 2 GHG regulation's trailer requirements, which is comparable to the approximate 12 month period that trailer manufacturers had to comply with the initial California regulation. EPA's regulation further provides small trailer manufacturers an additional one year compliance period, so these manufacturers have approximately 26 months to comply with the Phase 2

⁴⁰ See 81 Fed. Reg. 73478, 73662 (Oct. 25, 2016) TABLE IV-20—TRAILER TECHNOLOGY INCREMENTAL COSTS IN THE 2018 MODEL YEAR (\$2013)

⁴¹ Id. at. 73662.

GHG regulation's trailer requirements.⁴² In light of the fact that EPA's compliance periods exceed the compliance period provided in California's initial Tractor-Trailer GHG regulation, that the availability of SmartWay verified aerodynamic technologies and LRR tires has significantly increased since 2008, and that trailer manufacturers have been gaining experience with the technologies needed to comply with the federal trailer requirements, I concur with EPA's determination that manufacturers have had sufficient time to comply with the federal trailer requirements by the 2018 model year and have sufficient time to comply with the 2019 model year standards as well.

29. EPA and NHTSA estimate that the annual cost per metric ton of (CO₂e) reduced for tractor-trailers, if fuel savings are not accounted for, is \$36 in 2030.⁴³ Even if the compliance costs associated with the federal trailer requirements are not offset by the fuel savings, the federal compliance costs are significantly less than the compliance costs of the California regulation that CARB determined were cost effective in 2008. Consequently, I concur with EPA and NHTSA's determination that even if fuel savings are not accounted for, the federal trailer standards are cost effective.

Federal Phase 2 GHG Regulation Compliance Provisions for Trailers

⁴² 40 CFR 1037.150(c); 81 Fed. Reg. 73648, 73677 (Oct. 25, 2016).

⁴³ 81 Fed. Reg. 73478, 73663 (Oct. 25, 2016).

30. EPA and NHTSA have established several provisions that provide compliance flexibility for certain categories of trailers. Only three categories of non-box trailers are subject to the trailer requirements,⁴⁴ and these categories of trailers must only be equipped with LRR tires and tire pressure monitoring systems. Other trailers are exempted based on design characteristics, including trailers intended to haul very heavy loads,⁴⁵ trailers with an axle spread of at least 120 inches between adjacent axle centerlines,⁴⁶ and trailers intended for temporary or permanent residence, office space, or other work spaces.⁴⁷

31. Moreover, EPA has established several optional provisions within the federal Phase 2 GHG regulation that will help mitigate the compliance burdens of trailer manufacturers. First, manufacturers may elect to exempt 20 percent or 350, whichever is less, of their box-van trailers, and 20 percent or 250, whichever is less, of their non-box trailers from otherwise applicable standards and certification requirements through the model year 2026.⁴⁸

32. Second, EPA and NHTSA have structured the trailer requirements to provide trailer manufacturers the option of using test data generated from tire

⁴⁴ Tank trailers, flatbed trailers, and container chassis. 81 Fed. Reg. 73748, 73643 (Oct. 25, 2016).

⁴⁵ 40 CFR 1037.5(h)(1)

⁴⁶ 40 CFR 1037.5(h)(3)

⁴⁷ 40 CFR 1037.5(h)(2)

⁴⁸ 40 CFR § 1037.150(v); See 81 Fed. Reg. 73748, 73674, 675 (Oct. 25, 2016).

manufacturers⁴⁹ or from aerodynamic device manufacturers⁵⁰ to demonstrate compliance with the trailer requirements, in lieu of generating the required test data themselves.

33. EPA and NHTSA have also adopted an interim compliance provision that allows manufacturers that have obtained SmartWay verification for their aerodynamic devices prior to January 1, 2018, to submit their SmartWay test data to EPA for preapproval of compliance data for their devices, and that allows trailer manufacturers to certify based on approved data through the 2020 model year.⁵¹

Harms Likely to Result From a Stay

34. CARB, the state of California, and most other states now recognize the threat that anthropogenically induced climate change poses to public health and public welfare in California, our nation, and indeed the entire world.

35. California's Office of Environmental Health and Hazards Assessment has determined that climate change is having increasingly negative effects on California's environment, public health, and economy.⁵² These effects include:

⁴⁹ 40 CFR § 1037.515(b)

⁵⁰ 40 CFR § 1037.515(c)

⁵¹ 40 CFR 1037.150(u)

⁵² See California Office of Environmental Health and Hazards Assessment, *Indicators of Climate Change in California* (2013), available at:

- A marked increase in extremely hot weather, resulting in increased deaths associated with heat waves. Hotter weather, including increases in extremely hot days, also contributes to ground-level ozone (or “smog”) formation, which is linked to asthma, heart attacks, and pulmonary problems, especially in children and the elderly. Smog also reduces visibility, damages crops, and harms wildlife.
- An increase in the severity and size of wildfires, with resulting lives lost, property damage, air quality harm resulting from the smoke (including from fine particles in the ash), and water quality risks from denuded slopes. Scientists project increased wildfire risk from climate change in the future.⁵³
- Rising sea levels. The ocean has already risen between 6 to 8 inches along the California coast, and much larger increases have been predicted globally over the next century.⁵⁴ Sea level rise threatens low-lying cities and

<https://oehha.ca.gov/media/downloads/risk-assessment/document/climatechangeindicatorsreport2013.pdf>

⁵³ Union of Concerned Scientists, Science

Connections: Western Wildfires and Climate Change, available at:

http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/Infographic-Western-Wildfires-and-Climate-Change-Methodology-and-Assumptions.pdf

⁵⁴ See *Intergovernmental Panel on Climate Change*, “FAQ 5.1: Is Sea Level Rising?”, available at: https://www.ipcc.ch/publications_and_data/ar4/wg1/en/faq-5-1.html

infrastructure throughout the state, including the Sacramento/San Joaquin Delta, which is the core of the state's water infrastructure.

- Ocean warming and acidification. In addition to warming of the ocean due to climate change, CO₂ absorbed by the ocean is increasing the acidity of ocean water.⁵⁵ This may likely have substantial adverse ecological and economic effects for California.

36. These are just a sampling of the negative effects California is experiencing from climate change. In many regards, climate change caused by greenhouse gases threatens the public health and welfare of all Californians. Addressing this issue requires immediate, sustained, and significant reductions to greenhouse gas emissions, including greenhouse gases emitted from on-road heavy-duty vehicles.

37. I have reviewed the discussion of climate change and its impacts in Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2 Final rule, Section VII.D in which EPA describes a number of scientific studies that discussing the risks that climate

⁵⁵ See, e.g., Nicolas Gruber *et al.*, *Rapid Progression of Ocean Acidification in the California Current System*, Science Express (2012), available at: <https://www.oceanfdn.org/sites/default/files/Rapid%20Progression%20of%20Ocean%20Acidification%20in%20the%20California%20Current%20System.pdf>, and Center for Ocean Solutions (2012) *Why Ocean Acidification Matters to California, and What California Can Do About It: A Report on the Power of California's State Government to Address Ocean Acidification in State Waters* available at: <https://www.oceanfdn.org/sites/default/files/Why%20Ocean%20Acidification%20Matters%20to%20California.pdf>

change poses “to the public health and welfare of current and future generations.”⁵⁶ EPA's description of such studies is consistent with California's experience and conclusions.

38. I concur with EPA's statements that “[s]ince GHGs are well-mixed in the atmosphere and have long atmospheric lifetimes, changes in GHG emissions will affect atmospheric concentrations of greenhouse gases and future climate for decades to millennia, depending on the gas.”⁵⁷

39. The National Academies of Science,⁵⁸ the U.S. Global Change Research Program,⁵⁹ and the Intergovernmental Panel on Climate Change⁶⁰ are among the many scientific bodies that have concluded that there is a limited amount of time left to reduce greenhouse gas emissions to safe levels. This is, in part, because carbon dioxide, the principal greenhouse gas, persists in the atmosphere for

⁵⁶ 81 Fed. Reg. 73478, 73833-834 (Oct. 25, 2016).

⁵⁷ 81 Fed. Reg. at 73834.

⁵⁸ See generally National Academies of Science, *American's Climate Choices* (2011), available at: <http://dels.nas.edu/Report/America-Climate-Choices-2011/12781>

⁵⁹ See generally U.S. Global Change Research Program, *National Climate Assessment* (2014), available at: <http://nca2014.globalchange.gov/report>

⁶⁰ See generally Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report, Summary for Policymakers* (2014), available at: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf

centuries. As a result, every year of additional greenhouse gas emissions results in persistent climate disruption for years to come. Conversely, the earlier we begin to reduce emissions, the more limited future damage from climate change is likely to be.

40. In light of the very serious risks posed by climate change, and the closing window of opportunity to address them, California has long been focused on reducing greenhouse gas emissions. California's Global Warming Solutions Act of 2006, (Assembly Bill 32, Chap. 488, Stats. 2006 (Nunez)) AB 32, is one of several statutes directing CARB and other state agencies to take action. It recognizes this "serious threat" and directs California, and CARB, to support "other states, the federal government, and other countries" as they act to address emissions. *See* Cal. Health & Saf. Code §38501. California's Legislature, in enacting AB 32, found and declared that global warming presents a serious threat to the public health, natural resources, economic well-being and environment of California, including "the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an

increase in the incidences of infectious diseases, asthma, and other health-related problems.”⁶¹

41. Moreover, in 2016 California’s Legislature adopted, and California’s Governor Brown signed Senate Bill 32 (Chap. 249, Stats. 2016 (Pavely), which requires CARB to ensure that California’s statewide emissions of greenhouse gas emissions are reduced to at least 40 percent below the level of statewide greenhouse gas emissions in 1990, no later than December 31, 2030.

42. Section 1(c) of Senate Bill 32 expresses the California Legislature’s findings and declarations that California continues to face threats posed by global warming, ten years after the enactment of the California Global Warming Solutions Act of 2006.

43. Pursuant to the authority of AB 32, CARB has adopted and is implementing the California Tractor-Trailer GHG regulation which established requirements applicable to both 2011 and newer, and 2010 and older 53-foot and longer box-vans that are hauled by Class 7 and Class 8 tractors on California highways. The initial California Tractor-Trailer GHG regulation became effective under state law on January 1, 2010, and since that time I am not aware of any trucking fleets operating within California’s borders that have experienced any disruptions in operations that were directly attributable to California’s regulation.

⁶¹ California Health and Safety Code section 38501(a).

Instead, since 2008 companies have produced and obtained SmartWay verification for an increasing number of trailers and trailer technologies. Nine trailer manufacturers, including Utility Trailer, Hyundai Translead, Great Dane, and Wabash National, currently offer new SmartWay verified trailers, and the four aforementioned trailer manufacturers have also obtained SmartWay verification for aerodynamic devices for trailers.⁶²

44. California's Tractor-Trailer GHG regulation is currently helping to reduce greenhouse gas emissions emitted from tractor-trailers travelling on California highways, but California will certainly benefit from the trailer requirements in the federal Phase 2 regulation, because the federal requirements apply to a much larger and broader category of trailers than the trailers currently subject to California's regulation, namely 53-foot and longer box-van trailers hauled by Class 7 and 8 tractors that travel outside of California, box-van trailers 50 feet or less in length, and three specified categories of non-box trailers (tank trailers, flatbed trailers, and container chassis trailers).

45. The federal trailer requirements will also likely continue to spur the tremendous innovation and continued advancement of aerodynamic technologies and LRR tires for trailers that CARB observed after the initial California regulation

⁶² *SmartWay Designated Tractors and Trailers*, <https://www.epa.gov/verified-diesel-tech/smartway-designated-tractors-and-trailers>

was adopted. Certainly aerodynamic device and tire manufacturers would be more incentivized to research, design, and produce compliant technologies knowing that a large portion of all 2018 and newer trailers in the nation must be equipped with specified technologies and tires to meet the federal trailer requirements.

46. If the trailer requirements specified in the federal Phase 2 regulation are stayed, California and other states would experience serious harm because of the considerations outlined above. Aerodynamic device, tire manufacturers, and trailer manufacturers would likely reduce their efforts to develop more effective technologies for trailers, and the trailers that are currently required to comply with the trailer standards would contribute to an unquantifiable, yet potentially significant amount of greenhouse gas emissions that would contribute to the harms posed by climate change to California, the nation, and the world.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on Oct 11, 2017



Stephan Lemieux

Manager, On-Road Heavy-Duty Section

California Air Resources Board

EXHIBIT A

Entities subject to this subarticle must maintain copies of the information reported pursuant to the applicable sections of the Mandatory Reporting Regulation. Records must be kept at a location within the State of California for five years.

NOTE: Authority cited: Sections 38510, 38597, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38510, 38597, 39600 and 39601, Health and Safety Code.

HISTORY

1. New section filed 6-17-2010; operative 7-17-2010 (Register 2010, No. 25).
2. Amendment filed 10-3-2012; operative 10-3-2012 pursuant to Government Code section 11343.4 (Register 2012, No. 40).
3. Editorial correction of subsection (f)(4) (Register 2015, No. 1).
4. Amendment filed 12-31-2014; operative 1-1-2015 pursuant to Government Code section 11343.4(b)(3) (Register 2015, No. 1).

§ 95205. Payment and Collection.

(a) Beginning in fiscal year 2010/2011, and thereafter, within 30 days after the State Budget has been signed by the Governor, the Executive Officer shall provide a written fee determination notice to each affected entity of the amount due. The amount of the fee shall be based on the reports submitted pursuant to section 95204 and the fee calculation formulas set forth in section 95203. ARB will not collect the fee from entities whose total amount due, as calculated per section 95203, is less than or equal to fifty dollars (\$50.00).

(b) *Payment Period.* Each entity that is notified by the Executive Officer that it must remit a specified dollar amount to ARB for the current fiscal year shall transmit that dollar amount to ARB for deposit into the Air Pollution Control Fund within 60 days of the fee determination notice date.

(c) *Late Fees.* The Executive Officer shall assess an additional fee on entities failing to pay the fee within 60 days of receipt of the fee determination notice. The Executive Officer shall set the late fee in an amount sufficient to pay ARB's additional expenses incurred by the entity's untimely payment. The late fee is in addition to any penalty that may be assessed as provided in section 95206.

(d) *Expenditure of Fees.* The fees collected from the entities are to be expended by ARB only for the purposes of recovering the costs of carrying out the provisions of AB 32 and repaying the Debt.

NOTE: Authority cited: Sections 38510, 38597, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505 and 39600, Health and Safety Code.

HISTORY

1. New section filed 6-17-2010; operative 7-17-2010 (Register 2010, No. 25).
2. Amendment of subsection (b) and NOTE filed 10-3-2012; operative 10-3-2012 pursuant to Government Code section 11343.4 (Register 2012, No. 40).

§ 95206. Enforcement.

(a) *Penalties.* Penalties may be assessed for any violation of this subarticle pursuant to Health and Safety Code section 38580. Each day during any portion of which a violation occurs is a separate offense.

(b) *Injunctions.* Any violation of this subarticle may be enjoined pursuant to Health and Safety Code section 41513.

(c) *Violations.* Each day or portion thereof that any report required by this subarticle remains unsubmitted, is submitted late, or contains incomplete or inaccurate information, shall constitute a single, separate violation of this subarticle. For the purposes of this section, "report" means any information required to be submitted by section 95204.

(d) *Payment Violations.* The failure to pay the full amount of any fee required by this subarticle shall constitute a single, separate violation of this subarticle for each day or portion thereof that the fee has not been paid after the date the fee is due.

(e) *Auditing.* The Executive Officer may contract with outside entities, including, but not limited to, the Board of Equalization, to obtain data or services needed to audit the returns provided by fee payers. The Executive Officer may use fee revenues collected under this subarticle to fund auditing and collection procedures.

(f) *Authorization to Enforce.* Enforcement of this subarticle may be carried out by authorized representatives of ARB, including authorized representatives of air pollution control or air quality management districts.

NOTE: Authority cited: Sections 38510, 38597, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505, 39300 and 41513, Health and Safety Code.

HISTORY

1. New section filed 6-17-2010; operative 7-17-2010 (Register 2010, No. 25).

§ 95207. Severability.

(a) Each part of this subarticle is deemed severable, and, in the event that any part of this subarticle is held to be invalid, the remainder of this subarticle shall continue in full force and effect.

(b) If any fee payer or group of fee payers subject to this subarticle is determined to be ineligible, by a court of law or statute, to pay the fees pursuant to this subarticle, the remaining entities shall be assessed the entire fee based on the formula contained in section 95203, without including the emissions associated with the ineligible fee payer or group of fee payers in the calculation. If a refund is ordered by any court or other authority the remaining fee payers shall be responsible to pay the subsequent deficit.

NOTE: Authority cited: Sections 38510, 38597, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505 and 39300, Health and Safety Code.

HISTORY

1. New section filed 6-17-2010; operative 7-17-2010 (Register 2010, No. 25).

Article 4. Regulations to Achieve Greenhouse Gas Emission Reductions

Subarticle 1. Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Regulation

§ 95300. Purpose.

The purpose of this subarticle is to reduce greenhouse gas emissions from heavy-duty (HD) tractors and 53-foot or longer box-type semi-trailers (trailers) that transport freight on a highway within California by establishing emission standards and other requirements applicable to both new 2011 and subsequent model year HD tractors and trailers and to 2010 and earlier model year HD tractors and trailers. The use of compliant aerodynamic technologies and low-rolling resistance tires will ensure reductions of greenhouse gas emissions from affected HD tractors and trailers by reducing the aerodynamic drag and tire rolling resistance forces acting on such HD tractors and trailers.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New subarticle 1 (sections 95300-95311) and section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Amendment of subarticle heading filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).
3. Amendment filed 12-5-2014; operative 12-5-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 49).
4. Editorial correction of HISTORY 3 (Register 2014, No. 50).

§ 95301. Applicability.

(a) This subarticle applies to owners and drivers of the following equipment when driven on a highway within California, as well as motor carriers, California-based brokers, and California-based shippers that use, or cause to be used, the following equipment on a highway within California:

- (1) HD tractors that pull 53-foot or longer box-type trailers; and
- (2) 53-foot or longer box-type trailers that are pulled by HD tractors.

(b) The requirements in this subarticle do not apply to the following trailer types and the tractors that pull them:

- (1) drop-frame trailers;
- (2) chassis trailers;
- (3) curtain-side trailers;
- (4) livestock trailers;
- (5) refuse trailers;
- (6) box-type trailers less than 53 feet in length;
- (7) emergency vehicles; and
- (8) military tactical support vehicles.

(c) In accordance with the provisions of section 95305, *Exemptions*, specified requirements of this subarticle do not apply to:

- (1) local-haul trailers and the tractors pulling local-haul trailers,
- (2) local-haul tractors and the trailers pulled by local-haul tractors, and
- (3) short-haul tractors and the trailers pulled by short-haul tractors,
- (4) drayage tractors and the trailers pulled by drayage tractors,
- (5) storage trailers and the tractors pulling storage trailers, and
- (6) empty 53-foot and longer box-type trailers pulled by HD tractors.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

- 1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
- 2. Amendment of subsections (c)(3)-(4), new subsection (c)(5) and repealer of subsection (d) filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).
- 3. Amendment of subsection (b) filed 12-5-2014; operative 12-5-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 49).
- 4. Editorial correction of HISTORY 3 (Register 2014, No. 50).

§ 95302. Definitions.

(a) The following definitions apply to this subarticle:

(1) "*Aerodynamic technologies*" means components designed to reduce wind resistance on the tractor or trailer resulting in improved overall tractor fuel economy and reduced carbon dioxide emissions. There are two types of aerodynamic technologies: fairings and flow control devices.

(2) "*Box-type trailer*" means a dry-van trailer or refrigerated-van trailer that is not a drop-frame trailer.

(3) "*Broker*" means a person who, for compensation, arranges or offers to arrange the transportation of property by a motor carrier. A motor carrier, or person who is an employee or bona fide agent of a carrier, is not a broker within the meaning of this section when it arranges or offers to arrange the transportation of shipments which it is authorized to transport and which it has accepted and legally bound itself to transport.

(4) "*Cab side extender*" means an air flow control device placed vertically on the rear side of the tractor that reduces the space between the tractor and trailer.

(5) "*California-based broker*" means a broker that maintains a business location in California.

(6) "*California-based shipper*" means a shipper that operates a facility in California where freight is located prior to its transportation.

(7) "*Chassis trailer*" means a trailer composed of a simple chassis for the mounting of a containerized load.

(8) "*Compliance year*" means the calendar year in which a fleet owner may bring trailers into compliance to meet the minimum fleet conformance threshold that takes effect on January 1 of the following year.

(9) "*Compliant trailer*" means a trailer that complies with the equipment requirements set forth in section 95303(b). For the purposes of the optional trailer fleet compliance schedules, to bring a trailer into compliance means to either retrofit the trailer with the necessary aerodynamic technology or technologies to comply with the equipment requirements set forth in section 95303(b), or remove the trailer from the owner's fleet.

(10) "*Conformance*" means meeting or exceeding the minimum fleet conformance thresholds defined in section 95307, *Optional Trailer Fleet Compliance Schedules*, Tables 1, 2 and 3. A conformance threshold defines the percentage of trailers in a fleet that are required to be compliant

in accordance with a large fleet compliance schedule or a small fleet compliance schedule.

(11) "*Curtain-side trailer*" means a trailer with tarp sides that can be loaded from the sides, top, or rear.

(12) "*Delayed compliance trailer*" means a trailer for which compliance may be delayed pursuant to section 95307(b)(4).

(13) "*Dispatch*" means to coordinate delivery, pickup, and drop-off schedules of vehicles; and monitor the delivery of freight from these vehicles.

(14) "*Drayage tractor*" means any in-use on-road tractor with a gross vehicle weight rating of greater than 26,000 pounds operating on or transgressing through port or intermodal railyard property for the purpose of loading, unloading or transporting freight.

(15) "*Driver*" means a person who physically operates a HD tractor.

(16) "*Drop-frame trailer*" means an enclosed rectangular trailer with a deck that is lower to the ground in the area between the trailer hitch and the trailer wheels, to create more cargo space.

(17) "*Dry-van trailer*" means an enclosed rectangular trailer that is not a refrigerated-van trailer.

(18) "*Early compliance trailer*" means a trailer that has been brought into compliance with the equipment requirements set forth in section 95303(b)(3) as applicable, before January 1, 2010, and for which the owner receives credit, in accordance with the *early compliance option* set forth in section 95307(b)(4), that may be used to delay the compliance of delayed compliance trailers.

(19) "*Emergency vehicle*" means a vehicle as defined in California Vehicle Code section 165.

(20) "*Empty trailer*" means a trailer that does not contain freight. A trailer that contains only items used for the handling or securing of freight, such as moving blankets, straps, moving dollies, and tool kits that are used in the transport of other items in the trailer, or to maintain the tractor or trailer on the road, is considered an empty trailer.

(21) "*Fairing*" means a structure with smoothly contoured solid surfaces that reduces the wind resistance of the objects it covers.

(22) "*Fleet*" means one or more trailers owned by a person, business, or government agency. A fleet consists of the total number of 53-foot or longer box-type trailers under common ownership or control even if they are part of different subsidiaries, divisions, or other organizational structures of a company or agency.

(23) "*Flow control device*" means a design element that manipulates the air flow around an object by changing the air flow characteristics in order to reduce the pressure force exerted on the vehicle.

(24) "*Freight*" means any item being transported for delivery in a 53-foot or longer box-type trailer. Items that remain in the trailer after all freight is delivered are not considered freight. These include items that are used exclusively to secure items being transported in the trailer, protect items being transported in the trailer, load items being transported in the trailer, or repair the tractor or trailer. Items that are not considered freight could include moving blankets, straps, tool kits, and moving dollies.

(25) "*Fuel tank fairing*," also known as a chassis skirt, means a fairing located at the base of the cab between the front wheel of the tractor and the forward-most rear wheel, covering the open space and streamlining the fuel tank.

(26) "*Good operating condition*" means the condition of a HD tractor or box-type trailer that meets the applicable standards in section 95304, *Good Operating Condition Requirements*, for continued aerodynamic efficiency.

(27) "*Gross vehicle weight rating*" or "*GVWR*" means the "*GVWR*" as defined in California Vehicle Code section 350.

(28) "*Heavy-duty tractor*" or "*HD tractor*" means a class 7 or class 8 motor vehicle designed to pull a semitrailer on a highway by means of a fifth wheel mounted over the rear axle(s).

(29) "*Highway*" means a "highway" as defined in California Vehicle Code section 360.

(30) "Integrated sleeper cab roof fairing" means a fairing located on the roof of a sleeper-cab-equipped tractor that extends from the front windshield of the tractor cab to the rear edge of the sleeper cab, with enclosed sides that line up with the sides of the sleeper cab.

(31) "Intermodal railyard" means any rail facility where trailers are transferred from drayage tractor to train or vice versa.

(32) "Livestock trailer" means a semitrailer designed to transport live animals.

(33) "Local-haul base" means the location where a local-haul tractor or local-haul trailer is garaged or from which it is routinely dispatched.

(34) "Local-haul tractor" means a HD tractor that travels exclusively within a 100-mile radius of its local-haul base.

(35) "Local-haul trailer" means a 53-foot or longer box-type trailer that travels exclusively within a 100-mile radius of its local-haul base.

(36) "Low-rolling-resistance tire" means a tire that is designed to improve fuel efficiency of a tractor pulling a trailer by minimizing its rolling resistance, which consists of the energy lost as heat within the rubber itself, as well as aerodynamic drag of the tire, and friction between the tire and the road and between the tire and the rim when the tire is rolling under load; rolling resistance is expressed as the energy consumed per unit distance as the tire rolls under load.

(37) "Military tactical support vehicle" means a "Military Tactical Support Vehicle" as defined in title 13, California Code of Regulations (CCR), section 1905.

(38) "Motor carrier" means a "Motor carrier" as defined in California Vehicle Code section 408.

(39) "Non-compliant Tractor Pass" means a temporary permit issued by the Executive Officer in accordance with the requirements of section 95305(h) that allows a HD tractor to pull a 53-foot or longer box-type trailer on a highway within California without meeting the requirements of sections 95303(a) and 95305(b) for a defined time period not to exceed five consecutive days.

(40) "Ocean-going vessel" means a commercial, government, or military vessel meeting any one of the following criteria:

(A) A vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 Code of Federal Regulations (CFR) section 679.2, as adopted June 19, 1996;

(B) A vessel greater than or equal to 10,000 gross tons (GT ITC) pursuant to the convention measurement (international system) as defined in 46 CFR sections 69.51-.61, as adopted September 12, 1989; or

(C) A vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.

(41) "Open-shoulder tire" means a tire that is constructed such that the two outer tread ribs, located where the tread and sidewalls meet, are separated into individual tread blocks and is designed to improve traction when traveling on mud or snow covered highways.

(42) "Owner" of a tractor or trailer means the person or persons registered as the owner of the tractor or trailer by the California Department of Motor Vehicles or its equivalent in another state, province, or country (presumed at the time of any citation to be the person or persons identified

as the owner on the registration document or title carried on the vehicle), except in the following circumstances:

(A) for a tractor or trailer owned by the federal government and not registered in any state or local jurisdiction, the owner means the branch, agency or other organization within the federal government that operates the tractor or trailer, that is required to maintain accountability for the vehicle, or that is shown by the accountable entity to be responsible for the tractor's or trailer's maintenance.

(B) for a leased tractor, the person or persons registered as the owner of the tractor or trailer by the California Department of Motor Vehicles or its equivalent in another state, province, or country (usually the lessor) is the owner for purposes of this subarticle, except that the lessee of the tractor is the owner for purposes of this subarticle if the lessor demonstrates that either the lessor provided the lessee with the following statement on a document separate from the lease agreement, or the lease agreement includes the following statement:

"The lessee of this heavy-duty tractor understands that when using a heavy-duty tractor to pull a 53-foot or longer box-type trailer on a highway within California, the heavy-duty tractor must be compliant with sections 95300-95312, title 17, California Code of Regulations, and that it is the responsibility of the lessee to ensure this heavy-duty tractor is compliant. The regulations may require this heavy-duty tractor to have low-rolling-resistance tires that are U.S. Environmental Protection Agency (U.S. EPA) SmartWay Verified Technologies prior to current or future use in California, or may entirely prohibit use of this tractor in California if it is a model year 2011 or later tractor and is not a U.S. EPA SmartWay Certified Tractor."

(C) for a leased trailer that is leased prior to January 1, 2013, the person or persons registered as the owner of the tractor or trailer by the California Department of Motor Vehicles or its equivalent in another state, province, or country (usually the lessor) is the owner for purposes of this subarticle, except that the lessee of the trailer is the owner for purposes of this subarticle if both of the following requirements are met:

1. The lessor demonstrates that the lessor provided the lessee with actual written notice that clearly informed the lessee about the requirements of this subarticle and about the lessee's obligation under terms of the lease to ensure the trailer complies with those requirements prior to use of the trailer in California. This requirement may be satisfied if either the lessee is provided with the following statement on a document separate from the lease agreement, or the following statement is included in the lease agreement:

"The lessee of this box-type trailer understands that when using a heavy-duty tractor to pull a 53-foot or longer box-type trailer on a highway within California, the box-type trailer must be compliant with sections 95300-95312, title 17, California Code of Regulations, and that it is the responsibility of the lessee to ensure this box-type trailer is compliant. The regulations may require this trailer to have low-rolling-resistance tires and aerodynamic technologies that are U.S. Environmental Protection Agency SmartWay Verified Technologies prior to current or future use in California."

[The next page is 418.52(o).]

2. The lessor demonstrates and informs the lessee that either:
- a. the lease agreement does not prohibit the lessee from modifying the trailer to be compliant with the requirements of this subarticle; or
 - b. the lessor provides a reasonable method to exchange the trailer for one that is compliant with this subarticle.

(D) for a leased trailer that is leased on or after January 1, 2013, the person or persons registered as the owner of the tractor or trailer by the California Department of Motor Vehicles or its equivalent in another state, province, or country (usually the lessor) is the owner for purposes of this subarticle, except that the lessee of the trailer is the owner for purposes of this subarticle if either the lessor demonstrates that the lessor provided the lessee with the following statement on a document separate from the lease agreement prior to entering the lease agreement, or the lease agreement includes the following statement:

“The lessee of this box-type trailer understands that when using a heavy-duty tractor to pull a 53-foot or longer box-type trailer on a highway within California, the box-type trailer must be compliant with sections 95300–95312, title 17, California Code of Regulations,; and that it is the responsibility of the lessee to ensure this box-type trailer is compliant. The regulations may require this trailer to have low-rolling-resistance tires and aerodynamic technologies that are U.S. Environmental Protection Agency SmartWay Verified Technologies prior to current or future use in California.”

(E) For purposes of this subarticle, the terms “lease agreement,” “leased,” “lessor,” and “lessee” mean the same as “rental agreement,” “rented,” “owner of the rented vehicle,” and “renter,” respectively.

(43) “Person” means an individual, corporation, business trust, estate, trust, partnership, limited liability company, association, joint venture, government, governmental subdivision, agency, instrumentality, public corporation, or any other legal or commercial entity.

(43.1) “Phase 1 Certified Tractor” means a tractor that has been certified in accordance with either the Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, as adopted by the USEPA (76 Fed. Reg. 57106 (September 15, 2011)); or the Greenhouse Gas Emission Requirements for New 2014 and Subsequent Model Heavy-Duty Vehicles, as adopted by the California Air Resources Board, sections 95660 to 95664, Subarticle 12, title 17, California Code of Regulations.

(44) “Port” means the port property where marine and port terminals are typically located for the loading and unloading of water-borne commerce onto and from ocean-going vessels. Ports covered by this regulation include, but are not limited to, the Port of Long Beach, Port of Los Angeles, Port of Humboldt Bay, Port of San Diego, Port of Hueneme, Port of Oakland, Port of San Francisco, Port of Sacramento, Port of Stockton, Port of Redwood City, Port of Crockett, Port of Richmond, Port of Pittsburg, and the Port of Benicia.

(45) “Rear trailer fairing” means a fairing that attaches to the perimeter outer edges of the trailer’s rear-facing surface to provide a continuous surface for the air passing over the side and top surfaces of the trailer.

(46) “Refrigerated-van trailer” means a rectangular trailer van that has a refrigeration or heating unit built into the front of the trailer to maintain precise temperatures and is designed to haul freight that requires climate control, such as frozen food, fresh produce, hot or warm food, and other perishable items.

(47) “Refuse trailer” means a trailer that is used to haul solid waste material. Solid waste includes garbage, construction debris, commercial refuse, and other discarded materials.

(48) “Register” means to provide the Executive Officer with the information identified in sections 95306 (b) through (f) and sections 95307(b)(3) and 95307(c)(2), as required, by means of TRUCRS.

(49) “Relocation Pass” means a temporary permit issued by the Executive Officer in accordance with the requirements of section 95305(f) that allows a local-haul trailer to relocate to either a new local-haul base or to an out-of-state location while hauling freight, or a storage trailer to relocate to a new storage trailer location or to an out-of-state

location while hauling freight, without meeting all of the applicable requirements of section 95303(b).

(50) “Semitrailer” means a “Semitrailer” as defined in section 550 of the California Vehicle Code.

(51) “Shipper” means a person that has possession of freight prior to its transportation. This may include, but is not limited to, owners of freight distribution centers, and temporary freight storage facilities.

(52) “Short-haul tractor” means a HD tractor that travels less than 50,000 miles per year, including all miles accrued both inside and outside of California.

(53) “Sleeper-cab tractor” means a HD tractor originally manufactured with a tractor body that has a compartment, typically containing a bed, located behind the driving compartment.

(54) “Storage trailer” means a trailer that is used for the storage of items at a fixed location.

(55) “Storage trailer location” means the street address where a registered storage trailer is used to store items.

(56) “Tractor” means a “Truck Tractor” as defined in section 655 of the California Vehicle Code.

(57) “Trailer” means a semitrailer.

(58) “Transfer of Ownership Pass” means a temporary permit issued by the Executive Officer in accordance with the requirements of section 95305(g) that allows a HD tractor to pull a non-compliant 53-foot or longer box-type trailer on a highway within California without meeting all of the applicable requirements of section 95303(b) for the purpose of delivering that trailer from its current location to the transferee’s location.

(59) “Transport refrigeration unit” or “TRU” means a refrigeration system powered by an integral internal combustion engine designed to control the environment of temperature sensitive products that are transported in refrigerated-van trailers. TRUs may be capable of both cooling and heating.

(60) “TRUCRS (Truck Regulation Upload, Compliance, and Reporting System)” is the on-line reporting tool for this subarticle.

(61) “U.S. EPA SmartWay Certified Tractor” means a tractor that has been certified or designated by the United States Environmental Protection Agency (U.S. EPA) to meet the technical specifications and requirements of the U.S. EPA SmartWay Transport Partnership Program.

(62) “U.S. EPA SmartWay Certified Trailer” means a 53-foot or longer box-type trailer that has been certified or designated by the U.S. EPA to meet the technical specifications and requirements of the U.S. EPA SmartWay Transport Partnership Program.

(63) “U.S. EPA SmartWay Transport Partnership Program” means the U.S. EPA’s voluntary program that is a collaboration between the U.S. EPA and the transportation industry to improve energy efficiency, reduce greenhouse gas and air pollutant emissions, and improve energy security. This program establishes incentives for improving freight movement efficiency and the fuel efficiency of freight moving equipment.

(64) “U.S. EPA SmartWay Verified Technology” or “U.S. EPA SmartWay Verified Technologies” means one or more aerodynamic technologies or low-rolling-resistance tire models that have been identified by the U.S. EPA as meeting the technical specifications and requirements of the U.S. EPA SmartWay Transport Partnership Program.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Amendment filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).
3. New subsections (a)(19.1)–(a)(19.3) and (a)(43.1) and amendment of subsection (a)(53) filed 12-5-2014; operative 12-5-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 49).
4. Editorial correction of HISTORY 3 (Register 2014, No. 50).

5. Repealer of subsections (a)(19.1)-(19.3) filed 7-25-2016; operative 7-25-2016 pursuant to Government Code section 11343.4(b)(3) (Register 2016, No. 31).

§ 95303. Requirements and Compliance Deadlines.

(a) Tractor Requirements.

(1) Except as provided in section 95305, Exemptions, beginning January 1, 2010, no 2011 through 2013 model year sleeper-cab tractor pulling a 53-foot or longer box-type trailer shall operate on a highway within California unless such tractor is either:

- (A) a U.S. EPA SmartWay Certified Tractor, or
- (B) a U.S. EPA SmartWay Certified Tractor that has been modified provided:

- 1. the modification is necessary for the tractor to perform its designed job function,
- 2. there is no reasonable alternative to the modification that would involve or require a lesser degree of modifications to the tractor, and
- 3. the Executive Officer has previously approved the modification.

a. An applicant requesting an exemption pursuant to section 95303(a)(1)(B) must submit information to the Executive Officer that describes the proposed modification(s), the need therefor, and the absence or lack of reasonable alternatives to the modification. Such information includes, without limitation, engineering drawings, blueprints, schematics, scientific or technical articles, contract specifications, etc.

b. The Executive Officer will approve or disapprove a request for an exemption pursuant to section 95303(a)(1)(B) upon information submitted by an applicant as specified in section 95303(a)(1)(B)3.a. and good engineering judgment.

(2) Except as provided in section 95305, Exemptions, beginning January 1, 2010, no 2011 through 2013 model year HD tractor, including but not limited to sleeper-cab tractors, pulling a 53-foot or longer box-type trailer shall operate on a highway within California unless such tractor's tires are U.S. EPA SmartWay Verified Technologies.

(3) Except as provided in section 95305, Exemptions, beginning January

1, 2013, no 2010 or previous model year HD tractor, pulling a 53-foot or longer box-type trailer shall operate on a highway within California unless such tractor's tires are U.S. EPA SmartWay Verified Technologies.

(b) Trailer Requirements.

(1) 2011 and Subsequent Model Year Dry-Van Trailer Requirements.

Except as provided in section 95305, Exemptions, beginning January 1, 2010, no 2011 or subsequent model-year 53-foot or longer dry-van trailer shall travel on a highway within California unless such trailer is either:

- (A) a U.S. EPA SmartWay Certified Trailer, or
- (B) equipped with both:

- 1. tires that are U.S. EPA SmartWay Verified Technologies; and
- 2. a dry-van trailer aerodynamic technology or combination of technologies that is either

a. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that has been demonstrated to the U.S. EPA to meet or exceed a 5 percent fuel savings in accordance with the requirements defined by the U.S. EPA SmartWay Partnership Program, or

b. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that met the criteria defined in section 95303(b)(1)(B)2.a., but has been modified in any inanner from the U.S. EPA SmartWay Verified Technology configurations. Only modifications that are required to enable a particular SmartWay technology to be installed on a trailer are allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified SmartWay verified configuration, and the modifications may only be used if prior written approval is obtained from the Executive Officer. The Executive Officer will base his or her approval on information submitted that describes the inodification, the need therefor, and any test data or other information that demonstrates the proposed modifications would not significantly increase the aerodynamic drag of the SmartWay verified configuration, and on good engineering judgment.

(2) *2011 and Subsequent Model Year Refrigerated-Van Trailer Requirements.*

Except as provided in section 95305, Exemptions, beginning January 1, 2010, no 2011 or subsequent model year 53-foot or longer refrigerated-van trailer shall travel on a highway within California unless such trailer is either:

- (A) a U.S. EPA SmartWay Certified Trailer, or
- (B) equipped with both:
 - 1. tires that are U.S. EPA SmartWay Verified Technologies; and
 - 2. a dry-van trailer or refrigerated-van trailer aerodynamic technology or combination of technologies that is either
 - a. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that has been demonstrated to the U.S. EPA to meet or exceed a 4 percent fuel savings in accordance with the requirements defined by the U.S. EPA SmartWay Partnership Program, or
 - b. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that met the criteria defined in section 95303(b)(2)(B)2.a., but has been modified in any manner from the U.S. EPA SmartWay Verified Technology configurations. Only modifications that are required to enable a particular SmartWay technology to be installed on a trailer are allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified SmartWay verified configuration, and the modifications may only be used if prior written approval is obtained from the Executive Officer. The Executive Officer will base his or her approval on information submitted that describes the modification, the need therefor, and any test data or other information that demonstrates the proposed modifications would not significantly increase the aerodynamic drag of the SmartWay verified configuration, and on good engineering judgment.

(3) *2010 or Previous Model Year Dry-Van and Refrigerated-Van Trailer Requirements.*

Except as provided in section 95305, Exemptions, a 2010 or previous model year 53-foot or longer box-type trailer pulled by a HD tractor may not travel on a highway within California unless all of the following requirements are met by the compliance dates specified.

(A) By January 1, 2017, a 2010 or previous model year 53-foot or longer box-type trailer not identified in section 95303(b)(3)(F) must be equipped with tires that are U.S. EPA SmartWay Verified Technologies.

(B) By January 1, 2013, a 2010 or previous model year 53-foot or longer dry-van trailer that is not participating in an optional trailer fleet compliance schedule as defined in section 95307, *Optional Trailer Fleet Compliance Schedules*, must either be

- 1. a U.S. EPA SmartWay Certified Trailer, or
- 2. equipped with a dry-van trailer aerodynamic technology or combination of technologies that is either
 - a. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that has been demonstrated to the U.S. EPA to meet or exceed a 5 percent fuel savings in accordance with the requirements defined by the U.S. EPA SmartWay Partnership Program, or
 - b. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that met the criteria defined in section 95303(b)(3)(B)2.a., but has been modified in any manner from the U.S. EPA SmartWay Verified Technology configurations. Only modifications that are required to enable a particular SmartWay technology to be installed on a trailer are allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified SmartWay verified configuration, and the modifications may only be used if prior written approval is obtained from the Executive Officer. The Executive Officer will base his or her approval on information submitted that describes the modification, the need therefor, and any test data or other information that demonstrates the proposed modifications would not significantly increase the aerodynamic drag of the SmartWay verified configuration, and on good engineering judgment.

(C) By January 1, 2013, a 2010 or previous model year 53-foot or longer refrigerated-van trailer that is not participating in an optional trailer fleet compliance schedule as defined in section 95307, *Optional Trailer Fleet Compliance Schedules*, and not identified in section 95303(b)(3)(F), must either be

- 1. a U.S. EPA SmartWay Certified Trailer, or
- 2. equipped with a dry-van or refrigerated-van trailer aerodynamic technology or combination of technologies that is either
 - a. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that has been demonstrated to the U.S. EPA to meet or exceed a 4 percent fuel savings in accordance with the requirements defined by the U.S. EPA SmartWay Partnership Program, or
 - b. a U.S. EPA SmartWay Verified Technology or combination of U.S. EPA SmartWay Verified Technologies that met the criteria defined in section 95303(b)(3)(C)2.a., but has been modified in any manner from the U.S. EPA SmartWay Verified Technology configurations. Only modifications that are required to enable a particular SmartWay technology to be installed on a trailer are allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified SmartWay verified configuration, and the modifications may only be used if prior written approval is obtained from the Executive Officer. The Executive Officer will base his or her approval on information submitted that describes the modification, the need therefor, and any test data or other information that demonstrates the proposed modifications would not significantly increase the aerodynamic drag of the SmartWay verified configuration, and on good engineering judgment.

(D) For dry-van trailers participating in an optional trailer fleet compliance schedule as defined in section 95307, *Optional Trailer Fleet Compliance Schedules*, a 2010 or previous model year 53-foot or longer dry-van trailer must either meet the requirements defined in section 95303(b)(3)(B)1. or the requirements defined in section 95303(b)(3)(B)2. by the applicable compliance dates in section 95307, *Optional Trailer Fleet Compliance Schedules*.

(E) For refrigerated-van trailers participating in an optional trailer fleet compliance schedule as defined in section 95307, *Optional Trailer Fleet Compliance Schedules*, a 2010 or previous model year 53-foot or longer refrigerated-van trailer must either meet the requirements defined in section 95303(b)(3)(C)1. or the requirements defined in section 95303(b)(3)(C)2. by the applicable compliance dates in section 95307, *Optional Trailer Fleet Compliance Schedules*.

(F) A 2003 through 2009 model year 53-foot or longer refrigerated-van trailer equipped with 2003 or subsequent model year transport refrigeration unit engine must be equipped with tires that are U.S. EPA SmartWay Verified Technologies and either meet the requirements defined in section 95303(b)(3)(C)1. or the requirements defined in section 95303(b)(3)(C)2. by:

- 1. January 1, 2018 for a 2003 or 2004 model year trailer
- 2. January 1, 2019 for a 2005 or 2006 model year trailer
- 3. January 1, 2020 for a 2007, 2008, or 2009 model year trailer

(c) *Requirements for Drivers.*

(1) A driver may not operate a HD tractor to pull a 53-foot or longer box-type trailer on a highway within California unless both the tractor and the trailer:

- (A) comply with the applicable requirements and compliance deadlines set forth in sections 95303(a) and 95303(b); and
 - (B) are in good operating condition as defined in section 95304, *Good Operating Condition Requirements*.
- (2) A driver must, upon request, provide the following information to authorized enforcement personnel identified in section 95308:
- (A) driver's license;
 - (B) vehicle odometer reading, if the tractor is an exempt short-haul tractor;
 - (C) tractor registration;
 - (D) trailer registration;

(E) origin of freight;
 (F) destination of freight;
 (G) if dispatched by a motor carrier, the motor carrier information set forth in section 95303(g)(1)(B);

(H) if dispatched by a broker, the broker information set forth in section 95303(f)(1)(B);

(I) if operating a drayage tractor that is exempt pursuant to the requirements of section 95305(d), documentation indicating the port or intermodal railyard of origin or destination, as applicable; and

(J) if operating a HD tractor pulling a 53-foot or longer box-type trailer that is operating under either a Relocation Pass pursuant to section 95305(f), Transfer of Ownership Pass pursuant to section 95305(g), or Non-compliant Tractor Pass pursuant to section 95305(h), the pass approval number, as applicable.

(3) A driver of a HD tractor pulling a 53-foot or longer box-type trailer that is exempt pursuant to section 95305(f) must, upon request, allow authorized enforcement personnel to directly view the inside of the trailer.

(4) A driver shall not operate a HD tractor to pull a 53-foot or longer box-type trailer on a highway within California if the tractor or the trailer has aerodynamic technologies that are not deployed or not in their operational configuration.

(d) *Requirements for Owners of HD Tractors.*

(1) An owner of a HD tractor may not use or cause to be used a HD tractor to pull a 53-foot or longer box-type trailer on a highway within California unless both the HD tractor and the box-type trailer:

(A) comply with the applicable requirements and compliance deadlines set forth in sections 95303(a) and 95303(b); and

(B) are in good operating condition as defined in section 95304, *Good Operating Condition Requirements.*

(e) *Requirements for Owners of Box-Type Trailers.*

(1) An owner of a 53-foot or longer box-type trailer must ensure that the 53-foot or longer box-type trailer will not be pulled by a HD tractor on a highway within California unless the 53-foot or longer box-type trailer:

(A) complies with the requirements and compliance deadlines set forth in section 95303(b); and

(B) is in good operating condition as defined in section 95304, *Good Operating Condition Requirements.*

(2) An owner of one or more 2010 or previous model year 53-foot or longer box-type trailers that are subject to the requirements of section 95303(b)(3) may elect to follow an alternative compliance schedule, if applicable. Owners that choose to follow an alternative compliance schedule must meet the requirements of section 95307, *Optional Trailer Fleet Compliance Schedules.*

(f) *Requirements for California-based Brokers.*

(1) A California-based broker must:

(A) only dispatch a HD tractor or a 53-foot or longer box-type trailer for travel on a highway within California if the tractor or trailer complies with the applicable operating requirements and compliance deadlines set forth in sections 95303(a) and 95303(b);

(B) provide the following information to a dispatched driver who will be traveling on a highway within California:

1. broker's business name;
2. broker's street address, state, zip code;
3. broker contact person's name; and
4. broker contact person's business phone number.

(g) *Requirements for Motor Carriers.*

(1) A motor carrier must:

(A) only dispatch a HD tractor or a 53-foot or longer box-type trailer for travel on a highway within California if the tractor or trailer complies with the applicable operating requirements and compliance deadlines set forth in sections 95303(a) and 95303(b);

(B) provide the following information to a dispatched driver who will be traveling on a highway within California:

1. motor carrier's business name;

2. motor carrier's street address, state, zip code;
3. motor carrier contact person's name; and
4. motor carrier contact person's business phone number.

(h) *Requirements for California-based Shippers.*

(1) A California-based shipper must not ship freight from its California facility or facilities in a 53-foot or longer box-type trailer pulled by a HD tractor on a highway within California unless the HD tractor and the 53-foot or longer box-type trailer comply with the operating requirements and compliance deadlines set forth in sections 95303(a) and 95303(b).

(i) *Requirements for California-licensed Vehicle Dealers.*

(1) Any California-licensed vehicle dealer selling a HD tractor or 53-foot or longer box-type trailer subject to this regulation must provide the buyer with the following disclosure in writing:

"A heavy-duty tractor and 53-foot or longer box-type trailer operated in California may be subject to the Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Regulation set forth under sections 95300 -- 95312, title 17, California Code of Regulations. These vehicles may be required to use low-rolling-resistance tires and meet aerodynamic equipment requirements to reduce greenhouse gas emissions."

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Amendment filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).
3. Amendment of subsections (a)(1) and (a)(2) filed 12-5-2014; operative 12-5-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 49).
4. Editorial correction of HISTORY 3 (Register 2014, No. 50).

§ 95304. **Good Operating Condition Requirements.**

(a) *Good Operating Condition Criteria for U.S. EPA SmartWay Certified Tractor Aerodynamic Technologies.*

(1) An aerodynamic technology such as an aerodynamic mirror, a cab side extender, a fuel tank fairing, and an integrated sleeper cab roof fairing on a U.S. EPA Certified SmartWay Tractor must meet the following criteria:

(A) Each must be installed in accordance with manufacturer's specifications;

(B) Each must be securely fastened to the tractor; and

(C) Each must not be used if it is damaged to such an extent as to compromise its aerodynamic effectiveness.

(b) *Good Operating Condition Criteria for Trailer Aerodynamic Technologies.*

(1) An aerodynamic technology installed on a box-type trailer must meet the following criteria:

(A) The aerodynamic technology must either be installed:

1. in accordance with the aerodynamic technology manufacturer's specifications such that the technology continues to maintain its verified status in accordance with the requirements of the U.S. EPA SmartWay Transport Partnership Program, or

2. in a configuration approved by the Executive Officer.

(B) The aerodynamic technology must be securely fastened to the trailer;

(C) The aerodynamic technology must not be used with missing sections; and

(D) The aerodynamic technology must not be used if damaged to such an extent as to compromise its aerodynamic effectiveness.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Amendment filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).

§ 95305. Exemptions.*(a) Short-Haul Tractor Exemption Requirements.*

(1) A short-haul tractor pulling a 53-foot or longer box-type trailer on a California highway is exempt from the requirements of sections 95303(a)(1), 95303(a)(2), and 95303(a)(3), as applicable, if the short-haul tractor

(A) has been registered in accordance with the requirements of section 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*, and

(B) is driven less than 50,000 miles annually, including all miles accrued both inside and outside of California.

(2) A 53-foot or longer box-type trailer is exempt from the requirements of section 95303(b) while it is being pulled by an exempt short-haul tractor.

(3) The use of an exempt short-haul tractor in excess of 50,000 miles traveled during the one year period from the date the owner submitted the applicable information identified in sections 95306(b) through (f) is a violation of this subarticle.

(4) The driver of an exempt short-haul tractor must, upon request, provide the applicable information specified in section 95303(c)(2) to authorized enforcement personnel identified in section 95308, *Enforcement*.

(5) The driver of an exempt short-haul tractor must, upon request, allow authorized enforcement personnel identified in section 95308, *Enforcement*, to directly view the odometer of the exempt short-haul tractor.

(6) For an exempt short-haul tractor that is removed from an owner's exempt short-haul tractor fleet, taken out of service, or is otherwise no longer exempt, the owner must notify the Executive Officer and update the short-haul tractor information submitted in accordance with section 95306(d) to reflect this change in status prior to change in ownership of the tractor or prior to the tractor traveling on a highway within California, whichever occurs first, or within 30 days of the tractor being taken out of service. A tractor that is removed from the owner's short-haul tractor fleet or that for any other reason loses its exempt status is ineligible for the short-haul exemption under that owner for 36 months from the date its exempt status was terminated.

(7) A short-haul tractor exemption remains in effect for a period of one year from the date that the information required in sections 95306(b) through 95306(d) and section 95306(f) is submitted to the Executive Officer if the owner and the exempt tractor are in continuing compliance with the requirements of this section. To extend the exemption for an additional one year from the expiration date of the exemption, the owner must submit to the Executive Officer the tractor's odometer reading taken at the end of the one year period no more than 15 days after the expiration date of the exemption.

(8) The owner of more than one short-haul tractor may consolidate the dates to apply for an extension with approval of the Executive Officer.

(9) A 2014 or subsequent model year tractor that meets the requirements of sections 95305(a)(1)(A) and 95305(a)(1)(B) is an exempt short-haul tractor.

(b) Local-Haul Tractor Exemption Requirements.

(1) A local-haul tractor pulling a 53-foot or longer box-type trailer is exempt from the requirements of sections 95303(a)(1), but still must comply with the requirements of sections 95303(a)(2) and 95303(a)(3), as applicable, if

(A) the local-haul tractor has been registered in accordance with the requirements of section 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*, and

(B) the tractor-trailer combination is traveling within 100 miles of the local-haul tractor's local-haul base.

(2) A 2011 or subsequent model year 53-foot or longer box-type trailer is exempt from the requirements of sections 95303(b)(1)(A), 95303(b)(1)(B)2., 95303(b)(2)(A), and 95303(b)(2)(B)2., but still must comply with the requirements of sections 95303(b)(1)(B)1. or

95303(b)(2)(B)1. while it is being pulled by an exempt local-haul tractor.

(3) A 2010 or previous model year 53-foot or longer box-type trailer is exempt from the requirements of sections 95303(b)(3)(B) and 95303(b)(3)(C), but still must comply with the requirements of section 95303(b)(3)(A) while it is being pulled by an exempt local-haul tractor.

(4) The driver of an exempt local-haul tractor must, upon request, provide the applicable information listed in section 95305(c)(2) to authorized enforcement personnel identified in section 95308, *Enforcement*.

(5) A local-haul tractor exemption will remain in effect as long as the owner and the exempt tractor remain in compliance with the requirements of this section.

(6) The owner of an exempt local-haul tractor must notify the Executive Officer if the information submitted in accordance with sections 95306(b) through 95306(d) and section 95306(f) has changed, and must submit the updated information to the Executive Officer within 15 days of change.

(7) For a local-haul tractor that is removed from an owner's local-haul fleet, taken out of service, or is otherwise no longer exempt, the owner must notify the Executive Officer and update the local-haul tractor information submitted in accordance with section 95306(d) to reflect this change in status prior to change in ownership of the tractor, or prior to the tractor traveling on a highway within California, whichever occurs first, or within 30 days of the tractor being taken out of service.

(8) A 2014 or subsequent model year tractor that meets the requirements of sections 95305(b)(1)(A) and 95305(b)(1)(B) is an exempt local-haul tractor.

(c) Local-Haul Trailer Exemption Requirements.

(1) A 2011 or subsequent model year local-haul trailer is exempt from the requirements of sections 95303(b)(1)(A), 95303(b)(1)(B)2., 95303(b)(2)(A), and 95303(b)(2)(B)2., but still must comply with the requirements of sections 95303(b)(1)(B)1. or 95303(b)(2)(B)1. if the trailer has been registered in accordance with the requirements of section 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*, and the following conditions are met:

(A) the local-haul trailer is being pulled by a HD tractor on a California highway within 100 miles of the local-haul trailer's local-haul base, or

(B) the local-haul trailer is traveling under a valid Relocation Pass.

(2) A 2010 or previous model year local-haul trailer is exempt from the requirements of sections 95303(b)(3)(B) and 95303(b)(3)(C), but still must comply with the requirements of section 95303(b)(3)(A) if the trailer has been registered in accordance with the requirements of section 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*, and the following conditions are met:

(A) the local-haul trailer is being pulled by a HD tractor on a California highway within 100 miles of the local-haul trailer's local-haul base, or

(B) the local-haul trailer is traveling under a valid Relocation Pass.

(3) A local-haul trailer exemption will remain in effect as long as the owner and the exempt trailer are in compliance with the requirements of this section.

(4) The owner of an exempt local-haul trailer must notify the Executive Officer if the information submitted in accordance with sections 95306(b), 95306(c), and 95306(e) has changed, and must submit the updated information to the Executive Officer within 15 days of change.

(5) For an exempt local-haul trailer that is removed from an owner's local-haul fleet, taken out of service, or is otherwise no longer exempt, the owner must notify the Executive Officer and update the local-haul trailer information submitted in accordance with section 95306(e) to reflect this change in status prior to change in ownership of the trailer, or

prior to the trailer traveling on a highway within California, whichever occurs first, or within 30 days of the trailer being taken out of service.

(6) A 2011 or subsequent model year sleeper cab HD tractor is exempt from the requirements of section 95303(a)(1), but still must comply with the requirements of section 95303(a)(2), while it is pulling a local-haul trailer that is exempt under section 95305(c).

(d) *Drayage Tractor-Trailer Exemption Requirements.*

(1) A drayage tractor pulling a 53-foot or longer box-type trailer on a California highway within 100 miles of a port or intermodal railyard, and the trailer it pulls, are exempt from sections 95303(a) and 95303(b), as applicable, provided:

(A) the trailer was off-loaded from an ocean-going vessel or rail car at the port or intermodal railyard prior to being pulled by the drayage tractor, and the driver has documentation indicating the port or intermodal railyard of origin; or

(B) the drayage tractor is transporting the trailer to the port or intermodal railyard to be loaded onto an ocean-going vessel or rail car, and the driver has documentation indicating the port or intermodal railyard of destination.

(e) *Storage Trailer Exemption Requirements.*

(1) A storage trailer is exempt from the requirements of section 95303(b) if the storage trailer has been registered in accordance with the requirements of section 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*, and the storage trailer is traveling under a valid Relocation Pass.

(2) A storage trailer exemption will remain in effect as long as the owner and the exempt storage trailer are in compliance with the requirements of this section.

(3) The owner of an exempt storage trailer must notify the Executive Officer if the information submitted in accordance with sections 95306(b) and 95306(e) has changed, and must submit the updated information to the Executive Officer within 15 days of the change.

(4) For an exempt storage trailer that is removed from an owner's storage trailer fleet, taken out of service, or is otherwise no longer exempt, the owner must notify the Executive Officer and update the exempt storage trailer information submitted in accordance with section 95306(e) to reflect this change in status prior to change in ownership of the trailer, or prior to the trailer traveling on a highway within California, whichever occurs first, or within 30 days of the trailer being taken out of service.

(5) A HD tractor is exempt from the requirements of section 95303(a) while it is pulling a storage trailer that is exempt under section 95305(e).

(f) *Relocation Pass for Trailers.*

(1) An owner that obtains a Relocation Pass for a registered local-haul trailer or a registered storage trailer may operate that vehicle in accordance with the provisions of sections 95305(f)(1)(A) or 95305(f)(1)(B) for a specified period, as determined by the Executive Officer, not to exceed five consecutive days.

(A) A registered local-haul trailer traveling under a Relocation Pass may transport freight on a California highway further than 100 miles from its local-haul base while en route to a new local-haul base that is located further than 100 miles from its current local-haul base, or en route to an out-of-state location.

(B) A registered storage trailer traveling under a Relocation Pass may transport freight on a California highway while en route to a new storage trailer location, or en route to an out-of-state location.

(2) An owner that obtains a Relocation Pass for a 53-foot or longer box-type trailer that is not a registered local-haul trailer or registered storage trailer may operate that vehicle on a California highway exempt from the requirements of section 95303(b) for a specified period, as determined by the Executive Officer, not to exceed five consecutive days provided that the following requirements are met:

(A) after the trailer's Relocation Pass expires, the trailer may not be used to transport freight on a California highway until it is a registered local-haul trailer and operated in accordance with the provisions of section 95305(c), or

(B) after the trailer's Relocation Pass expires, the trailer will not be used to transport freight on a California highway until it is registered as a storage trailer and operated in accordance with the provisions of section 95305(e), or

(C) after the trailer's Relocation Pass expires, the trailer will not be used to transport freight on a California highway until it complies with the equipment requirements of 95303(b).

(3) An owner that relocates a registered local-haul trailer to a new local-haul base under a Relocation Pass must assign the trailer to the local-haul base of destination prior to beginning travel under the Relocation Pass.

(4) To obtain a Relocation Pass, a request to the Executive Officer must be made prior to the trailer's relocation. In the request, the owner must provide the Executive Officer with the following information:

(A) Owner contact information, as specified in section 95306(b).

(B) Trailer vehicle identification number (VIN).

(C) Street address of location of trailer where travel under the Relocation Pass will begin.

(D) Street address of location of trailer where travel under the Relocation Pass will end.

(E) Anticipated date trailer will begin relocation travel.

(5) Regardless of ownership, a trailer will be granted no more than four Relocation Passes per year that are issued in accordance with the requirements of section 95305(f).

(6) A trailer that has been issued a Relocation Pass in accordance with section 95305(f)(1) may not be issued another Relocation Pass until 30 days after the Pass was issued.

(7) A trailer that has been issued a Relocation Pass in accordance with section 95305(f)(2) may not be issued another Relocation Pass until 30 days after the trailer was registered as a local-haul trailer or storage trailer in accordance with sections 95305(c) or 95305(e), respectively.

(8) The Executive Officer will respond to a request for a Relocation Pass within 15 days of receiving the information identified in section 95305(f)(4) and notify the owner in writing of the decision.

(A) If approved, and upon confirmation of the date of travel by the owner, the Executive Officer will provide the owner with a Relocation Pass in electronic or written format that will contain the following information:

1. Effective dates of the Relocation Pass which shall not exceed five consecutive days beginning with the date the trailer will begin travel.

2. Relocation Pass Approval Number.

(g) *Transfer of Ownership Pass for Trailers.*

(1) Either party (the transferor or transferee) involved in the transfer of ownership of a 53-foot or longer box-type trailer may obtain a Transfer of Ownership Pass for that trailer up to 30 days prior to the transfer of ownership.

(2) A 53-foot or longer box-type trailer traveling under a Transfer of Ownership Pass for the purpose of delivering such trailer from the transferor to the transferee is temporarily exempt from the requirements of section 95303(b).

(3) To obtain a Transfer of Ownership Pass, a request to the Executive Officer must be made prior to the start of trailer delivery from the transferor to the transferee. The request must be made by whomever is the trailer's registered owner at the time of delivery, either the transferor or transferee. In the request, the transferor or transferee must provide the Executive Officer the following information for each trailer:

(A) Transferor's contact information:

1. Transferor's name, and if a corporate entity or governmental agency is selling the trailer, the responsible official and title (if applicable);

2. Name of transferor's company, corporation, or governmental agency (if applicable);

3. Corporate parent (if applicable);

4. Motor carrier identification number and type (if applicable);

5. Vehicle dealer license number and state where it was issued (if applicable);

6. Street address of transferor or transferor's company including city, state or province, zip code, colonia (Mexico only), and country;

7. Mailing address including city, state or province, zip code, colonia (Mexico only), and country;

8. Physical address of location where records pertaining to the applicable sale will be maintained including city, state or province, zip code, colonia (Mexico only), and country;

9. Transferor's contact person's name;

10. Telephone number of contact person;

11. Email address of contact person (if available);

12. Company taxpayer identification number (if applicable); and

13. TRUCRS identification number of corporate parent (if one has been obtained).

(B) Transferee's contact information:

1. Transferee's name, and if a corporate entity or governmental agency is buying the trailer, the responsible official and title (if applicable);

2. Name of transferee's company, corporation, or governmental agency (if applicable);

3. Corporate parent (if applicable);

4. Motor carrier identification number and type (if applicable);

5. Vehicle dealer license number and state where it was issued (if applicable);

6. Street address of transferee or transferee's company including city, state or province, zip code, colonia (Mexico only), and country;

7. Mailing address including city, state or province, zip code, colonia (Mexico only), and country;

8. Physical address of location where records pertaining to the applicable sale will be maintained including city, state or province, zip code, colonia (Mexico only), and country;

9. Transferee's contact person's name;

10. Telephone number of contact person;

11. Email address of contact person (if available);

12. Company taxpayer identification number (if applicable); and

13. TRUCRS identification number of corporate parent (if one has been obtained).

(C) Trailer identification number (VIN).

(D) Address of trailer location prior to start of delivery.

(E) Address of trailer location when delivery is complete.

(F) Date when trailer is scheduled to begin travel on a California highway under the Transfer of Ownership Pass.

(G) Date when trailer is scheduled to end travel on a California highway under the Transfer of Ownership Pass.

(H) If the total length of time from when the trailer is scheduled to begin travel on a California highway under the Transfer of Ownership Pass to when the trailer is scheduled to end travel on a California highway under the Transfer of Ownership Pass is greater than five consecutive days, the Executive Officer may request additional information from the transferee.

(4) For transfers of ownership where the transferor or transferee is not a licensed vehicle dealer, once a Transfer of Ownership Pass has been approved for a trailer, the transferor and transferee are not jointly eligible for another Transfer of Ownership Pass for that same trailer until one year from the last effective date of the approved Transfer of Ownership Pass.

(5) For transfers of ownership where the transferor or transferee is a licensed vehicle dealer, once a Transfer of Ownership Pass has been approved for a trailer, the transferor and transferee are jointly eligible for only one additional Transfer of Ownership Pass for that same trailer within the one year period that begins with the last effective date of the first approved Transfer of Ownership Pass.

(6) The Executive Officer will respond to a request for a Transfer of Ownership Pass within 15 days of receiving the information identified in section 95305(g)(3) and notify the transferor or transferee in writing of the decision.

(A) If approved, The Executive Officer will provide a Transfer of Ownership Pass in electronic or written format that will contain the following information:

1. Effective dates of the Transfer of Ownership Pass.

2. Transfer of Ownership Pass Approval Number.

(h) *Non-compliant Tractor Pass*

(1) Until January 1, 2015, a HD tractor traveling under a Non-compliant Tractor Pass while pulling a 53-foot or longer box-type trailer on a highway within California is temporarily exempt from the requirements of section 95303(a) for a specified period, as determined by the Executive Officer, not to exceed five consecutive days.

(2) A 53-foot or longer box-type trailer pulled by a HD tractor traveling under a Non-compliant Tractor Pass on a highway within California is temporarily exempt from the requirements of section 95303(b) for a specified period, as determined by the Executive Officer, not to exceed five consecutive days.

(3) To obtain a Non-compliant Tractor Pass, the tractor owner must make a request to the Executive Officer prior to affected travel. In the request, the owner must provide the following information for each tractor.

(A) Owner contact information, as specified in section 95306(b).

(B) Tractor identification number (VIN).

(C) Date tractor will begin travel, or enter California if traveling from out of state location, under the Non-compliant Tractor Pass.

(4) No owner will be granted more than one Non-compliant Tractor Pass per year

(5) Only one tractor per fleet operating under a common United States Department of Transportation (USDOT) number, motor carrier identification number, or International Registration Plan (IRP) fleet number will be granted a Non-compliant Tractor Pass per year.

(6) The Executive Officer will respond to a request for a Non-compliant Tractor Pass within 15 days of receiving the information identified in section 95305(h)(3) and notify the owner in writing of the decision.

(A) If approved, The Executive Officer will provide the owner with a Non-compliant Tractor Pass in electronic or written format that will contain the following information:

1. Effective dates of the Non-compliant Tractor Pass.

2. Non-compliant Tractor Pass Approval Number.

(i) *Trailer Aerodynamic Equipment Compliance Delay*

(1) An owner of a dry-van or refrigerated-van trailer that is subject to the requirements of section 95303(b) may apply for a Trailer Aerodynamic Equipment Compliance Delay if the trailer is configured such that existing aerodynamic technologies necessary to meet the requirements defined in sections 95303(b)(1)(B)2. or 95303(b)(3)(B)2. for dry-van trailers, or 95303(b)(2)(B)2. or 95303(b)(3)(C)2. for refrigerated-van trailers, cannot be installed.

(2) To apply for a Trailer Aerodynamic Equipment Compliance Delay, an owner must provide the Executive Officer the following information

(A) Owner contact information

1. Trailer owner's name, and if a corporate entity or governmental agency owns the trailer, the responsible official and title (if applicable);

2. Street address of owner or owner's company including city, state or province, zip code, colonia (Mexico only), and country;

3. Mailing address including city, state or province, zip code, colonia (Mexico only), and country;

4. Owner contact person's name;

5. Telephone number of contact person;

6. Email address of contact person (if available);

7. TRUCRS identification number (if applicable)

(B) Trailer Information (for each candidate trailer for compliance delay)

1. Trailer vehicle identification number (VIN).

2. Trailer participating in Optional Compliance Schedule? (Y or N)

3. Current scheduled compliance dates of trailers.

4. Narrative description of why exemption is necessary. Description should clearly explain why all available aerodynamic technologies that meet the requirements defined in sections 95303(b)(1)(B)2. or 95303(b)(3)(B)2. for dry-van trailers, or 95303(b)(2)(B)2. or 95303(b)(3)(C)2. for refrigerated-van trailers cannot be installed on the

trailer, and why modification of such technologies is infeasible without compromising the aerodynamic effectiveness of the technology or technologies.

5. Additional supporting materials as requested by the Executive Officer.

(3) Applications for a Trailer Aerodynamic Equipment Compliance Delay may be submitted to the Executive Officer in written or electronic format no sooner than one year prior to the trailer's current compliance date.

(4) The Executive Officer will respond to the application for a Trailer Aerodynamic Equipment Compliance Delay within 30 days of receipt of the application, and notify the applicant in writing of the decision.

(A) The Executive Officer will review the existing list of U.S. EPA SmartWay verified aerodynamic technologies and determine if any of the existing technologies can be installed to meet the requirements defined in sections 95303(b)(1)(B)2. or 95303(b)(3)(B)2. for dry-van trailers, or 95303(b)(2)(B)2. or 95303(b)(3)(C)2. for refrigerated-van trailers.

(B) If the Executive Officer determines that the candidate trailer(s) identified in the application can be equipped with an aerodynamic technology that meets the requirements defined in sections 95303(b)(1)(B)2. or 95303(b)(3)(B)2. for dry-van trailers, or 95303(b)(2)(B)2. or 95303(b)(3)(C)2. for refrigerated-van trailers, the application will be denied.

(C) If approved, the Trailer Aerodynamic Compliance Delay will remain in effect until the Executive Officer notifies the applicant that the U.S. EPA has verified an aerodynamic technology that can be installed on the trailer(s) to meet the requirements defined in sections 95303(b)(1)(B)2. or 95303(b)(3)(B)2. for dry-van trailers, or 95303(b)(2)(B)2. or 95303(b)(3)(C)2. for refrigerated-van trailers. The Executive Officer will use the owner contact information provided in accordance with section 95305(i)(2)(A) to contact the applicant. Once notified, the applicant will be required to install the aerodynamic technology on the trailer(s) within one year from notification.

(j) *Exemption for 2011 or Subsequent Model Year Tractors with Open-shoulder Drive Tires*

(1) Until January 1, 2013, a 2011 or subsequent model year HD tractor pulling a 53-foot or longer box-type trailer subject to the requirements of section 95303(a) may operate on a highway within California with two or more open-shoulder drive tires mounted on the drive axle or axles that are not SmartWay Verified Technologies.

(k) An owner may be prohibited by the Executive Officer from operating his or her vehicles under the provisions of section 95305 if the owner or any of the owner's vehicles that are registered exempt short-haul tractors, local-haul tractors, local-haul trailers, or storage trailers are found in violation of any requirement of section 95305.

(l) *Tractor-Trailer Exemption for Tractors Pulling Empty Trailers*

(1) A HD tractor and the 53-foot or longer box-type trailer it is pulling are exempt from the requirements of sections 95303(a) and 95303(b) if the following conditions are met:

(A) the trailer is empty, and

(B) the driver of the HD tractor pulling the empty trailer, upon request, allows authorized enforcement personnel to directly view the inside of the trailer.

(m) *Tractor Exemption for Phase 1 Certified Tractors*

(1) A 2013 model year Phase 1 Certified Tractor is exempt from the requirements of section 95303(a).

(n) *Exemption for New Trailers*

(1) A 53-foot or longer box-type trailer is exempt from the requirements of section 95303(b) for three consecutive months following the month of its manufacture. For example, if the month of manufacture is September 2013, the exemption would apply through December 2013.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Repealer and new section filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).
3. Amendment of subsections (a)-(a)(1), new subsection (a)(9), amendment of subsection (b)(1), new subsection (b)(8), amendment of subsections (d)(1) and (f)(1)(A), repealer of subsections (i)(2)-(i)(2)(B) and (i)(6), subsection renumbering, amendment of newly designated subsection (i)(2)(B)4., new subsection (i)(4)(A), subsection relettering, amendment of newly designated subsections (i)(4)(B)-(C) and new subsections (m)-(n)(1) filed 12-5-2014; operative 12-5-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 49).
4. Editorial correction of HISTORY 3 (Register 2014, No. 50).

§ 95306. Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements.

(a) To qualify for an exemption set forth in sections 95305(a), 95305(b), 95305(c), or 95305(e), the owner of a HD tractor or the owner of a 53-foot or longer box-type trailer must submit to the Executive Officer all applicable information and statements identified in sections 95306(b) through (f).

(b) *Owner Contact Information:*

(1) Short-haul or local-haul tractor owner's name, and if a corporate entity or governmental agency owns the tractor, the responsible official and title (if applicable);

(2) Local-haul or storage trailer owner's name, and if a corporate entity or governmental agency owns the trailer, the responsible official and title (if applicable);

(3) Name of owner's company, corporation, or governmental agency (if applicable);

(4) Corporate parent (if applicable);

(5) Motor carrier identification number and type;

(6) Street address of owner or owner's company including city, state or province, zip code, colonia (Mexico only), and country;

(7) Mailing address including city, state or province, zip code, colonia (Mexico only), and country;

(8) Owner contact person's name;

(9) Telephone number of contact person;

(10) Email address of contact person (if available);

(11) Company taxpayer identification number (if applicable); and

(12) TRUCRS identification number of corporate parent (if one has been obtained).

(c) *Local-Haul Base Information for Owners of Local-haul Tractors or Trailers* (an owner may have multiple local-haul bases):

(1) Local-haul base contact person's name;

(2) Contact person's title;

(3) Street address of local-haul base including city, state, zip code, colonia (Mexico only), and country; and

(4) Telephone number of local-haul base.

(d) *Short-haul or Local-haul Tractor Fleet Information.* For each tractor to be exempted, the following information:

(1) Type of exemption applied for:

(A) Limit annual miles traveled to 50,000 (short-haul); or

(B) Limit total area of operation to within a 100-mile radius from its local-haul base (local-haul);

(2) Tractor identification number (vehicle identification number (VIN));

(3) Tractor make;

(4) Tractor model;

(5) Tractor model year;

(6) State or province of registration;

(7) Country of registration;

(8) Registration type (state, IRP, temporary, seasonal, monthly, or other);

(9) License plate number;

(10) For short-haul tractors: Odometer reading; and

(11) For local-haul tractors: tractor's local-haul base street address, including city, state, zip code, colonia (Mexico only), and country.

(e) *Local-haul and Storage Trailer Fleet Information.* For each trailer to be exempted, the following information:

- (1) Trailer type (dry van or refrigerated van);
- (2) Trailer identification number (vehicle identification number (VIN));
- (3) Trailer make;
- (4) Trailer model;
- (5) Trailer model year;
- (6) State or province of registration;
- (7) Country of registration;
- (8) Registration type;
- (9) License plate number; and
- (10) For a local-haul trailer only, the local-haul trailer's local-haul base street address, including city, state, and zip code.

(f) A dated written submittal by the owner with the information required by sections 95306(b) through 95306(e) and one or all of the following statements, as applicable:

(1) For all local-haul trailers and tractors:
"I agree to limit the use of this [or these] tractor[s] [or trailer[s]] to the area within a 100-mile radius of the local-haul base[s] identified in this submittal when hauling freight with vehicles subject to sections 95303(a) and (b), title 17, California Code of Regulations. I understand that if I transport any freight in the trailer[s] when pulling it [or them] on California highways outside the 100-mile radius, the tractor[s] [or trailer[s]] will be subject to the equipment requirements of this regulation and may lose exempt status if non-compliant. I also understand that if my tractor[s] [or trailer[s]] is [or are] non-compliant, I may be subject to possible enforcement actions for violations of sections 95300-95312, title 17, California Code of Regulations. I also understand that I am allowed to relocate the trailer[s] to a new location, but only if the trailer[s] is [or are] empty or I have obtained a Relocation Pass[es] for the trailer[s]. If stopped for inspection by authorized enforcement personnel, I will allow inspection of the inside[s] of the trailer[s]. I declare under penalty of perjury that the information provided is true, accurate, and complete."

(2) For short-haul tractors:
"I agree to limit use of this [or these] tractor[s] to 50,000 or fewer miles per year. I understand that operation of the equipment for more than 50,000 miles per year may result in loss of exempt status and possible enforcement actions for violations of sections 95300-95312, title 17, California Code of Regulations. If stopped for inspection by authorized enforcement personnel, I will allow visual inspection of the tractor's [or tractors'] odometer[s]. I declare under penalty of perjury that the information provided is true, accurate, and complete."

(3) For storage trailers:
"I agree to limit use of this [or these] trailer[s] exclusively for the storage of items at a fixed location. I understand that I am allowed to relocate the trailer[s] to a new location, but only if the trailer[s] is [are] empty or I have obtained a Relocation Pass[es] for the trailer[s]. Without a Relocation Pass, if I transport any items in the trailer[s] when pulling it [them] on California highways, the trailer[s] may lose exempt status, which may result in enforcement action for violations of sections 95300-95312, title 17, California Code of Regulations. If stopped for inspection by authorized enforcement personnel, I will allow inspection of the inside[s] of the trailer[s]. I declare under penalty of perjury that the information provided is true, accurate, and complete."

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

- 1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
- 2. Amendment of section heading and section filed 12-12-2011; operative 1-1-2012 (Register 2011, No. 50).

§ 95307. Optional Trailer Fleet Compliance Schedules.

(a) *Trailer Fleet Compliance Schedule Applicability.*

(1) As specified in section 95303(b)(3), an owner of one or more 2010 or previous model year 53-foot or longer box-type trailers may bring such trailers into compliance in accordance with an applicable compliance schedule set forth in this section.

(2) Trailers participating in Option 1 of the large fleet compliance schedule specified in section 95307(b)(1) must be acquired by the fleet owner prior to July 1, 2010.

(3) Trailers participating in Option 2 of the large fleet compliance schedule specified in section 95307(b)(2) must be acquired by the fleet owner prior to July 1, 2011.

(4) Trailers participating in the small fleet compliance schedule specified in section 95307(c) must be acquired by the fleet owner prior to July 1, 2012.

(5) Trailer fleet size determination. For purposes of this section, fleet size is the total of all 53-foot or longer box-type trailers within the owner's fleet, including:

- (A) trailers that do not operate in California; and
- (B) trailers that operate in California, including but not limited to:
 - 1. existing compliant trailers;
 - 2. non-compliant trailers;
 - 3. trailers exempted in accordance with section 95305, Exemptions; and
 - 4. refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F).

(6) *Applicable Compliance Schedules.*

(A) A fleet owner with a trailer fleet size of 21 or more trailers, as determined in accordance with section 95307(a)(5) above, may elect to participate in either of the following two compliance schedule options. A large fleet owner who does not register for one of these options must bring all trailers in the fleet into compliance as specified in section 95303(b)(3)(B) or section 95303(b)(3)(F).

- 1. Option 1 of the large fleet compliance schedule specified in section 95307(b)(1), or
- 2. Option 2 of the large fleet compliance schedule specified in section 95307(b)(2).

(B) A fleet owner with a trailer fleet size of 20 or fewer trailers may elect to participate in either of the large fleet compliance schedule options in section 95307(b), or in the small fleet compliance schedule in section 95307(c).

(b) *Large Fleet Compliance Schedule.*

(1) Option 1 of the large fleet compliance schedule:

(A) Minimum fleet conformance thresholds (Table 1): A trailer owner participating in this large fleet compliance schedule option must ensure that the percentage of compliant trailers on the compliance plan base list, as described in section 95307(d)(3), is equal to or greater than:

- 1. 5 percent by January 1, 2011;
- 2. 15 percent by January 1, 2012;
- 3. 30 percent by January 1, 2013;
- 4. 50 percent by January 1, 2014;
- 5. 75 percent by January 1, 2015; and
- 6. 100 percent by January 1, 2016.

Table 1: Minimum Fleet Conformance Thresholds for the Large Fleet Compliance Schedule (Option 1)

Compliance Year (Y)	Minimum Fleet Conformance Threshold (P _Y)	Conformance Threshold Deadline
2010	5%	January 1, 2011
2011	15%	January 1, 2012
2012	30%	January 1, 2013
2013	50%	January 1, 2014
2014	75%	January 1, 2015
2015	100%	January 1, 2016

(2) Option 2 of the large fleet compliance schedule:

(A) Minimum fleet conformance thresholds (Table 2): A trailer owner participating in this large fleet compliance schedule option must ensure that the percentage of compliant trailers on the compliance plan base list, as described in section 95307(d)(3), is equal to or greater than:

1. 20 percent by June 1, 2012;
2. 40 percent by January 1, 2013;
3. 60 percent by January 1, 2014;
4. 80 percent by January 1, 2015; and
5. 100 percent by January 1, 2016.

Table 2: Minimum Fleet Conformance Thresholds for the Large Fleet Compliance Schedule (Option 2)

<i>Compliance Year (Y)</i>	<i>Minimum Fleet Conformance Threshold (Py)</i>	<i>Conformance Threshold Deadline</i>
2010	—	—
2011	20%	June 1, 2012
2012	40%	January 1, 2013
2013	60%	January 1, 2014
2014	80%	January 1, 2015
2015	100%	January 1, 2016

(3) To participate in either Option 1 or Option 2, a trailer owner must provide the following information to the Executive Officer, electronically or in a document package entitled "Large Fleet Compliance Plan," by July 1, 2010 for Option 1, and by June 1, 2012 for Option 2. This submittal must include the following:

- (A) Statement of intent, in accordance with section 95307(d)(1);
- (B) Trailer fleet list, in accordance with section 95307(d)(2);
- (C) Large fleet compliance plan base number, calculated in accordance with section 95307(e)(1);
- (D) Compliance plan base list, in accordance with section 95307(d)(3);

(E) Annual conformance number for each compliance year, calculated in accordance with section 95307(e)(5); and

(F) Early compliance option reporting, if applicable: If a trailer owner elects to delay the compliance of trailers in accordance with section 95307(h)(4), such owner must submit the following trailer information within the compliance plan:

1. Early compliance trailer number: The number of early compliance trailers determined in accordance with section 95307(b)(4);

2. Early compliance trailer list: A trailer owner participating in the early compliance option must clearly identify on the trailer fleet list all early compliance trailers;

3. Delayed compliance trailer number, calculated in accordance with section 95307(e)(3); and

4. Delayed compliance trailer list: A trailer owner participating in the early compliance option must clearly identify on the trailer fleet list all delayed compliance trailers.

(4) Early compliance option: Subject to the requirements and limitations set forth in this section, for every one early compliance trailer in an owner's fleet, a trailer owner may delay the retrofit or replacement of 1.5 non-compliant trailers until December 31, 2016.

(A) Maximum allowable number of early compliance trailers, as calculated in accordance with section 95307(e)(4): The number of early compliance trailers within a fleet may not exceed the equivalent of 20 percent of the sum of: 1) all trailers that the owner elects to bring into compliance under the large fleet compliance schedule and 2) the total number of trailers within the fleet that are in compliance before January 1, 2010.

(B) A trailer owner must bring all delayed compliance trailers into compliance before January 1, 2017.

(C) Early compliance option report: To participate in the early compliance option, a trailer owner must submit all information required by section 95307(b)(3)(F), as part of the large fleet compliance plan by July 1, 2010 for Option 1, and by June 1, 2012 for Option 2.

(c) *Small Fleet Compliance Schedule.*

(1) Minimum fleet conformance thresholds (Table 3): A trailer owner participating in the small fleet compliance schedule must ensure that the percentage of compliant trailers on the compliance plan base list, as defined in section 95307(d)(3), is equal to or greater than:

- (A) 25 percent by January 1, 2014;
- (B) 50 percent by January 1, 2015;
- (C) 75 percent by January 1, 2016; and
- (D) 100 percent by January 1, 2017.

Table 3: Minimum Fleet Conformance Thresholds for the Small Fleet Compliance Schedule

Compliance Year (Y)	Minimum Fleet Conformance Threshold (P _Y)	Conformance Threshold Deadline
2013	25%	January 1, 2014
2014	50%	January 1, 2015
2015	75%	January 1, 2016
2016	100%	January 1, 2017

(2) Small fleet compliance plan: To participate in the small fleet compliance schedule, a trailer owner must provide the following information to the Executive Officer, electronically or in a document package entitled "Small Fleet Compliance Plan," by July 1, 2012. This submittal must include the following:

- (A) Statement of intent, in accordance with section 95307(d)(1);
- (B) Trailer fleet list, in accordance with section 95307(d)(2);
- (C) Small fleet compliance plan base number, calculated in accordance with section 95307(e)(2);

(D) Compliance plan base list, in accordance with section 95307(d)(3); and

(E) Annual conformance number for each compliance year, calculated in accordance with section 95307(e)(5).

(d) *General Compliance Plan Components.*

(1) Statement of intent: The statement of intent must be provided to the Executive Officer as part of the owner's compliance plan by the applicable compliance plan due date. The statement of intent must include the following:

(A) A statement indicating that the trailer owner elects to participate in an optional trailer fleet compliance schedule;

(B) A statement identifying the compliance schedule in which the trailer owner elects to participate;

(C) For trailer owners electing to participate in the small fleet compliance schedule, a statement affirming that the owner's trailer fleet contains 20 or fewer 53-foot or longer box-type trailers;

(D) A statement affirming that the trailer owner will bring all non-compliant trailers subject to the requirements of this regulation into compliance in accordance with the applicable compliance schedule;

(E) A statement affirming that the trailer owner understands that participation in an applicable compliance schedule may be terminated by the Executive Officer should the fleet owner, or any of the owner's vehicles, be found in violation of this regulation;

(F) A statement affirming that the trailer owner understands that if participation in a compliance schedule is terminated by the Executive Officer, the owner must bring all affected trailers into compliance within 90 days or by December 31, 2012, whichever is later, but in no case later than December 31, 2015 if participating in the large fleet compliance schedule and December 31, 2016 if participating in the small fleet compliance schedule;

(G) A statement affirming that the trailer owner understands that if participation in an applicable trailer fleet compliance schedule is withdrawn, such owner will not be allowed to operate a non-compliant trailer on a highway within California beginning January 1, 2013, except for refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F) and exempted trailers;

(H) A statement affirming that the trailer owner agrees to allow the Executive Officer, or any person authorized by the Executive Officer, to conduct periodic audits of vehicles and records to ensure compliance with the applicable compliance schedule, this regulation, and other air quality regulations; and

(I) A signature, or electronic attestation, of the trailer owner or, where applicable, a company or governmental official, affirming that all information contained within the compliance plan, including information contained within the statement of intent and the trailer fleet list, is true and correct.

(2) Trailer fleet list: The trailer fleet list, as defined in this section, must be provided to the Executive Officer as part of the owner's compliance plan by the applicable compliance plan due date. Except upon specific Executive Officer approval, the trailer owner may not change the number or identity of trailers included on the trailer fleet list once the submission due date for the applicable compliance plan has passed. The trailer fleet list must include the following:

(A) Name of trailer fleet owner, or responsible official and title if the owner is a business entity or governmental agency;

(B) Name of company, corporation, or governmental agency;

(C) Company's motor carrier identification number and type, if applicable;

(D) Company address including city, state or province, zip code, colonia (Mexico only), and country;

(E) Mailing address including city, state or province, zip code, colonia (Mexico only), and country;

(F) Physical address of location where records pertaining to the applicable compliance schedule will be maintained including city, state or province, zip code, colonia (Mexico only), and country;

- (G) Contact person's name;
- (H) Telephone number;
- (I) Email address (if available);
- (J) Company taxpayer identification number (if applicable);
- (K) Name of corporate parent (if applicable);
- (L) TRUCRS identification number of corporate parent (if applicable);
- (M) List of all 2010 and previous model-year 53-foot or longer box-trailers that are subject to the requirements of this subarticle while the owner is participating in an optional trailer fleet compliance schedule:

1. For an owner who elects to participate in one of the large fleet compliance schedules, the trailer list must include all trailers that will operate in California including compliant trailers, non-compliant trailers, exempted trailers, and refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F);

2. For an owner that elects to participate in the small fleet compliance schedule, the trailer list must include all trailers in the owner's fleet, including compliant trailers, non-compliant trailers, exempted trailers, and refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F). For the sole purpose of documenting the owner's eligibility for the small fleet compliance schedule, the trailer list for those submitting a small fleet compliance plan must also include trailers in the fleet that do not travel on a highway within California;

(N) For each trailer listed, provide the following:

1. Trailer type (dry van or refrigerated van);
2. Vehicle identification number (VIN);
3. Trailer make;
4. Trailer model;
5. Trailer model year;
6. License plate number;
7. State or province of registration;
8. Registration type;
9. Country of registration;
10. Compliance status (compliant or non-compliant);
11. Exemption Status (not exempt, exempt local-haul, exempt storage, dedicated to short-haul or local-haul tractors);
12. California operating status (indicate whether the trailer will operate in California during the applicable optional compliance schedule);
13. Transport refrigeration unit model year (as applicable); and
14. Transport refrigeration unit engine model year (as applicable).

(3) Compliance plan base list: The compliance plan base list is the list of all non-compliant trailers identified on the trailer fleet list as trailers that will be brought into compliance in accordance with the applicable compliance schedule. Trailers that are not early compliance trailers but are in compliance before January 1, 2010, may also be included on the compliance plan base list and used to meet minimum fleet conformance thresholds. The compliance plan base list shall not include the following trailers:

- (A) Exempted trailers, including those local-haul trailers and storage trailers exempt under sections 95305(c) and 95305(e);
- (B) Refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F);
- (C) Early compliance trailers, if applicable;
- (D) Delayed compliance trailers, if applicable; and
- (E) Trailers that will not operate in California for the duration of the applicable trailer fleet compliance schedule.

(e) Calculation Methodology.

(1) Large fleet compliance plan base number: The compliance plan base number for large fleets is the number of trailers that a trailer owner elects to bring into compliance in accordance with the large fleet compliance schedule.

$$N_{LB} = N_T - N_D - N_E - N_R - N_X \quad (\text{Equation 1})$$

"N_{LB}" = Large fleet compliance plan base number.

"N_T" = Total number of trailers listed on the trailer fleet list.

"N_D" = Number of delayed compliance trailers, as determined in accordance with section 95307(e)(3), if applicable.

"N_E" = Number of early compliance trailers, not to exceed N_{E, max} as determined in accordance with Equation 5, if applicable.

"N_R" = Number of refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F), if applicable.

"N_X" = Number of trailers with a trailer fleet list exemption status of "exempt local-haul," "exempt storage," "dedicated to short-haul tractors," or "dedicated to local-haul tractors," if applicable.

(2) Small fleet compliance plan base number: The compliance plan base number for small fleets is the number of trailers that a trailer owner elects to bring into compliance in accordance with the small fleet compliance schedule.

$$N_{CA} = N_T - N_{NC} \quad (\text{Equation 2})$$

"N_{CA}" = Total number of trailers in California fleet.

"N_T" = Total number of trailers listed on the trailer fleet list.

"N_{NC}" = Number of trailers that will not operate in California for the duration of an applicable trailer fleet compliance schedule

$$N_{SB} = N_{CA} - N_R - N_X \quad (\text{Equation 3})$$

"N_{SB}" = Small fleet compliance plan base number.

"N_{CA}" = Total number of trailers in California fleet, as determined in accordance with Equation 2.

"N_R" = Number of refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F), if applicable.

"N_X" = Number of trailers with a trailer fleet list exemption status of "exempt local-haul," "exempt storage," "dedicated to short-haul tractors," or "dedicated to local-haul tractors," if applicable.

(3) Large fleet delayed compliance trailer number: The delayed compliance trailer number is the number of trailers for which compliance may be delayed, pursuant to section 95307(b)(4), *Early Compliance Option*.

$$N_D = N_E \times 1.5 \quad (\text{Equation 4})$$

"N_D" = Number of delayed compliance trailers, if applicable. If N_D is not a whole number, round down to the next whole number.

"N_E" = Number of early compliance trailers, not to exceed N_{E, max} as determined in accordance with Equation 5, if applicable.

(4) Large fleet maximum allowable number of early compliance trailers: The resultant number must be rounded down to the nearest whole trailer.

$$N_{E, max} = (N_T - N_R - N_X) \times 0.20 \quad (\text{Equation 5}).$$

"N_{E, max}" = Maximum allowable number of early compliance trailers. If N_{E, max} is not a whole number, round down to the next whole number.

"N_T" = Total number of trailers listed on the trailer fleet list.

"N_R" = Number of refrigerated-van trailers that are eligible for the compliance deadlines set forth in section 95303(b)(3)(F), if applicable.

"N_X" = Number of trailers with a trailer fleet list exemption status of "exempt local-haul," "exempt storage," "dedicated to short-haul tractors," or "dedicated to local-haul tractors," if applicable.

(5) Annual conformance number: The annual conformance number is the number of trailers that a trailer owner must bring into compliance by December 31st of a particular compliance year to ensure that the percentage of compliant trailers within the compliance plan base list meets or exceeds the applicable minimum fleet conformance threshold that takes effect on January 1 of the following year.

$$N_Y = (N_B \times P_Y) - N_{C, Y-1} \quad (\text{Equation 6})$$

"N_Y" = Annual conformance number for compliance year Y. If N_Y is not a whole number, round up to the next whole number if the fractional part is equal to or greater than 0.5, and round down if less than 0.5.

"N_B" = The compliance plan base number, either N_{LB} as calculated in section 95307(e)(1) for a large fleet or N_{SB} as calculated in section 95307(e)(2) for a small fleet.

"P_Y" = Minimum fleet conformance threshold for compliance year Y, as defined in section 95307(b)(1) for large fleets and 95307(c)(1) for small fleets, expressed as a decimal (e.g. 5 percent is entered into equation as 0.05).

"N_{C, Y-1}" = Total number of trailers within the compliance base that would already be in compliance prior to January 1 of compliance year Y. This number must not include early compliance trailers.

(f) Reporting Requirements

(1) For each trailer listed in the compliance plan base list that is brought into compliance in order to meet the conformance threshold of a particular year, the owner must provide the trailer identification number (vehicle identification number (VIN)) and the applicable compliance method for the trailer as defined in (A), (B), or (C) below, to the Executive Officer by no later than December 31st of that year, or by June 1, 2012, whichever is later.

(A) Install on the trailer aerodynamic devices that meet the requirements defined in section 95303(b)(3), or

(B) Remove the trailer from the owner's fleet, or

(C) Restrict the trailer from traveling on California highways.

(2) For each trailer listed in the compliance plan base list that is re-designated into local-haul or storage trailer service in a specific compliance year, the owner must provide the trailer identification number (vehicle identification number (VIN)) to the Executive Officer by no later than December 31st of that year, or by June 1, 2012, whichever is later, and meet all applicable requirements specified in sections 95305, *Exemptions*, and 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*. Trailers re-designated into local-haul or storage trailer service do not count toward meeting an annual conformance number.

(g) General Requirements for All Compliance Schedules: To participate in a trailer fleet compliance schedule, a trailer owner must comply with the following requirements:

(1) The trailer owner must ensure that, by December 31st of each compliance year, or by June 1, 2012, whichever is later, the percentage of compliant trailers on the owner's compliance plan base list is equal to or greater than the applicable minimum fleet conformance threshold for that compliance year;

(2) The trailer owner must ensure that the actual number of trailers brought into compliance each compliance year is equal to or greater than the annual conformance number for that same year;

(3) The trailer owner must allow the Executive Officer, or any other authorized enforcement personnel, to conduct periodic audits of records and equipment to verify compliance with an applicable compliance schedule, the owner's compliance plan, and other applicable air quality regulations;

(4) Should the Executive Officer terminate the trailer owner's participation in a trailer fleet compliance schedule, such trailer owner must bring all trailers into compliance within 90 days of such termination or by December 31, 2012, whichever is later, but no later than December 31, 2015 if participating in the large fleet compliance schedule and December 31, 2016 if participating in the small fleet compliance schedule;

(5) Starting January 1, 2013, except for eligible refrigerated-van trailers that the trailer owner elects to bring into compliance in accordance with section 95303(b)(3)(F) and exempted trailers, a trailer owner may not allow the operation of a non-compliant trailer on a highway within California if such owner withdraws participation from an applicable trailer fleet compliance schedule;

(6) The trailer owner must provide to the Executive Officer any documentation and information required by an applicable trailer fleet compliance schedule by the compliance plan due date specified in such compliance schedule;

(7) The trailer owner must ensure that all information and documentation provided to the Executive Officer is accurate and true;

(8) The trailer owner must ensure that all required information and documentation is received by the Executive Officer by the applicable due dates; the Executive Officer will not be responsible for materials lost in transit;

(9) The trailer owner must maintain all documentation pertaining to an applicable compliance schedule at the location indicated on the trailer fleet list;

(10) Upon the request of the Executive Officer or other authorized enforcement personnel, the trailer owner must provide all information and documentation necessary to verify compliance with this subarticle, including applicable compliance schedules and the owner's compliance plan, and information and documentation necessary to verify compliance with any other air quality regulation;

(11) A trailer owner who is participating in the small fleet compliance schedule may not allow a 2010 or previous model year trailer subject to the requirements of this subarticle to operate on a highway within California after July 1, 2012, unless:

(A) the trailer is listed on the owner's trailer fleet list; or

(B) the trailer was acquired after July 1, 2012 and both of the following criteria are met:

1. the owner provides documented proof to the Executive Officer of the trailer's acquisition (purchase or transfer of ownership) date; and

2. the trailer is a compliant trailer, a refrigerated-van trailer that is eligible to be brought into compliance in accordance with the compliance deadlines set forth in section 95303(b)(3)(F), or exempt under section 95305;

(12) A trailer owner may not allow the operation of a non-compliant trailer on a highway within California after December 31st of the compliance year in which the trailer was reportedly brought into compliance, or by June 1, 2012, whichever is later;

(13) A compliance plan revision may only be made with the approval of the Executive Officer if the Executive Officer determines that a company merger, acquisition, split, or other changed circumstances affecting operations of the owner, necessitate revisions to the compliance plan;

(14) Executive Officer approval will not be granted to allow a newly-formed business, or an existing business commencing operations in California, to participate in a compliance schedule after the submission due date for the applicable compliance plan has passed;

(15) The Executive Officer may make non-confidential information provided pursuant to an optional trailer fleet compliance schedule available to the public for the purpose of helping determine the compliance status of a trailer or fleet;

(16) Although participation in an optional trailer fleet compliance schedule does not require the Executive Officer's specific approval, the Executive Officer may terminate a fleet's participation in a compliance schedule if the fleet or any tractor or trailer within the fleet is found in violation of this subarticle. Should the Executive Officer terminate a fleet's participation in a compliance schedule, the owner must bring all trailers into compliance within 90 days or by December 31, 2012, whichever is later, but in no case later than December 31, 2015, if participating in the large fleet compliance schedule, and December 31, 2016, if participating in the small fleet compliance schedule;

(17) A trailer owner who is participating in one of the large fleet compliance schedule options may not allow a trailer subject to the requirements of this subarticle to operate on a highway within California after July 1, 2010 if participating in Option 1, or June 1, 2012, if participating in Option 2, unless:

(A) the trailer is a compliant trailer; or

(B) the trailer is listed on the owner's compliance plan base list and is in compliance with all requirements of the large fleet compliance schedule; or

(C) the trailer is a refrigerated-van trailer that is eligible to be brought into compliance in accordance with a compliance deadline set forth in section 95303 (b)(3)(F) and such deadline has not yet passed; or

(D) the trailer is exempt under section 95305;

(18) Any violation of the requirements of this subsection constitutes a violation of this subarticle;

(19) A trailer owner who has elected to participate in Option 1 and submitted information in accordance with section 95307(b)(3) may withdraw such participation and elect to participate in Option 2 instead. The notice to withdraw must be received by the Executive Officer no later than May 1, 2012;

(20) A trailer owner that has identified an exempt storage trailer or an exempt local-haul trailer in his or her trailer fleet list in accordance with section 95307(d)(2)(N) must register that trailer in accordance with the requirements of section 95306, *Short-Haul Tractor, Local-Haul Tractor, Local-Haul Trailer, and Storage Trailer Registration Requirements*, by July 1, 2010, if participating in Option 1, by June 1, 2012, if participating in Option 2, and by July 1, 2012, if participating in the Small Fleet Compliance Schedule;

(21) A trailer owner that elects to withdraw participation in a trailer feet compliance schedule must notify the executive officer and bring all trailers on the compliance plan base list into compliance by January 1, 2013.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Editorial correction of subsection (e)(2) (Register 2010, No. 2).
3. Amendment filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).
4. Amendment of subsections (b)(2)(A)1., (b)(2)(A)5. (Table 2), (b)(3), (b)(4)(C), (f)(1), (f)(2), (g)(1), (g)(12), (g)(17) and (g)(19)-(20) filed 3-12-2012 as an emergency; operative 3-12-2012 (Register 2012, No. 11). A Certificate of Compliance must be transmitted to OAL by 9-10-2012 or emergency language will be repealed by operation of law on the following day.

§ 95308. Enforcement.

Enforcement of this subarticle may be carried out by authorized enforcement personnel, which includes representatives of the Air Resources Board (ARB); peace officers as defined in California Penal Code, title 3, chapter 4.5, sections 830 et seq. and their respective law enforcement agencies; authorized representatives of air pollution control or air quality management districts; and any other designee of the Executive Officer.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Amendment filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).

§ 95309. Right of Entry.

For purposes of inspecting HD tractors and box-type trailers covered in the subarticle, and inspecting or auditing the records of drivers, owners of trailers and tractors, motor carriers, California-based brokers, California-based shippers, and California-licensed vehicle dealers to determine compliance with this subarticle, an agent or employee of ARB, upon presentation of proper credentials, has the right to enter any facility (with any necessary safety clearances) where HD tractors and box-type trailers are located or HD tractor and box-type trailer records, including dispatch records, are kept.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Amendment filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).

§ 95310. Penalties.

As provided in Health and Safety Code section 38580, any person who violates any requirement of this subarticle is subject to the penalties set forth in Article 3 (commencing with section 42400) of Chapter 4 of Part 4, Division 26 of the Health and Safety Code. Failure to comply with any requirement of this subarticle shall constitute a single, separate violation for each day during any portion of which the person is not in compliance.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).

§ 95311. Record Keeping.

(a) A California-licensed vehicle dealer of a HD tractor or 53-foot box-type trailer that is subject to the disclosure of regulation applicability requirements of section 95303(i) must maintain a record of the disclosure of regulation applicability for three years after the sale.

(b) A lessor of a HD tractor or a 53-foot or longer box-type trailer that has provided a lessee with a statement or written notice that informs the lessee about the lessee's obligation under terms of the lease to ensure compliance with sections 95300 through 95312, title 17, California Code of Regulations, must maintain a record of this statement or written notice for three years after it is provided to the lessee.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. New section filed 12-9-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 50).
2. Renumbering of former section 95311 to new section 95312 and new section 95311 filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).

§ 95312. Severability.

If any section, paragraph, subparagraph, sentence, clause, phrase, or portion of the subarticle is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this subarticle.

NOTE: Authority cited: Sections 39600, 39601, 38510, 38560 and 38560.5, Health and Safety Code. Reference: Sections 39600, 38560, 38560.5 and 38580, Health and Safety Code.

HISTORY

1. Renumbering and amendment of former section 95311 to new section 95312 filed 12-12-2011; operative 1-11-2012 (Register 2011, No. 50).

Subarticle 2. Semiconductors and Related Devices

§ 95320. Purpose.

The purpose of this regulation is to reduce fluorinated gas emissions from the semiconductor industry pursuant to the California Global Warming Solutions Act of 2006 (Health & Safety Code, sections 38500 et. seq.).

NOTE: Authority cited: Sections 38501, 38510, 38560, 38560.5, 38580, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38550, 38551, 38560, 38560.5, 39600 and 39601, Health and Safety Code.

HISTORY

1. New subarticle 2 (sections 95320-95326) and section filed 12-14-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 51).

§ 95321. Applicability.

This regulation applies to an owner or operator of a semiconductor or related devices operation that uses fluorinated gases or heat transfer fluids. This includes, but is not limited to, the processing of diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light-sensing devices, and light-emitting devices.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38560.5, 38580, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38550, 38551, 38560, 38560.5, 39600 and 39601, Health and Safety Code.

HISTORY

1. New section filed 12-14-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 51).

§ 95322. Definitions.

(a) For the purposes of this article, the following definitions apply:

(1) "Alternative Chemistries" means the substitution of a fluorinated gas in the chamber cleaning or etching process to increase utilization efficiency and reduce the carbon dioxide equivalent emissions.

(2) "Calendar Year" means the time period from January 1 through December 31.

(3) "Carbon Dioxide Equivalent" or "CO₂e" means a measure for comparing carbon dioxide with other greenhouse gases, based on the quantity of those gases multiplied by the appropriate global warming potential (GWP) factor.

(4) "CO₂e Emissions Limit" means the maximum allowable kilograms of CO₂e emissions per square centimeter of wafers processed in a calendar year.

(5) "Chamber Cleaning" means the process of using fluorinated gases to remove excess materials from chemical vapor deposition chamber walls to prevent contamination of wafers to be processed.

(6) "Chemical Vapor Deposition (CVD)" means deposition of thin films on wafers by placing the wafers in a mixture of gases, including nitrogen or another gas used as a carrier, which react at the surface of the wafers.

(7) "Equipment" means any article, machine, or other contrivance, or combination thereof, which may cause the issuance or control the issuance of fluorinated gas emissions in etching or CVD chamber cleaning processes.

(8) "Etching" means a chemical reactive process for selectively removing material on a wafer using fluorinated, ionized gases.

(9) "Fluorinated Gases" means a compound that contains fluorine and exists in a gaseous state at 25 degrees Celsius and 1 atmosphere of pressure. Fluorinated gases include, but are not limited to:

- (A) hexafluoroethane (C₂F₆),
- (B) octafluoropropane (C₃F₈),
- (C) octafluorocyclopentene (C₅F₈),
- (D) tetrafluoromethane (CF₄),
- (E) trifluoromethane (CHF₃),
- (F) difluoromethane (CH₂F₂),
- (G) octafluorocyclobutane (c-C₄F₈),
- (H) octafluorotetrahydrofuran (C₄F₈O),
- (I) hexafluoro-1,3-butadiene (C₄F₆),
- (J) carbon fluoride oxide (COF₂),
- (K) nitrogen trifluoride (NF₃), and
- (L) sulfur hexafluoride (SF₆).

(10) "Global Warming Potential (GWP)" means the radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time.

(11) "Global Warming Potential Value" or "GWP Value" means the global warming potential value of a chemical or compound as specified in the IPCC: 1996 Second Assessment Report (SAR), Table 2.14, in Climate Change 2007: The Physical Sciences Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, which is incorporated by reference herein.

If Table 2.14 does not contain a SAR 100-year GWP Value for a specific chemical or compound, then the 100-year GWP Value in Table 2.14 for that chemical or compound must be used.

(12) "Heat Transfer Fluid" means a fluorinated fluid which prevents a device, such as a semiconductor, from overheating by removing excess heat produced during a manufacturing process.

(13) "Permitting Agency" means any air pollution control district or air quality management district.

(14) "Process Optimization" means the practice of using end-point detectors and/or process parameter variation to achieve optimum gas usage to reduce excess fluorinated gas emissions.

(15) "Semiconductor Operation" means an operation performed to process semiconductor devices or related solid state devices. It may include, but is not limited to, the processing of diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light-sensing devices, and light-emitting devices.

(16) "Wafer" means a thin, usually round, slice of a material from which integrated circuits, or chips, are made.

(17) "Wafer Surface Area" means the entire surface area of one side of a wafer, or multiple wafers, and includes wafers that do not pass owner or operator inspection.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38560.5, 38580, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38550, 38551, 38560, 38560.5, 39600 and 39601, Health and Safety Code.

HISTORY

1. New section filed 12-14-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 51).

§ 95323. Standards.

(a) Except as provided in section 95323(b), an owner or operator of a semiconductor operation must meet the emission standards in Table 1 by January 1, 2012. An operation that is replacing CVD or etching tools that process 150 millimeter diameter wafers with tools that process 200 millimeter diameter or larger wafers must comply with the Table 1 emission standards by January 1, 2014.

The Tier 1 emission standard shall apply to an owner or operator of a semiconductor operation that processes more than 37.7 million square centimeters of wafer surface area per calendar year. The Tier 1 emission standard shall also apply to the owner or operator of a semiconductor operation that begins operation after January 1, 2010.

(1) Emissions Calculation Method

An owner or operator must express fluorinated gas emissions in CO₂e units. The kilograms of fluorinated gas emissions are determined using the Tier 2b calculation method in the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, incorporated by reference herein. The IPCC 1996 Second Assessment Report (SAR) provides the GWP values used to calculate fluorinated gas emissions, with the exception of NF₃ which is based on the GWP value from the IPCC Fourth Assessment Report.

An owner or operator of a semiconductor operation may request that the permitting agency approve the use of an alternative destruction removal efficiency (DRE) value that exceeds the default DRE value in the Tier 2b calculation method. An alternative DRE must be based on independent third party measured results for the emission control equipment used by the operation.

The kilograms of fluorinated gas emissions from CVD chamber cleaning and etching are converted to million metric tons of CO₂ equivalent (MMT CO₂e) using the following formula:

$$\text{Total Fluorinated Gas Emissions in MMT CO}_2\text{e} = \sum E_i(\text{GWP}_{100})_i / 10^9$$

Where:

- E = the kilograms of fluorinated gas emitted using the Tier 2b method
- i = the fluorinated gas
- GWP₁₀₀ = the GWP of the fluorinated gas
- 10⁹ = the number of kilograms per million metric ton

For an operation emitting more than 0.0008 MMT CO₂e per calendar year, total fluorinated gas emissions in MMT CO₂e are converted to kilograms of CO₂ equivalents per square centimeter (Kg CO₂e/cm²) using the following formula:

$$\text{Emissions in Kg CO}_2\text{e/cm}^2 = (\text{MMT CO}_2\text{e}) / \sum [(\pi r_n^2 Wf_n) / 100]$$

Where:

- 10⁹ = the number of kilograms per million metric ton
- π = 3.1416
- r_n = one half the diameter in millimeters of a given size wafer
- n = diameter of a wafer in millimeters
- Wf_n = the number of wafers of a given size processed in the calendar year

100 = the number of square millimeters per square centimeter

Table 1
Emission Standards for Semiconductor Operations
Effective January 1, 2012

CVD Chamber Cleaning and Etching Processes	
Wafer Surface Area Processed (Million Square Centimeters Per Calendar Year)	Maximum Emissions Limit Per Square Centimeter for a Calendar Year (Kg CO ₂ e/cm ²)
Tier 1: >37.7	0.2
Tier 2: >3.7 and ≤37.7	0.3
Tier 3: ≤3.7	0.5

(b) The emission standards in Table 1 shall not apply to a semiconductor operation that emits 0.0008 million metric tons or less of CO₂e per calendar year.

(c) The owner or operator of a semiconductor operation that is installing equipment to meet the emission standards in Table 1 must submit a permit application to the permitting agency no later than March 1, 2011.

(d) The owner or operator of a semiconductor operation that is installing equipment to meet the emission standards in Table 1 by January 1, 2014 pursuant to section 95323(a), must submit a permit application to the permitting agency no later than March 1, 2013.

NOTE: Authority cited: Sections 38501, 38510, 38560, 38560.5, 38580, 39600 and 39601, Health and Safety Code. Reference: Sections 38501, 38505, 38510, 38550, 38551, 38560, 38560.5, 39600 and 39601, Health and Safety Code.

HISTORY

1. New section filed 12-14-2009; operative 1-1-2010 pursuant to Government Code section 11343.4 (Register 2009, No. 51).

§ 95324. Reporting Requirements.

(a) Initial emissions reporting requirement

The owner or operator of a semiconductor operation must submit an initial emissions report pursuant to the requirements in section 95324(b) to the permitting agency no later than March 1, 2011. This report must quantify the monthly and annual emissions from semiconductor operations conducted during the 2010 calendar year.

(b) Annual emissions reporting requirements

The owner or operator of a semiconductor operation must submit an annual report to the permitting agency by March 1st of each calendar year that quantifies CO₂e emissions occurring in the previous calendar year.

The annual report must include, but may not be limited to, all of the following in subsections (b)(1) through (b)(11).

(1) the company name, address, telephone number, designated contact person and e-mail address for the contact person;

(2) the monthly and annual amounts, in kilograms, of each of the following fluorinated gases used for CVD chamber cleaning and etching:

(A) hexafluoroethane (C₂F₆),

(B) octafluoropropane (C₃F₈),

(C) octafluorocyclopentene (C₅F₈),

(D) tetrafluoromethane (CF₄),

(E) trifluoromethane (CHF₃),

(F) difluoromethane (CH₂F₂),

(G) octafluorocyclobutane (c-C₄F₈),

(H) octafluorotetrahydrofuran (C₄F₈O),

(I) hexafluoro-1,3-butadiene (C₄F₆),

(J) carbon fluoride oxide (COF₂),

(K) nitrogen trifluoride (NF₃), and

(L) sulfur hexafluoride (SF₆).

(3) the monthly and annual square centimeters of wafers processed;

(4) the use of process optimization, alternative chemistries, or equipment to reduce fluorinated gas emissions and estimated emissions reductions in CO₂e per square centimeter of wafer processed;

(5) monthly and annual CO₂e emissions determined in accordance with section 95323(a)(1);

(6) the volume of fluorinated heat transfer fluids used in the processing of semiconductors;

(7) the volume of fluorinated heat transfer fluids purchased;

(8) whether the heat transfer fluid was added to an existing cooling system, used to fill a new system, or both;

(9) the volume of heat transfer fluid added to an existing cooling system or used to fill a new system;

(10) the specific brand name of the heat transfer fluid used; and

(11) a certification statement from the owner or operator that the information provided is true, accurate and complete.

(c) The owner or operator of a semiconductor operation shall report emission control equipment breakdowns, malfunctions, and failures in accordance with the permitting agency's requirements.

(d) The owner or operator of a semiconductor operation that emits 0.0008 MMT or less of CO₂e per calendar year is not subject to the reporting requirements in section 95324(b)(3) and (b)(4) and may provide annual data in lieu of monthly data in the emission reports.

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