At its December 12, 2013, public hearing, the Air Resources Board (ARB or Board) approved for adoption the following heavy-duty vehicle-related proposals:

- Adoption of new regulations to establish GHG emission standards for medium- and heavy-duty engines and vehicles to harmonize with the existing federal GHG emission standards (Phase 1 GHG Emissions Standards) for medium- and heavy-duty engines and vehicles, consisting of proposed amendments to title 13, California Code of Regulations (CCR), sections 1900, 1956.8, 2036, 2037, 2112, 2139, 2140, and 2147, and proposed adoption of new sections 95660 to 95664, title 17, CCR, including the following test procedures that are incorporated by reference herein: proposed new test procedure entitled “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles,” which would be incorporated by reference in title 17, CCR, 95663(c); proposed amended test procedure “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles,” last amended April 18, 2013, incorporated by reference in title 13, CCR, 1956.8(b); and proposed amended test procedure “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines,” last amended April 18, 2013, incorporated by reference in title 13, CCR, 1956.8(d).

- Amendments to ARB’s existing Heavy-Duty Vehicle GHG Emission Reduction Regulation (Tractor-Trailer GHG Regulation) to align with the federal Phase 1 GHG Regulations and to clarify the requirements for tractors retrofitted with sleeper-cab compartments, title 17, CCR, sections 95300, 95301, 95302, 95303, and 95305.
Adoption of new, optional oxides of nitrogen (NOx) standards for heavy-duty vehicle engines, which consist of amendments to title 13, CCR, section 1956.8, to the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles,” last amended April 18, 2013, and to the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles,” last amended April 18, 2013.

Amendments to the Airborne Toxic Control Measure (ATCM) to Limit Diesel-fueled Commercial Motor Vehicle Idling (Idling ATCM) to expand compliance responsibility, title 13, CCR, section 2485.


At the hearing, in response to comments received since the Staff Report was released on October 23, 2013, the staff presented and the Board approved modifications to the regulations and incorporated test procedures that were originally proposed in the Staff Report.

**Phase 1 GHG Regulations**

At the hearing, the Board adopted Resolution 13-50, that covered the proposed amendments to title 13, CCR, sections 1900, 1956.8, 2036, 2037, 2112, 2139, 2140, and 2147, and proposed adoption of new title 17, CCR, sections 95660, 95661, 95662, 95663, and 95664, including the following test procedures that are incorporated by reference herein: proposed new test procedure entitled “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles,” which would be incorporated by reference in title 17, CCR, 95663(c); proposed amended test procedure “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles,” last amended April 18, 2013, incorporated by reference in title13, CCR, 1956.8(b); proposed amended test procedure “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines,” last amended April 18, 2013, incorporated by reference in title13, CCR, 1956.8(d) (incorporated test procedures). These proposed amendments and adoption of new regulatory sections and associated test procedures were initially proposed by staff and described in the Notice of Public Hearing (45-Day Public Notice) and Staff Report, which were initially published on October 23, 2013. A modification was suggested by staff in a document entitled “Staff’s Suggested Modifications to the Original Proposal” that was distributed at the hearing and that was Attachment E to Resolution 13-50. This substantive modification to the original proposal provides manufacturers additional lead
time, until January 1, 2015, to produce California engine and vehicle labels, instead of immediately upon the effective date of the regulation, which is approximately the fall of 2014.

In accordance with Government Code section 11346.8, the Board directed the Executive Officer to adopt the proposed amendments to title 13, CCR, sections 1900, 1956.8, 2036, 2037, 2112, 2139, 2140, and 2147, the proposed adoption of title 17, CCR, sections 95660, 95661, 95662, 95663, and 95664, the proposed amendments to “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles,” last amended April 18, 2013, incorporated by reference in title 13, CCR, 1956.8(b); proposed amendments to “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines,” last amended April 18, 2013, incorporated by reference in title 13, CCR, 1956.8(d), and proposed new test procedure “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles,” incorporated by reference in title 17, CCR, 95663(c); with the modifications set forth in Attachment E to Resolution 13-50, after making them and any additional supporting documents and information available to the public for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Summary of Proposed Modifications to the Phase 1 GHG Regulations

Attachment A-1 to this notice shows the proposed 15-day modifications to title 17, CCR, section 95663. Attachment A-2 to this notice shows the proposed 15-day modifications to “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles,” last amended April 18, 2013. Attachment A-3 to this notice shows the proposed 15-day modifications to “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines,” last amended April 18, 2013. Attachment A-4 to this notice shows the proposed 15-day modifications to “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles.”

The following is a summary of the proposed modifications and staff’s rationale for making them.

A. Title 17, CCR, Section 95663

1. Section 95663 (a)(2)(B) contained incorrect references to (a)(2)(C)(1) and (a)(2)(C)(2); these subsections do not exist. These references have been corrected to reference subsections (a)(2)(B)(1) and (a)(2)(B)(2), respectively.
B. California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles

1. A new “NOTE” section, which describes other test procedures and documents to complete heavy-duty engine certification, has been added that is identical to the existing “NOTE” of the California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles. The previous “NOTE,” proposed as part of the originally proposed regulatory text, has been deleted as a result. This proposed modification ensures consistency between the two sets of test procedures.

2. The referenced dates of various Phase 1 regulatory sections of the Code of Federal Regulations (CFR) have been updated to reflect the dates of Final Rule publication in the Federal Register, rather than the originally proposed effective dates of the Final Rule. For the CFR sections of the original, federal Phase 1 GHG regulations, the updated date is September 15, 2011, instead of the effective date of November 14, 2011. The sections updated are 40 CFR, sections 86.1, 86.016-1, 86.012-2, 86.1863-07, 1036.1, 1036.2, 1036.10, 1036.15, 1036.30, 1036.100, 1036.108, 1036.115, 1036.130, 1036.135, 1036.140, 1036.210, 1036.230, 1036.235, 1036.241, 1036.250, 1036.255, 1036.401, 1036.501, 1036.530, 1036.601, 1036.610, 1036.625, 1036.701, 1036.705, 1036.710, 1036.715, 1036.720, 1036.725, 1036.730, 1036.735, 1036.740, 1036.745, 1036.750, 1036.801, 1036.805, 1036.810, 1036.815, 1036.820, 1036.825, 1065.1, 1065.15, 1065.20, 1065.125, 1065.140, 1065.170, 1065.190, 1065.205, 1065.220, 1065.225, 1065.250, 1065.260, 1065.265, 1065.267, 1065.270, 1065.272, and 1065.602. Moreover, for the technical amendments of the Direct Final Rule to the federal Phase 1 GHG regulations, the section modified date is June 17, 2013, instead of the originally proposed August 16, 2013. The sections updated with the June 17, 2013, date are 40 CFR, sections 86.007-23, 1036.5, 1036.150, 1036.205, 1036.225, 1036.525, 1036.615, 1036.801, 1065.275, and 1065.610.

3. In 40 CFR, Part 86, subsection A.23.A.1.4 and Part 1036, section 1036.30 have been revised to reflect the current name of the ARB division (formerly named the Mobile Source Operations Division) that will process the certification reports.

4. In 40 CFR, Part 1036, section 1036.135 has been modified to provide manufacturers additional lead-time, until January 1, 2015, to produce engine labels, instead of requiring the labels to be used immediately after the regulation becomes effective.

5. In 40 CFR, Part 1036, section 1036.801B, in the definition of “Manufacturer,” the incorrect spelling of the word “manufactures” was corrected.
C. California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles

1. The existing “NOTE” section was modified by adding adopted or amended dates for the referenced test procedures. The originally proposed “NOTE” section was deleted since it is unnecessary and duplicative.

2. The referenced dates of various Phase 1 regulatory sections of the CFR have been updated to reflect the dates of Final Rule publication in the Federal Register, rather than the originally proposed effective dates of the Final Rule. For the CFR sections of the original federal Phase 1 GHG regulations, the updated date is September 15, 2011, instead of the effective date of November 14, 2011. The sections updated are 40 CFR sections 86.016-1, 86.012-2, 1036.1, 1036.2, 1036.10, 1036.15, 1036.30, 1036.100, 1036.108, 1036.115, 1036.130, 1036.135, 1036.140, 1036.210, 1036.230, 1036.235, 1036.241, 1036.250, 1036.255, 1036.401, 1036.501, 1036.530, 1036.601, 1036.610, 1036.625, 1036.701, 1036.705, 1036.710, 1036.715, 1036.720, 1036.725, 1036.730, 1036.735, 1036.740, 1036.745, 1036.750, 1036.801, 1036.805, 1036.810, 1036.815, 1036.820, 1036.825, 1065.1, 1065.15, 1065.20, 1065.125, 1065.140, 1065.170, 1065.190, 1065.205, 1065.220, 1065.225, 1065.250, 1065.260, 1065.265, 1065.267, 1065.270, 1065.272, and 1065.602. Moreover, for the technical amendments of the federal Phase 1 GHG regulations, the section modified date is June 17, 2013, instead of the originally proposed August 16, 2013. The sections updated with the June 17, 2013, date are: 40 CFR sections 86.007-23, 1036.5, 1036.150, 1036.205, 1036.225, 1036.525, 1036.615, 1036.801, 1065.275, and 1065.610.

3. In 40 CFR, Part 1036, section 1036.30 has been revised to reflect the current name of the ARB division (formerly named the Mobile Source Operations Division) that will process the certification reports.

4. In 40 CFR, Part 1036, section 1036.135 has been modified to provide manufacturers additional lead-time, until January 1, 2015, to produce engine labels, instead of requiring the labels to be used immediately after the regulation becomes effective.

5. In 40 CFR, Part 1036, section 1036.801B, in the definition of “Manufacturer,” the incorrect spelling of the word “manufactures” was corrected.

D. California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles

1. In the “NOTE” section, the referenced section of title 17 was corrected to reference section 95663(c) instead of 95662(c).

2. The referenced dates of various Phase 1 regulatory sections of the CFR have been updated to reflect the dates of Final Rule publication in the Federal Register, rather than the originally proposed effective dates of the Final Rule. For the CFR sections of the original federal Phase 1 GHG regulations, the updated date is September 15, 2011, instead of the effective date of November 14, 2011; the dates
updated are in the introductory paragraph to the test procedures (p. 1) and 40 CFR, section 1037.801. Moreover, for the Direct Final Rule of technical amendments to the federal Phase 1 GHG regulations, the modified date is June 17, 2013, instead of the originally proposed effective date of August 16, 2013. The sections updated with the June 17, 2013, date are 40 CFR, sections 1037.15, 1037.115, 1037.135, 1037.201, 1037.230, 1037.501, 1037.520, 1037.525, 1037.550, 1037.615, 1037.620, 1037.660, 1037.745, 1037.801, 1037.805, 1037.810, and 1066.310. Finally, the U.S. EPA issued a correction of 40 CFR, section 1037.104 in the Federal Register dated September 12, 2013. Thus, the modified date referenced for 40 CFR, section 1037.104 in these test procedures is September 12, 2013.

3. In 40 CFR, Part 1037, section 1037.135, has been modified to provide manufacturers additional lead-time, until January 1, 2015, to produce vehicle labels, instead of requiring the labels to be used immediately after the regulation becomes effective.

4. In 40 CFR, Part 1037, section 1037.801B in the definition of “Manufacturer,” the incorrect spelling of the word “manufactures” was corrected.

**Tractor-Trailer GHG Regulation**

At the hearing, the Board adopted Resolution 13-51 that covered the proposed amendments to title 17, CCR, sections 95300, 95301, 95302, 95303, and 95305 that were initially proposed by staff and described in the Notice of Public Hearing (45-Day Public Notice) and Staff Report, which were initially published on October 23, 2013. Modifications were suggested by staff in a document entitled “Staff’s Suggested Modifications to the Tractor-Trailer Greenhouse Gas (GHG) Regulation” that was distributed at the hearing and that was Attachment B to the Resolution. Staff suggested three modifications to the Tractor-Trailer GHG Regulation:

- **Streamline the Trailer Aerodynamic Equipment Compliance (TAEC) delay process so that owners of trailers that cannot be retrofitted with existing aerodynamic equipment do not have to reapply for the delay each year, but rather may continue to use such trailers until they are notified by ARB staff that technologies are available for their trailer configuration. Reapplication for the TAEC delay would only be required if the owner wanted to present evidence that the recommended technology cannot be used on their trailer.**

- **Provide a 3 month temporary exemption (grace period) from the requirements of the regulation for recently manufactured 53-foot or longer box trailers, that would reduce the burden placed on trailer manufacturers, particularly high volume manufacturers, to apply for individual exemptions for each trailer passing through California, even those not destined to operate in California.**

- **Clarify that the TAEC delay provisions apply to 2010 and older trailers as well as 2011 and newer trailers.**
In accordance with Government Code section 11346.8, the Board directed the Executive Officer to adopt the proposed amendments to title 17, CCR, sections 95300, 95301, 95302, 95303, and 95305, with the modifications set forth in Attachment B to Resolution 13-51, after making them and any additional supporting documents and information available to the public for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Summary of Proposed Modifications to the Tractor-Trailer GHG Regulation

Attachment B to this notice shows the proposed 15-day modifications to title 17, CCR, section 95305. All of these modifications were described in Attachment B to Resolution 13-51, and were presented at the hearing and approved by the Board. The following is a summary of the proposed modifications and staff’s rationale for making them.

A. Exemptions - Title 17, CCR, Section 95305

1. Sections (i)(2) through (i)(5) were renumbered to accommodate the deletion of existing sections and the addition of new sections.

2. Prior section (i)(2) that defined the compliance period for trailers identified in a TAEC delay as being one year, was deleted, and replaced with new section (i)(4)(C), which provides that the TAEC delay remains 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.

3. The response and notification process for obtaining a TAEC delay described in renumbered section (i)(4) was amended to clarify the review process and the term of the TAEC delay. As clarified in (i)(4)(A) and (B), after an application for a TAEC delay is received by the Executive Officer, the Executive Officer will review the existing list of SmartWay verified aerodynamic technologies for trailers. If a SmartWay verified aerodynamic technology that meets the requirements of the regulation can be installed, the TAEC delay application for the trailer would be denied. However, if the Executive Officer determines that a SmartWay verified aerodynamic technology cannot be installed, the application for the TAEC delay will be approved. As proposed in (i)(4)(C), the TAEC delay would be in effect indefinitely until such time as the Executive Officer determines during periodic review of SmartWay verified aerodynamic technologies that a newly verified technology exists that can be installed on the trailer. Once notified of the Executive Officer’s determination, the applicant would be required to install the aerodynamic technology on the trailer within one year of notification.
4. References were added to renumbered section (i)(2)(B)(4) to clarify that the aerodynamic technology requirements of trailers include not only 2011 and newer trailers, but also include trailers manufactured before 2011. This change is necessary since the TAEC delay applies to all trailers, not just 2011 and newer trailers.

5. Former section (i)(6) was deleted. It required an applicant to request an extension to an approved TAEC delay no sooner than 30 days prior to its annual expiration date. Extension applications would no longer be needed because the TAEC delay would remain in effect until one year from when the applicant is notified by the Executive Officer that a suitable technology is available for their trailer.

6. New section (n) was added, exempting all new affected box trailers from the requirements of the regulation for a period of three months from their date of manufacture. Without this proposed change, trailer manufacturers must apply to the Board for individual Transfer of Ownership Passes for each new trailer that enters California, even those that are destined for customers outside of California. Staff received comments that this process is burdensome and time-consuming, especially for high volume trailer manufacturers. The three month exemption would reduce the burden on trailer manufacturers, by providing a “grace period” for newly manufactured trailers.

**Optional NOx Emission Standards**

At the hearing, the Board adopted Resolution 13-52, that covered the proposed amendments to title 13, CCR, section 1956.8, to the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles,” last amended April 18, 2013, and to the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles,” last amended April 18, 2013, that were initially proposed by staff and described in the Notice of Public Hearing (45-Day Public Notice) and Staff Report, which were initially published on October 23, 2013. Modifications were suggested by staff in a document entitled “Staff’s Suggested Modifications to the Original Proposal” that was distributed at the hearing and that was Attachment D to the Resolution.

Staff’s suggested modification was that the on-board diagnostic (OBD) requirements applicable to 2015 and later model year heavy-duty diesel and heavy-duty otto-cycle engines certified to the proposed optional NOx emission standards be the same as the OBD requirements applicable to other certified heavy-duty engines and vehicles (title 13, CCR, section 1971.1), with the exception of the NOx emission threshold malfunction criteria for all applicable monitors, in which case a malfunction criterion of 0.4 gram per brake-horsepower hour (g/bhp-hr) NOx shall be used (i.e., the OBD system is required to detect a malfunction before NOx emissions exceed 0.4 g/bhp-hr). Without such a change, meeting the existing OBD requirements would be very challenging and likely create a significant disincentive for manufacturers to certify to the optional NOx emission standards.
In accordance with Government Code section 11346.8, the Board directed the Executive Officer to adopt the proposed amendments to title 13, CCR, section 1956.8, to the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles,” last amended April 18, 2013, and to the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles,” last amended April 18, 2013, with the modifications set forth in Attachment D to Resolution 13-52, after making them and any additional supporting documents and information available to the public for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Summary of Proposed Modifications to the Optional NOx Emission Standards

Attachment C-1 to this notice shows the proposed 15-day modifications to title 13, CCR, section 1956.8. Attachment C-2 to this notice shows the proposed 15-day modifications to “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines,” last amended April 18, 2013. Attachment C-3 to this notice shows the proposed 15-day modifications to “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Cycle Engines,” last amended April 18, 2013.

The following is a summary of the proposed modifications and staff’s rationale for making them.

A. Title 13, CCR, Section 1956.8

1. Section 1956.8(a)(2)(A) was amended by modifying footnote “O” of the “Exhaust Emission Standards for 2004 and Subsequent Model Heavy-Duty Engines, and Optional, Reduced Emission Standards for 2002 and Subsequent Model Heavy-Duty Engines Produced Beginning October 1, 2002, Other than Urban Bus Model-Year Engines Produced From October 1, 2002 Through 2006” in response to stakeholder 45-day comments regarding the OBD requirements for engine manufacturers that elect to produce optional low NOx emission engines. In addition, a parallel modification was made to footnote “I” of the “California Emission Standards for 2005 and Subsequent Model Heavy-Duty Otto-Cycle Engines” in section (c)(1)(B). Staff’s proposed 15-day change would maintain the current OBD stringency level for the mandatory 0.20 g/bhp-hr standard regardless of the optional low NOx standard to which the engine is certified. Without such a change, meeting the OBD requirements would be very challenging for manufacturers and likely create a significant disincentive for them to produce optional low NOx engines at this time. The footnote was modified to require applicable OBD system monitors to detect a malfunction before NOx emissions exceed 0.4 g/bhp-hr.
This amendment was described in Attachment D to Resolution 13-52, presented at the hearing and approved by the Board.

2. The following statement was inserted in footnote “N” of the “Exhaust Emission Standards for 2004 and Subsequent Model Heavy-Duty Engines, and Optional, Reduced Emission Standards for 2002 and Subsequent Model Heavy-Duty Engines Produced Beginning October 1, 2002, Other than Urban Bus Model-Year Engines Produced From October 1, 2002 Through 2006”, in section (a)(2)(A): “A manufacturer may not include an engine family certified to the optional NOx emissions standards in the ABT programs for NOx but may include it for particulates.” In addition, the statement, “ABT does not apply to optional low NOx emission standards,” was deleted from footnote “F” of the “California Emission Standards for 2005 and Subsequent Model Heavy-Duty Otto-Cycle Engines” in section (c)(1)(B), and instead, the following statement was inserted in footnote “H” of the table: “A manufacturer may not include an engine family certified to the optional NOx emission standards in the ABT programs for NOx but may include it for NMHC.” This change was developed subsequent to the hearing to address the concern that not allowing manufacturers to generate averaging, banking and trading (ABT) credits with engines certified to optional NOx standards would provide a disincentive for manufacturers to choose to certify to the optional NOx standards. Staff is maintaining the restriction on generating NOx ABT credits in order to preserve the NOx emission benefits of the proposed optional standards, but this change will allow these engines to generate ABT credits for other pollutants.

3. Several footnotes were corrected in the table of “California Emission Standards for 2005 and Subsequent Model Heavy-Duty Otto-Cycle Engines” in section (c)(1)(B). First, the originally-proposed 45-day addition of footnotes “D,F” to “2005 through 2007, SULEV, NMHC+NOx” was deleted, because these footnotes do not apply to these standards. Secondly, footnote “I” was added to “2015 and subsequent” because the OBD requirements correctly apply to all the emission standards applicable to these engines and not just NOx standards. Lastly, footnotes “H,I” were deleted from the “2015 and subsequent, NOx” standards, because these footnotes to the NOx standards are unnecessary.

B. Proposed Amendments to California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines.

1. Section 10.B.1. In the table “California Emission Standards for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines,” footnote “F” was amended by removing the statement “ABT does not apply to optional low NOx emission standard engines.” This statement was replaced in footnote “I” with “A manufacturer may not include an engine family certified to the optional NOx emissions standards in the ABT programs for NOx but may include it for NMHC.” Section 15.B.1 was amended by removing the statement “Optional low NOx engines shall not be used to generate credits in the ABT program.” This statement was replaced with “A manufacturer may not include an engine family certified to the optional NOx emissions standards in the
ABT programs for NOx but may include it for NMHC.” These changes were developed subsequent to the hearing to address the concern that not allowing manufacturers to generate ABT credits with engines certified to optional NOx standards would provide a disincentive for manufacturers to choose to certify to the optional NOx standards. Staff is maintaining the restriction on generating NOx ABT credits in order to preserve the NOx emission benefits of the proposed optional standards, but this change will allow these engines to generate ABT credits for NMHC.

C. Proposed Amendments to California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles

1. Section 15.B.2 was amended by removing the statement “Optional low NOx engines shall not be used to generate credits in the ABT program.” This statement was replaced with “A manufacturer may not include an engine family certified to the optional NOx emissions standards in the ABT programs for NOx but may include it for particulates.” This change was developed subsequent to the hearing to address the concern that not allowing manufacturers to generate ABT credits with engines certified to optional NOx standards would provide a disincentive for manufacturers to choose to certify to the optional NOx standards. Staff is maintaining the restriction on generating NOx ABT credits in order to preserve the NOx emission benefits of the proposed optional standards, but this change will allow these engines to generate ABT credits for particulates.

Idling ATCM

At the hearing, the Board adopted Resolution 13-53 that covered the originally proposed amendments to title 13, CCR, section 2485 that were initially proposed by staff and described in the Notice of Public Hearing (45-Day Public Notice) and Staff Report, which were initially published on October 23, 2013. During the hearing, the Board proposed that staff modify the existing definition of “restricted area” to also explicitly include “hospitals,” “senior care facilities,” and “child care facilities.” Staff has included that proposal in the proposed 15-day modifications to title 13, CCR section 2485.

In addition, the Board queried staff regarding how the amendments would affect the enforcement provisions of the Idling ATCM, and specifically asked how ARB enforcement staff will determine the party that is ultimately responsible for violations. Staff stated it would review the proposed amendments to verify that the amendments provide ARB the ability to also impose liability on other parties, including vehicle owners, and would, if needed, propose clarifying modifications.

Staff has reviewed the proposed amendments and determined that no additional modifications to the enforcement provisions are necessary. As discussed in the Staff Report, the proposed amendments would extend the applicability of the Idling ATCM from the driver to also include vehicle owners and motor carriers that dispatch affected vehicles.
Staff’s rationale for proposing this provision is to improve the compliance rate of the Idling ATCM, given that ARB inspectors currently cannot identify the vehicle driver when they issue citations (e.g., because the drivers are sleeping in closed sleeper cab tractors or are not in the tractors when the citations are issued).

The amendments clearly specify that the Idling ATCM applies to parties other than the vehicle driver, including vehicle owners and motor carriers that dispatch affected vehicles. ARB anticipates that its enforcement staff will investigate open citations on a case-by-case basis and depending on the information gathered in each specific case, will determine which party is ultimately responsible for settling the citation. This approach could result in ARB finding one or more parties responsible for violation of the rule. However, even if ARB determines that more than one party is responsible for a violation, it would close the citation once the citation has been settled by any one of those parties. Based on staff’s evaluation of the proposed amendments it has determined that there is no ambiguity in the proposed regulatory text that would prevent enforcement from approaching each case in this manner, or that would necessitate modifying the regulation.

In accordance with Government Code section 11346.8, the Board directed the Executive Officer to adopt the proposed amendments to title 13, CCR, section 2485, after making them and any additional supporting documents and information available to the public for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Summary of Proposed Modifications to the Idling ATCM

Attachment D to this notice shows the proposed 15-day modifications to title 13, CCR, section 2485. The following is a summary of the proposed modifications and staff’s rationale for making them.

A. Title 13, CCR, Section 2485

1. Section (h)(23) of the current Idling ATCM restricts diesel-fueled commercial motor vehicles from either idling their main engines or operating a diesel-fueled auxiliary power source longer than five minutes when they are located within 100 feet of a “restricted area,” which is currently defined as “any real property zoned for individual or multifamily housing units that has one or more of such units on it.” Staff initially proposed expanding the definition of “restricted area” to include schools, hotels and motels, in order to provide those members of the public who attend schools, or work or reside at hotels and motels additional protection from exposure to diesel particulate matter and other toxic air contaminants, and the associated potential cancer risks and other adverse health effects associated with diesel emissions. At the Board’s
December 12, 2013 public meeting to consider the proposed amendments to the existing Diesel-Fueled Commercial Motor Vehicle Idling Rule, a Board member proposed also including hospitals, senior care facilities and child care facilities to the existing definition of “restricted area.” Because the members of the public that are employed at or that utilize such facilities would also benefit from reduced exposure to diesel particulate matter and other toxic air contaminants, and the associated potential cancer risks and other adverse health effects associated with diesel emissions, staff is therefore proposing to include those categories of facilities in the definition of “restricted area” in newly renumbered section (h)(24).

2. New section (h)(5) is added to define “child care facility” as a facility that meets the definition of “child care facility” in Health and Safety Code section 1596.750. That section defines “child day care facility” as “a facility that provides nonmedical care to children under 18 years of age in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual on less than a 24-hour basis. “Child day care facility” includes day care centers, employer-sponsored child care centers, and family day care homes.” “Day care centers” are defined in Health and Safety Code section 1596.76,1 “family day care homes” are defined in Health and Safety Code section 1596.782 and “employer-sponsored child care centers” are defined in Health and Safety Code section 1596.771.3

3. New section (h)(26) has been added, defining “senior care facility” as a facility that meets the definition of “residential care facility for the elderly” in Health and Safety Code section 1569.2(k) and that is subject to the requirements of the California Residential Care Facilities for the Elderly Act (Health and Safety Code sections 1569 to 1569.889).

The California Residential Care Facilities for the Elderly Act (California Health and Safety Code sections 1569 to 1569.889) defines a “residential care facility for the elderly” as “a housing arrangement chosen voluntarily by persons 60 years of age or over, or their authorized representative, where varying levels and intensities of care and supervision, protective supervision, personal care, or health-related services are provided, based upon their varying needs, as determined in order to be admitted and to remain in the facility. Persons under 60 years of age with compatible needs may be allowed to be admitted or retained in a residential care facility for the elderly as specified in [Health and Safety Code section 1569.316]." (Health and Safety Code section 1569.2(k)).

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1 “Any child day care facility other than a family day care home, and includes infant centers, preschools, extended day care facilities, and school age child care centers.”
2 “[A] home that regularly provides care, protection, and supervision for 14 or fewer children, in the provider’s own home, for periods of less than 24 hours per day, while the parents or guardians are away, and is either a large family day care home or a small family day care home.”
3 “[A]ny child day care facility at the employer’s site of business operated directly or through a provider contract by any person or entity having one or more employees, and available exclusively for the care of children of that employer, and of the officers, managers, and employees of that employer.”
At the hearing, the Board adopted Resolution 13-54, that covered the originally proposed amendments to title 13, CCR, section 1956.8 and to the “California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes,” adopted October 24, 2002 that were initially proposed by staff and described in the Notice of Public Hearing (45-Day Public Notice) and Staff Report, which were initially published on October 23, 2013. Modifications were suggested by staff in a document entitled “Staff’s Suggested Modifications to the Proposed Regulation Order for Amendments to Heavy-Duty Hybrid-Electric Vehicle Certification Procedures” that was distributed at the hearing and that was Attachment B to the Resolution and in a separate document entitled “Staff’s Suggested Modifications to the Proposed Amendments to the California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric and Other Hybrid Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes” that was distributed at the hearing and that was Attachment C to the Resolution.

Staff’s suggested modifications as described in Attachments B and C to Resolution 13-54 included amending the title of the proposed amendments to include “Other Hybrid” vehicles and three minor technical amendments. In addition, at the hearing the Board directed staff to work with one manufacturer to address hydraulic hybrid vehicles in the test procedure and related calculation methodology. Additional modifications to the test procedure developed subsequent to the hearing have also been proposed by staff to improve clarity.

In accordance with Government Code section 11346.8, the Board directed the Executive Officer to adopt the proposed amendments to title 13, CCR, section 1956.8, and to the “California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes,” adopted October 24, 2002, with the modifications set forth in Attachments B and C to Resolution 13-54, after making them and any additional supporting documents and information available to the public for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Summary of Proposed Modifications to the Heavy-Duty Hybrid-Electric Vehicles Certification Procedure

Attachments E-1 and E-2 to this notice show the proposed 15-day modifications to title 13, CCR, section 1956.8 and to the “California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes,” adopted October 24, 2002, respectively. The following is a summary of the proposed modifications and staff’s rationale for making them.
A. Title 13, CCR, Section 1956.8

1. Staff is proposing to modify section 1956.8(d) by inserting “and Other Hybrid” in the title. This change, presented by staff at the hearing and approved by the Board, is necessary to maintain consistent titles throughout the regulation.

B. California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric and Other Hybrid Vehicles in the Urban Bus and Heavy-Duty Vehicle Classes

1. Section C. The title and introductory paragraph of this section were amended to explicitly include other hybrid vehicles into the certification requirements of the test procedures. This was the original intent of the amended procedures, and this change is necessary to clarify that all hybrid vehicles will need to comply with all the certification requirements as applicable and to avoid the possible misinterpretation that the stated certification requirements would only apply to hybrid-electric vehicles.

2. Subsection C.1 was amended to clarify the existing language that the Executive Order will identify the emission standard achieved by the hybrid-electric or other hybrid vehicles. This was the original intent of the amended procedures, and this change is necessary to clarify that all hybrid vehicles will be subjected to the provision stated in this subsection and to avoid the possible misinterpretation that the stated provision would only apply to hybrid-electric vehicles.

3. Subsection C.1.1 was amended to clarify that prior language requiring all “…2004 and subsequent model year HEBs shall, by model year, meet the exhaust emission standards or optional emission standards set forth in title 13, CCR, §1956.1” is specifically applicable to 2004 through 2006 model year hybrid electric urban transit buses (HEB). This is the intent of the existing language as the requirements for 2007 and subsequent model year hybrid vehicles are specified later in this section. In addition, this subsection was amended to explicitly include other types of hybrid vehicles into the provisions of sections D and E of the test procedures, similar to existing requirements for hybrid-electric vehicles. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements specified in sections D and E and to avoid the possible misinterpretation that the requirements specified in sections D and E would only apply to hybrid-electric vehicles.

4. Subsection C.5 was amended to explicitly include other hybrid vehicles into the emission warranty requirements described in this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to emission warranty as applicable and to avoid the possible misinterpretation that the specified emission warranty requirements would only apply to hybrid-electric vehicles.
5. Subsections C.7, C.7.1, C.7.2, C.7.3, and C.7.4 were amended to explicitly include other hybrid vehicles. Subsections C.7.1, C.7.2, C.7.3, and C.7.4 were amended to delete the word “electric” from “hybrid-electric drive system” to extend the labeling requirement to all hybrid vehicles and hybrid drive systems. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles and hybrid drive systems will need to comply with all requirements pertaining to labeling as applicable and to avoid the possible misinterpretation that the stated labeling requirements would only apply to hybrid-electric vehicles and hybrid-electric drive systems.

6. Subsection C.8. The language in this section was amended to explicitly include other hybrid drive systems into the engine service manual and equipment maintenance signal requirements described in this section. Specifically, the phrase “or other hybrid” was added to this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid drive systems will need to comply with all requirements pertaining to engine service manual and equipment maintenance signal as applicable and to avoid the possible misinterpretation that the stated requirements would only apply to hybrid-electric drive systems.

7. Subsection C.9. The language in this section was amended to explicitly include other hybrid drive systems into the rebuild provisions and recordkeeping requirement described in this section. Specifically, the phrase “or other hybrid” was added to this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid drive systems will need to comply with all requirements pertaining to rebuild provisions and recordkeeping as applicable and to avoid the possible misinterpretation that the stated requirements would only apply to hybrid-electric drive systems.

8. Subsection C.10.2. The language in this section was amended to explicitly include other hybrid drive systems into the identification and description requirements described in this section. Specifically, the phrase “or other hybrid” was added to this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid drive systems will need to comply with all requirements pertaining to identification and description as applicable and to avoid the possible misinterpretation that the stated requirements would only apply to hybrid-electric drive systems.

9. Subsection C.10.3. The language in this section was amended to explicitly include other hybrid drive systems into the description of any modification of hardware and/or software requirements described in this section. Specifically, the phrase “or other hybrid” was added to this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid drive systems will need to comply with all requirements pertaining to the description of any modification of hardware and/or software as applicable and to avoid the possible misinterpretation that the stated requirements would only apply to hybrid-electric drive systems.
10. Subsection C.10.7. The language in this section was amended to explicitly include other hybrid vehicles into the projected number of hybrid vehicles produced and delivered for sale in California requirements described in this section. Specifically, the phrase "or other hybrid" was added to this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to the projected number of hybrid vehicles produced and delivered for sale in California as applicable and to avoid the possible misinterpretation that the stated requirements would only apply to hybrid-electric vehicles.

11. Subsection C.10.9 was amended to explicitly require a method for determining the state of charge for other types of rechargeable energy storage system, similar to the existing requirement for determining the state of charge for batteries. This was the original intent of the amended procedures and this change is necessary to clarify that a method for determining the state of charge for any rechargeable energy storage system will need to be provided and to avoid the possible misinterpretation that the stated requirements would only apply to batteries.

12. Subsection C.12 was amended in response to the Board’s direction to clarify that the certification requirements in section C would also be applicable to hydraulic, turbine, flywheel, or fuel cell hybrid vehicles. In addition, existing language pertaining to the case-by-case consideration by the Executive Officer of certification application by manufacturers of hydraulic, turbine, flywheel, or fuel cell hybrid vehicles was deleted from section C, revised to reflect the criteria governing the Executive Officer’s approval and moved with modified language, to the more relevant section D.

13. Section D. The title and introductory paragraphs of this section were amended to explicitly include other hybrid vehicles into the test procedures described in this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to test procedures as applicable and to avoid the possible misinterpretation that the stated test procedures would only apply to hybrid-electric vehicles. The introductory paragraph of this section was also amended to add a qualifying phrase pertaining to the existing reference to SAE J2711, “Recommended Practice for Measuring Energy Consumption of Conventional and Hybrid Heavy-Duty Vehicles Using a Chassis Dynamometer” (Proposed Draft May 2012). Specifically, the phrase “Unless otherwise specified,” was added at the beginning of the introductory paragraph. This change is needed to clarify that, except where specified, the test procedures still incorporate by reference the document entitled, “Recommended Practice for Measuring Energy Consumption of Conventional and Hybrid Heavy-Duty Vehicles Using a Chassis Dynamometer” (Proposed Draft, May 2012).

The second paragraph of this section was amended to expressly allow manufacturers to request approval to use alternative test procedures or calculations to determine compliance with standards applicable to hybrid vehicles. ARB’s Executive Officer will approve or disapprove the use of such alternative test procedures and/or calculations.
based on his or her determination that such test procedure and/or calculations will
generate results that are sufficiently similar and equivalent in stringency to the results as
would be generated by the applicable test procedure and/or calculations, upon all
information submitted by a manufacturer and upon good engineering judgment. This
change is necessary to address alternative testing and calculation methodologies for
other hybrid technologies, including hydraulic hybrid technologies that are not explicitly
described in the test procedures.

14. Subsection D.1.1. Language was added to clarify that although fans may be
used for brake cooling during testing, such fans must be switched off for all key off
dwell periods. This change, presented by staff at the hearing and approved by the
Board, is necessary to ensure that brakes are not being cooled in a manner during
testing that is not consistent with normal in-use conditions.

Language was also added to clarify the use of a road speed-modulated cooling fan
instead of the previously specified fixed-speed cooling fan, and new language was
added requiring the fan that is used for engine cooling be placed in front of the vehicle,
and reference to SAE J2711, “Recommended Practice for Measuring Energy
Consumption, Fuel Economy, and Emissions of Conventional and Hybrid Medium-
Heavy-Duty Vehicles using a Chassis Dynamometer (Proposed Draft September 2013)
was also added. These changes are necessary to reflect the original intent of the test
procedures that vehicle cooling needs to be representative of actual on-the-road
operation and to ensure the engine is not being cooled in a manner during testing that is
not consistent with normal in-use conditions.

15. Subsection D.1.6.(i). Language was added allowing alternative methods for
battery connections to the hybrid system to be considered by the Executive Officer.
This change, presented by staff at the hearing and approved by the Board, is necessary
to accommodate possible differences in the design of a hybrid system and/or
rechargeable energy storage system that may, for example, require the use of multiple
measuring instruments to simultaneously access multiple battery connection points in
order to obtain accurate measurements.

16. Subsection D.2.2.2. Language was added to clarify that the preliminary run(s) of
the desired test cycle may also be conducted to precondition hybrid system components
and engine aftertreatment systems. This change, presented by staff at the hearing and
approved by the Board, is necessary to clarify that the preliminary test run(s) may be
performed to warm up various vehicle components and/or system(s) in preparation for
testing.

17. Subsection D.2.8.4. Existing language specifies measurement units of ampere-
hour and voltage to be used in the determination of the state of charge. Since these
measurement units are not applicable to all different types of rechargeable energy
storage systems, language was added to clarify the requirements for other unit
conventions to be used in the determination of the state-of-charge of other types of
rechargeable energy storage systems. This was the original intent of the amended
procedures and this change is necessary to clarify that appropriate measuring units are to be used in the determination of the state of charge for any rechargeable energy storage system.

18. Subsection D.3.1. The introductory paragraph of this subsection was amended to explicitly include other hybrid vehicles into the exhaust emissions and fuel economy calculation requirements described in this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to calculation methodologies as applicable and to avoid the possible misinterpretation that the stated calculation methodologies would only apply to hybrid-electric vehicles.

19. Subsection D.3.4. This section was modified to specify that the net energy change for other types of hybrid vehicles, including hydraulic hybrid vehicles that are not explicitly described in the test procedures, shall be proposed by manufacturers, and are subject to advance approval by the Executive Officer. The Executive Officer shall approve the use of proposed net energy change calculations based on his or her determination that such calculations accurately characterize the state of energy storage associated with the type of hybrid technology, and shall base his or her determination upon all information submitted by a manufacturer and upon good engineering judgment. This change is necessary to address a comment presented at the hearing requesting that staff incorporate a proposed specific equation to calculate the net energy change of a hydraulic hybrid system, similar to the equations shown in the test procedures for battery-electric, capacitor, and electromechanical flywheel hybrid systems. Staff reviewed the equation submitted by the commenter and concluded that the equation would only be applicable to a specific type of accumulator in a hydraulic hybrid system. Because there are a variety of accumulator designs that could potentially be used in a hydraulic hybrid system, and each would require a different equation to describe its net energy change, a multitude of equations would need to be included to fully cover the range of accumulators in a hydraulic hybrid system. Therefore, instead of including the equation provided by the commenter which would not be applicable to all possible hydraulic hybrid systems as a whole, staff is proposing to amend this section of the test procedures to describe the process to obtain an alternative calculation methodology that a manufacturer of a hybrid technology, including a hydraulic hybrid technology, could request the Executive Officer to approve.

20. Subsection D.3.5.1. This section was amended to delete the words "hydraulic" and "flywheel" from the introductory paragraph for "Total Fuel Energy." This change is necessary because the provisions of this section refer to the fuel consumed by the internal combustion engine during a test cycle and are not relevant to hydraulic and flywheel since these are energy storage systems.

21. Section E. The language in this section was amended to explicitly include other hybrid vehicles into the emission factor ratio calculation requirements described in this section. Specifically, the phrase "or other hybrid" was added to the first paragraph of this section. This was the original intent of the amended procedures and this change is
necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to emission factor ratio calculation methodologies as applicable and to avoid the possible misinterpretation that the stated emission factor ratio calculation methodologies would only apply to hybrid-electric vehicles.

22. Subsection E.1. The language in this section was amended to explicitly include other hybrid vehicles into the emission factor calculation requirements described in this section. Specifically, the phrase “or other hybrid” was added to the last paragraph of this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to emission factor calculation methodologies as applicable and to avoid the possible misinterpretation that the stated emission factor calculation methodologies would only apply to hybrid-electric vehicles.

23. Subsection E.2. The language in this section was amended to explicitly include other hybrid vehicles into the emission factor ratio calculation requirements described in this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to emission factor ratio calculation methodologies as applicable and to avoid the possible misinterpretation that the stated emission factor ratio calculation methodologies would only apply to hybrid-electric vehicles.

24. Subsection E.3. The language in this section was amended to explicitly include other hybrid vehicles into the application of emission factor ratio for certification requirements described in this section. This was the original intent of the amended procedures and this change is necessary to clarify that all hybrid vehicles will need to comply with all requirements pertaining to the application of emission factor ratio for certification as applicable and to avoid the possible misinterpretation that the stated requirements would only apply to hybrid-electric vehicles.

Supporting Documents and Information

In accordance with Government Code section 11347.1, staff has added to the rulemaking record the following documents that support the proposed action:


The documents listed above in Attachments F-1 through F-3 reflect amendments to the federal Phase 1 GHG regulation that were enacted after the federal Phase 1 GHG regulation became effective on November 14, 2011.

4. ARB’s Staff Report on Proposed Revisions to the PM2.5 and Ozone State Implementation Plans for the South Coast Air Basin, released January 13, 2013, approved January 25, 2013, which can be accessed at: [http://www.arb.ca.gov/planning/sip/planarea/2012scaqmp_final_staff_report.pdf](http://www.arb.ca.gov/planning/sip/planarea/2012scaqmp_final_staff_report.pdf). This document is appended to this notice as Attachment F-4.

5. US EPA’s final approval of the South Coast’s 2007 SIP plan, which can be accessed at: [http://www.gpo.gov/fdsys/pkg/FR-2012-03-01/pdf/2012-4673.pdf](http://www.gpo.gov/fdsys/pkg/FR-2012-03-01/pdf/2012-4673.pdf). This document is appended to this notice as Attachment F-5.

6. ARB staff report on the “ozone weekend effect”, which can be accessed at: [http://www.arb.ca.gov/research/weekendeffect/arb-final/web-executive-summary.pdf](http://www.arb.ca.gov/research/weekendeffect/arb-final/web-executive-summary.pdf). This document is appended to this notice as Attachment F-6.


8. Notice of October 8, 2013 public workshop to update the EMFAC model, which can be accessed at: [http://www.arb.ca.gov/msei/emfac2013_oct_workshop_meeting_notice_final-agenda.doc](http://www.arb.ca.gov/msei/emfac2013_oct_workshop_meeting_notice_final-agenda.doc). This document is appended to this notice as Attachment F-8.

Attachments F-4 through F-8 are the technical, theoretical or empirical studies, reports, or similar documents that the ARB relied upon in responding to comments submitted during the 45-day comment period for the proposed Optional Reduced Emission Standards for Heavy-Duty Engines and that raise significant environmental issues. Attachments F-4 through F-8 were identified in Attachment E to Resolution 13-52.

9. SAE Recommended Practice (SAE, 2013) Society of Automotive Engineers (SAE) J2711, “Recommended Practice for Measuring Energy Consumption, Fuel Economy, and Emissions of Conventional and Hybrid Medium-/Heavy-Duty Vehicles using a Chassis Dynamometer” (Proposed Draft September 2013). This document is appended to this notice as Attachment F-9.
**Internet Access**

The resolutions and all other regulatory documents for the rulemakings are available online at the following ARB website:  

**Agency Contact Persons**

Inquiries concerning the substance of the proposed regulations may be directed to the designated agency contact persons, (Phase 1 GHG and Optional Low NOx Standards) Ms. Kim Heroy-Rogalski at (916) 327-2200, (Tractor-Trailer GHG and Idling Airborne Toxic Control Measure), Mr. Stephan Lemieux at (626) 450-6162, or (Hybrid Certification Procedures), Mr. John Kato at (916) 322-2891.

**Submittal of Public Comments**

Written comments will only be accepted on the modifications identified in this notice and may be submitted by postal mail or electronic mail submittal as follows:

Postal mail: Clerk of the Board, Air Resources Board  
1001 I Street, Sacramento, California 95814

Electronic submittal: [http://www.arb.ca.gov/lispub/comm/bclist.php](http://www.arb.ca.gov/lispub/comm/bclist.php)

Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

In order to be considered by the Executive Officer, comments must be directed to ARB in one of the two forms described above and received by ARB by 5:00 p.m., on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations shall be considered by the Executive Officer.

If you need this document in an alternate format or another language, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 no later than five (5) business days from the release date of this notice. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Si necesita este documento en un formato alterno u otro idioma, por favor llame a la oficina del Secretario del Consejo de Recursos Atmosféricos al (916) 322-5594 o envíe un fax al (916) 322-3928 no menos de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso. Para el Servicio Telefónico de California para Personas con Problemas Auditivos, ó de teléfonos TDD pueden marcar al 711.

Attachments