

## ATTACHMENT A

### PROPOSED 15-DAY MODIFICATIONS TO THE PROPOSED REGULATION ORDER FOR PHASE 2 GREENHOUSE GAS REGULATIONS

The following text contains staff's suggested modifications to the originally proposed regulatory text for sections 1956.8 and 2036, title 13, California Code of Regulations (CCR) and sections 95301, 95302, 95303, and 95663, title 17, CCR. The originally proposed regulatory language is shown in underline to indicate additions and ~~striketrough~~ to indicate deletions. The suggested modifications to the proposed regulations are shown in double underline to indicate additions and ~~double striketrough~~ to indicate deletions. Various portions of the regulations that are not modified by staff's suggested modifications are omitted from the text shown and indicated by "\* \* \* \*".

1. Amend section 1956.8, title 13, CCR, to read as follows:

#### **§ 1956.8. Exhaust Emission Standards and Test Procedures - 1985 and Subsequent Model Heavy-Duty Engines and Vehicles.**

\* \* \* \*

Note: Authority cited: Sections 38501, 38505, 38510, 38560, 38580, 39500, 39600, 39601, 40000, 43013, 43018, 43100, 43101, 43102, 43104, 43105, 43106, ~~43107~~ and 43806, Health and Safety Code; and Section 28114, Vehicle Code. Reference: Sections 38501, 38505, 38510, 38560, 38580, 39002, 39003, 39010, 39017, 39033, 39500, 39600, 39601, 39610, 39650, 39657, 39667, 39701, 40000, 43000, 43000.5, 43009, 43009.5, 43013, 43017, 43018, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, ~~43107~~, 43202, 43204, 43205, 43205.5, 43206, 43210, 43211, 43212, 43213 and 43806, Health and Safety Code; and Section 28114, Vehicle Code.

2. Amend section 2036, title 13, CCR, to read as follows:

**§ 2036. Defects Warranty Requirements for 1979 Through 1989 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles; 1979 and Subsequent Model Motorcycles and Heavy-Duty Vehicles; and Motor Vehicle Engines Used in Such Vehicles.**

\* \* \* \*

(c) Warranty Period.

\* \* \* \*

(4) In the case of diesel-powered heavy-duty vehicles at or above 14,001 pound gross vehicle weight rating (GVWR) ~~(except medium-duty vehicles)~~, and motor vehicle engines used in such vehicles, a period of use of five years, 100,000 miles, or 3000 hours of operations, whichever first occurs. However, in no case may this period be less than the basic mechanical warranty that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the emissions warranty shall also be shared in the same manner as specified in the warranty agreement.

(4.1) In the case of diesel-powered heavy-duty vehicles ~~below~~ from 14,001 to 19,500 pound GVWR ~~(except medium-duty vehicles)~~ certified to the greenhouse gas (GHG) emission standards of section 95663, title 17, and ~~motor vehicle engines used in such vehicles,~~ a period of use of five years or 50,000 miles, whichever first occurs, for GHG emission control components (except tires), as set forth in 40 CFR 1037.120, as ~~adopted November 14, 2011~~ amended October 25, 2016. The warranty period shall be a period of use of two years or 24,000 miles, whichever first occurs, in the case of tires used in such vehicles. In the case of motor vehicle engines used in such vehicles, the warranty period shall be a period of use of five years or 50,000 miles, whichever first occurs, for GHG emissions.

\* \* \* \*

(8) In the case of heavy-duty vehicles at or above 14,001 pound GVWR, and motor vehicle engines used in such vehicles, ~~(except for diesel-powered heavy-duty vehicles or all medium-duty vehicles,~~ and motor vehicle engines used in such vehicles), a period of use of five years or 50,000 miles, whichever first occurs. However, in no case may this period be less than the basic mechanical warranty period that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the

manufacturer, the emissions warranty shall also be shared in the same manner as specified in the warranty agreement.

(8.1) In the case of heavy-duty vehicles at or above 14,001 pound GVWR certified to the GHG emission standards of section 95663, title 17, ~~and motor vehicle engines used in such vehicles, (except for diesel-powered heavy-duty vehicles or all medium-duty vehicles, and motor vehicle engines used in such vehicles)~~, a period of use of five years or 50,000 miles, whichever first occurs, for GHG emission control components (except tires), as set forth in 40 CFR 1037.120, as ~~adopted November 14, 2011~~ amended October 25, 2016. The warranty period shall be a period of use of two years or 24,000 miles, whichever first occurs, in the case of tires used in such vehicles. In the case of motor vehicle engines used in such vehicles, the warranty period shall be a period of use of five years or 50,000 miles, whichever first occurs, for GHG emissions.

\* \* \* \*

3. Amend section 95301, title 17, CCR, to read as follows:

**§95301. Applicability.**

\* \* \* \*

(b) The requirements in this subarticle do not apply to the following trailers:

- (1) drop-frame trailers;
- (2) chassis trailers;
- (3) curtain-side trailers;
- (4) livestock trailers;
- (5) refuse trailers;
- (6) box-type trailers less than or equal to 5053 feet in length;
- (7) emergency vehicles; ~~and~~
- (8) military tactical support vehicles~~;~~
- (9) box-type trailers less than 53 feet in length that were manufactured prior to January 1, 2020;
- (10) trailers exempt under the provisions of 40 CFR 1037.150(v) as it existed on October 25, 2016, which is incorporated by reference herein, or in section 95663(d), title 17, California Code of Regulations; and
- (11) trailers certified to the non-aero box van trailer standards of 40 CFR 1037.107 as it existed on October 25, 2016, which is incorporated by reference herein, or in accordance with section 95663(c)(1)(B)2.c., title 17, California Code of Regulations.

4. Amend section 95302, title 17, CCR, to read as follows:

**§95302. Definitions.**

(a) The following definitions apply to this subarticle:

\* \* \* \*

(43.2) “Phase 2 Certified Trailer” means a trailer that has been certified by the U.S. Environmental Protection Agency in accordance with the provisions of the CO2 emission standards specified in 40 CFR 1037.107 of the Federal Phase 2 Regulation, as they existed on October 25, 2016, which is incorporated by reference herein December 22, 2017, or by the California Air Resources Board in accordance with the provisions of section 95663(c), title 17, California Code of Regulations. A trailer exempt under the provisions of 40 CFR 1037.150(v), as it existed on Oct. 25, 2016, which is incorporated by reference herein, or in section 95663(d), title 17, California Code of Regulations; or certified to the non-aero box van trailer standards of 40 CFR 1037.107 of the Federal Phase 2 Regulation, or in accordance with section 95663(c)(1)(B)2.c., title 17, California Code of Regulations, is not considered a “Phase 2 Certified Trailer” for purposes of this regulation.

5. Amend section 95303, title 17, CCR, to read as follows:

**§95303. Requirements and Compliance Deadlines.**

\* \* \* \*

(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~~long 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) a Phase 2 certified trailer, or

(C) equipped with both:

1. tires that are either U.S. EPA SmartWay Verified Technologies, or tires with a rolling resistance of 5.1 kilogram/tonne (i.e., kilogram per metric ton) or lower as determined by the test procedures specified in 40 CFR 1037.515(b), as it existed on Oct. 25, 2016, which is incorporated by reference herein, or in section 95663(d) title 17, California Code of Regulations; 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)(~~BC~~)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. or

- c. an aerodynamic device or combination of devices for which the device manufacturer has obtained a preliminary approval for the measured performance of the device on such trailer, in accordance with the provisions of 40 CFR 1037.211, as it existed on Oct. 25, 2016, which is incorporated by reference herein, or in section 95663(d) title 17, California Code of Regulations, and that measured performance is equal to or greater than 0.40 (delta CdA in square meters), or
- d. an aerodynamic device or combination of devices for which the device manufacturer has obtained a preliminary approval for the measured performance of the device that met the criteria defined in section 95303(b)(1)(C)2.c., but has been modified in any manner from the approved configuration. Only modifications that are required to enable a particular device to be installed on a trailer are allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified approved 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 approved 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~~ long 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) a Phase 2 certified trailer, or
- (C) equipped with both:

1. tires that are either U.S. EPA SmartWay Verified Technologies, or tires with a rolling resistance of 5.1 kilogram/tonne (i.e., kilogram per metric ton) or lower as determined by the test procedures specified in 40 CFR 1037.515(b), as it existed on October 25, 2016, or in section 95663(d) title 17, California Code of Regulations; 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)(BC)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, or-
  - c. an aerodynamic device or combination of devices for which the device manufacturer has obtained a preliminary approval for the measured performance of the device on such trailer, in accordance with the provisions of 40 CFR 1037.211, as it existed on Oct. 25, 2016, which is incorporated by reference herein, or in section 95663(d) title 17, California Code of Regulations, and that measured performance is equal to or greater than 0.40 (delta CdA in square meters), or
  - d. an aerodynamic device or combination of devices for which the device manufacturer has obtained a preliminary approval for the measured performance of the device that met the criteria defined in section 95303(b)(1)(C)2.c., but has been



modified in any manner from the approved configuration. Only modifications that are required to enable a particular device to be installed on a trailer are allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified approved 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 approved 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~~long 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~~long 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~~long 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

\* \* \* \*

- (C) By January 1, 2013, a 2010 or previous model year ~~53-foot or longer~~long 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

\* \* \* \*

- (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~~long 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~~long 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~~long 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

(4) Interim Requirements for 2018 and 2019 Model Year Long Dry-Van and Long Refrigerated- Van Trailers

In lieu of meeting the requirements defined in section 95303 (b)(1)(C) 2. for dry-van trailers and 95303 (b)(2)(C)2. for refrigerated van trailers, a 2018 or 2019 MY dry-van or refrigerated-van trailer may be equipped with:

- (A) a trailer aerodynamic device or combination of devices that when installed on the trailer would result in a delta CdA value relative to a baseline trailer equal to or greater than 0.40 (delta CdA in square meters), as determined in accordance with the methodology described in 40 CFR 1037.526 as it existed on October 25, 2016, which is incorporated by reference herein. The device or combination of devices 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 test methodology, test results, and on good engineering judgment.
- (B) Or, an aerodynamic device or combination of devices that met the criteria defined in section 95303(b)(4)(A), but has been modified in any manner from the approved configuration. Only modifications that are required to enable a particular device to be installed on a trailer are

allowed. Such modifications must not significantly increase the aerodynamic drag of the base, unmodified approved 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 approved configuration, and on good engineering judgment.

(c) *Requirements for Drivers.*

- (1) A driver may not operate a HD tractor to pull a ~~53-foot or longer~~long 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*.

\* \* \* \*

- (J) if operating a HD tractor pulling a ~~53-foot or longer~~long 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~~long box-type trailer that is exempt pursuant to section 95305(l) 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~~long 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~~long 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~~long box-type trailer must ensure that the ~~53-foot or longer~~long box-type trailer will not be pulled by a HD tractor on a highway within California unless the ~~53-foot or longer~~long 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~~long 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~~long 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);

\* \* \* \*

(g) *Requirements for Motor Carriers.*

- (1) A motor carrier must:
  - (A) only dispatch a HD tractor or a ~~53-foot or longer~~long 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);

\* \* \* \*

(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~~long box-type trailer pulled by a HD tractor on a highway within California unless the HD tractor and the ~~53-foot or longer~~long 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~~long 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.

6. Amend section 95663, title 17, CCR, to read as follows:

**§95663. Greenhouse Gas Exhaust Emission Standards and Test Procedures for New 2014 and Subsequent Model Heavy-Duty Vehicles.**

\* \* \* \*

(a) GHG Exhaust Emission Standards for New 2014 and Subsequent Model Heavy-Duty Vocational Vehicles and Tractors ~~over 14,000 Pounds GVWR~~

\* \* \* \*

(2) Diesel and Otto-Cycle Tractors above 26,000 Pounds GVWR.

\* \* \* \*

(B) Phase 2 Emission Standards. The CO<sub>2</sub> emissions for new 2021 and subsequent model tractors above 26,000 pounds GVWR shall not exceed:

<b><u>Phase 2 CO<sub>2</sub> Emission Standards for 2021 and Subsequent Model Tractors</u></b> <b><u>(g/ton-mile)</u></b>				
<b><u>GVWR (pounds)</u></b>	<b><u>Sub-Category<sup>1</sup></u></b>	<b><u>Model Years 2021 - 2023</u></b>	<b><u>Model Years 2024 - 2026</u></b>	<b><u>Model Year 2027 and later</u></b>
<u>26,000 &lt; GVWR ≤ 33,000</u>	<u>Low-Roof (all cab styles)</u>	<u>105.5</u>	<u>99.8</u>	<u>96.2</u>
	<u>Mid-Roof (all cab styles)</u>	<u>113.2</u>	<u>107.1</u>	<u>103.4</u>
	<u>High-Roof (all cab styles)</u>	<u>113.5</u>	<u>106.6</u>	<u>100.0</u>
<u>GVWR &gt; 33,000</u>	<u>Low-Roof Day Cab</u>	<u>80.5</u>	<u>76.2</u>	<u>73.4</u>
	<u>Low-Roof Sleeper Cab</u>	<u>72.3</u>	<u>68.0</u>	<u>64.1</u>
	<u>Mid-Roof Day Cab</u>	<u>85.4</u>	<u>80.9</u>	<u>78.0</u>
	<u>Mid-Roof Sleeper Cab</u>	<u>78.0</u>	<u>73.5</u>	<u>69.6</u>
	<u>High-Roof Day Cab</u>	<u>85.6</u>	<u>80.4</u>	<u>75.7</u>
	<u>High-Roof Sleeper Cab</u>	<u>75.7</u>	<u>70.7</u>	<u>64.3</u>
<u>Heavy-Haul Tractors</u>	-	<u>52.4</u>	<u>50.2</u>	<u>48.3</u>

<sup>1</sup>Sub-category terms are defined in in the applicable test procedures incorporated by reference in section (d).

\* \* \* \*

(ed) The test procedures for determining compliance with GHG emission standards applicable to 2014 and subsequent model medium- and heavy-duty vehicles are set forth in the “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles,” adopted October 21, 2014, as last amended \_\_\_\_\_, ~~and in the “California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light Duty Trucks, and Medium-Duty Vehicles, as last amended \_\_\_\_\_,~~ which ~~is~~are incorporated by reference herein.

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