State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text

PUBLIC HEARING TO CONSIDER AMENDMENTS TO CALIFORNIA'S SMALL OFF-ROAD ENGINE AND TIER 4 OFF-ROAD COMPRESSION-IGNITION ENGINE REGULATIONS AND TEST PROCEDURES; AND AMENDMENTS TO THE EXHAUST EMISSION CERTIFICATION TEST FUEL FOR OFF-ROAD SPARK-IGNITION ENGINES, EQUIPMENT, AND VEHICLES

Public Hearing Date: December 16, 2011
Public Availability Date: March 22, 2012
Deadline for Public Comment: April 10, 2012

At the December 16, 2011, public hearing, the Air Resources Board (ARB or Board) considered and approved the amendments to ARB's off-road new engine regulations.

The amendments, overall, provide better harmonization with federal certification and exhaust-emission testing requirements for the small off-road engine (SORE) and tier 4 off-road compression-ignition (ORCI) engine regulations and associated test procedures. The amendments create a more efficient certification process for engine and equipment manufacturers by removing the burden to perform duplicative testing for California and federal certification. The amendments to the tier 4 ORCI engine regulations also provide for more descriptive labeling requirements, which will facilitate the implementation and enforcement of ARB's various in-use programs in California.

Additionally, the Board approved modifications to the exhaust-emission certification test fuel requirements used by California's off-road spark-ignition, gasoline-fueled categories including large spark-ignition (LSI) engines, SORE, spark-ignition marine engines (SIME), and off-highway recreational vehicles (OHRV). These amended requirements require a ten-percent ethanol-blend of gasoline, which would be the same as the on-road motor vehicle test fuel requirement that was approved by the Board on January 27, 2012, or other fuel blends approved by ARB as appropriate for use in off-road categories.

The Board-approved amendments to the California Code of Regulations, title 13, (13 CCR) are as follows:

<u>Small Off-Road Engines</u> sections 2403 and 2407; and to the following document as incorporated by reference therein: "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines," as adopted July 26, 2004, and as last amended February 24, 2010; and the following documents incorporated by reference therein: "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1054)";

and “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065)”; and

Off-Road Compression-Ignition Engines sections 2421, 2423, 2424, 2425, 2425.1, 2426, and 2427; and to the following document as incorporated by reference therein: “California Exhaust Emission Standards and Test Procedures for New 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C,” adopted October 20, 2005; and to the following documents incorporated by reference therein: “California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-D,” adopted October 20, 2005; and “California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-F,” adopted October 20, 2005; and adoption of the following document incorporated by reference therein: “California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-E”; and

Off-Road Large Spark-Ignition Engines sections 2433, 2783, and 2784; and to the following documents incorporated by reference therein: “California Exhaust and Evaporative Emission Standards and Test Procedures for New 2010 and Later Off-Road Large Spark-Ignition Engines (2010 and Later Test Procedure 1048),” as adopted March 2, 2007, and as last amended November 21, 2008; and “California Exhaust and Evaporative Emission Standards and Test Procedures for New 2007 and Later Off-Road Large Spark-Ignition Engines (Test Procedures 1065 and 1068),” as adopted March 2, 2007; and

Off-Highway Recreational Vehicles section 2412; and to the following document incorporated by reference therein: “California Exhaust Emission Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines," as adopted May 26, 1995, and as last amended June 1, 2007; and

Spark-Ignition Marine Engines section 2447; and to the following document incorporated by reference therein: “California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines,” as adopted October 21, 1999, and as last amended June 5, 2009.

At the hearing, the staff presented, and the Board approved modifications to the regulations originally proposed in the Staff Report released on October 26, 2011, in response to comments received after the Staff Report was published. The regulatory sections affected by the approved modifications are sections 2403, 2404, 2407, 2412, 2433, 2783, and 2784, title 13, CCR and the test procedures incorporated by reference in title 13. The following explains and identifies the modifications by section number.

Summary of Proposed Modifications

Title 13, California Code of Regulations

Modifications to the Regulation Order for Small Off-Road Engines

§2403. Exhaust Emission Standards and Test Procedures–Small Off-Road Engines

Paragraph (b)(2)(B) was revised to correct a clerical error in which staff incorrectly cited the titles of the newly incorporated "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine Testing Procedures (Part 1054)," and the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065)."

Paragraph (d) was revised to correct a clerical error in which staff incorrectly cited the titles of the newly incorporated for "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine Testing Procedures (Part 1054)," and the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065)."

§2404. Emission Control Labels and Consumer Information - 1995 and Later Small Off-Road Engines.

Paragraph (c)(4)(a) was revised to include the option for the engine label heading to read "EMISSION CONTROL INFORMATION" to ensure alignment with existing federal requirements.

§2407. New Engine Compliance and Production Line Testing–New Small Off-Road Engine Selection, Evaluation, and Enforcement Action.

Paragraph (a)(7) was revised to correct a clerical error in which staff incorrectly cited the titles of the newly incorporated "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine Testing Procedures (Part 1054)," and the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065)."

Modifications to the Regulation Order for New Off-Highway Recreational Vehicles and Engines

§2412. Emission Standards and Test Procedures – New Off-Highway Recreational Vehicles and Engines.

Paragraph (c)(2) was revised to correct a clerical error that sought a new date of amendment for the previously retired test procedure document "California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines." The last effective date of the document was also restored. Further, the paragraph was amended to specify that E10 test fuel is to be used for 2013 and later all-terrain vehicles utilizing the existing optional emission standards allowance. This was accomplished by referencing §1065.701, of the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065),"

Modifications to the Regulation Order for Large Spark-Ignition Engines

§2433. Emission Standards and Test Procedures–Off-Road Large Spark-Ignition Engines.

Paragraph (d)(1) was revised to correct a clerical error in which staff incorrectly cited the titles of the newly incorporated "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1054)," and the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065)."

Modifications to the Regulation Order for In-Use Compliance Requirements for Retrofits of Large Spark-Ignition Engines

§2783. Emissions Reduction Testing Requirements.

Paragraph (d)(2) was revised to allow the optional use of E10 for certification testing through the 2019 calendar year instead of through 2018 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Paragraph (d)(3) was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-Road Test Procedures was updated to reflect the official working title of the document. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

§2784. Durability Demonstration Requirements.

Paragraph (c)(2) was revised to allow the optional use of E10 for durability demonstration testing through the 2019 calendar year instead of through 2018 as originally proposed. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for durability demonstration testing.

Paragraph (c)(3) was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-Road Test Procedures was updated to reflect the official working title of the document. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

<u>Modifications to the Test Procedures, Parts 1054 and 1065, for Small Off-Road Engines</u>

§1054.101 What emission standards and requirements must my engines meet?

Paragraph (a)(1) of the SORE Test Procedures was revised to update the reference in footnote 3 of Table: "Exhaust Emission Standards for Spark-Ignition Engines" such that the footnote now cites 40 CFR Part 1054.101(a)(2)(ii) instead of the previous 40 CFR Part 90.103(a)(2)(ii).

§ 1054.105 What exhaust emission standards must my nonhandheld engines meet?

Paragraph (a) of the SORE Test Procedures was revised to provide better consistency in referencing the appropriate standards for all engines regardless of displacement. With this change, all standards will be referenced within the test procedures, rather than having engines with displacement greater than 80 cc referred to identical standards within the California Code of Regulations.

§ 1054.115 What other requirements apply?

Paragraph (c) of the SORE Test Procedures was revised to clarify the requirements for meeting emission standards at higher elevations based on engine displacement.

§1065.701 General requirements for test fuels.

Paragraph (a)(2) of the SORE Test Procedures was revised to allow the optional use of E10 for certification testing through the 2019 calendar year instead of through 2018 as originally proposed. This revision aligns with the

on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Paragraph (a)(3) of the SORE Test Procedures was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-Road Test Procedures was updated to reflect the official working title of the document. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Modifications to the Test Procedures, Parts 1065 and 1068, for 2007 and Later Model Year Large Spark-Ignition Engines

§1065.701 General requirements for test fuels.

Paragraph (a)(2) of the LSI Test Procedures was revised to allow the optional use of E10 for certification testing through the 2019 calendar year instead of through 2018 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Paragraph (a)(3) of the LSI Test Procedures was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-Road Test Procedures was updated to reflect the official working title of the document. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Modifications to the Test Procedures, Part 1048, for 2010 and Later Model Year Large Spark-Ignition Engines

§1048.101 What exhaust emission standards must my engines meet?

Paragraph (e)(2)(B) of the LSI Test Procedures was revised to allow the optional use of E10 for certification testing through the 2019 calendar year instead of through 2018 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012.

Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Paragraph (e)(2)(C) of the LSI Test Procedures was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-Road Test Procedures was updated to reflect the official working title of the document. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Modifications to the Test Procedures for New Off-Highway Recreational Vehicles and Engines

86.513 - 90 Fuel and engine lubricant specifications.

Paragraph (a)(1)(ii) of the OHRV Test Procedures was revised to allow the optional use of E10 for certification testing through the 2019 calendar year instead of through 2018 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Paragraph (a)(2) of the OHRV Test Procedures was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-road Test Procedures was updated to reflect the official working title of the document. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Modifications to the Test Procedures for Spark-Ignition Marine Engines

Part III. Emission Test Equipment Provisions.

44. Lubricating Oil and Test Fuel.

The title of paragraph (b)(1)(i) of the SIME Test Procedures was incorrectly cited in staff's original proposal and has been changed back to (b)(1)(A) to correspond with the numerating order of the existing document. Similarly, the reference to the reporting requirement of 14(b)(2)(vi) was incorrectly cited and has been replaced with the correct citation of 14(b)(2)(G). In addition to the numerating order, this reference was also out of sequence pointing to subparagraph (F) instead of the correct subparagraph (G).

The title of paragraph (b)(1)(ii) of the SIME Test Procedures was incorrectly cited in staff's original proposal and has been changed back to (b)(1)(B) to correspond with the numerating order of the existing document. Additionally, paragraph (b)(1)(B) was revised to allow the optional use of E10 for certification testing through the 2019 calendar year instead of through 2018 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

The title of paragraph (b)(2) of the SIME Test Procedures was incorrectly cited in staff's original proposal and has been changed to (b)(1)(C) to correspond with the numerating order of the existing document. Additionally, paragraph (b)(1)(C) was revised to require the use of E10 for certification testing beginning with the 2020 calendar year instead of 2019 as originally proposed. This revision aligns with the on-road requirements for certification fuels published by staff on October 28, 2011, and approved by the Board on January 27, 2012. The reference to the On-Road Test Procedures was updated to reflect the official working title of the document. Additional clarification was provided by citing 14(b)(2)(G), as already in paragraph (b)(1)(A), to reference existing reporting requirements. Further, this paragraph was amended, per the Board's direction, to allow other fuel-blends certified by ARB to be used for certification testing.

Modifications to the Summary & Rationale; SORE Test Procedures

Subpart H

§1065.701

The summary and rationale document was updated to include the revised E10

implementation dates and a discussion on the allowance of other ARB-certified test fuels.

Modifications to the Summary & Rationale; LSI and LSI Retrofit Test Procedures and Regulations

Subpart B

§1048.101 What exhaust emission standards must my engines meet?

The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB-certified test fuels.

Subpart H

§1065.701

The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB-certified test fuels.

§1065.710

The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB-certified test fuels.

13 CCR §2783

The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB-certified test fuels.

13 CCR §2784

The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB certified test fuels.

Modifications to the Summary & Rationale; OHRV Test Procedures

Subpart F

Section 86.513 - 90

> The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB-certified test fuels.

Modifications to the Summary & Rationale; SIME Test Procedures

Part III. Emission Test Equipment Provisions.

44. Lubricating Oil and Test Fuel.

> The summary and rationale document was updated to include the revised E10 implementation dates and a discussion on the allowance of other ARB-certified test fuels. Additionally, the document discusses the correction of clerical errors which had affected the numerating order of the affected paragraphs.

Staff has made several other non-substantive modifications throughout the regulations and test procedures to correct grammatical and typographical errors, correct references and citations, and improve the clarity of the regulations and test procedures.

Attached is a copy of Board Resolution 11-41 approving revised sections of title 13, California Code of Regulations, and the documents incorporated by reference therein: sections and subsections of 2403 and 2407; and "California Exhaust Emission Standards and Test Procedures for 2005-2012 Small Off-Road Engines," incorporated by reference in sections 2403(b)(2)(B), 2403(d), and 2407(a)(7); and "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, Engine-Testing Procedures (Part 1054)"; and "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, Engine-Testing Procedures (Part 1065)," incorporated by reference in sections 2403(b)(2)(B), 2403(d), and 2407(a)(7); sections and subsections of, 2421, 2423, 2424, 2425, 2425.1, 2426, and 2427; and "California Exhaust Emission Standards and Test Procedures for New 2008-2010 Tier 4 Off-Road Compression-Ignition Engines, Part 1-C," incorporated by reference in section 2421(a)(4)(A); and "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Parts 1-D, 1-E, and 1-F," incorporated by reference in section 2421(a)(4)(B); section and subsections of 2433; and "California Exhaust and Evaporative Emission Standards and Test Procedures For New 2010 and Later Off-Road Large Spark-Ignition Engines (2010 and Later Test Procedure 1048);" and "California Exhaust and Evaporative Emission Standards and Test Procedures For New 2007 and Later Off-Road Large Spark-Ignition Engines (Test Procedures 1065 and 1068)," incorporated by reference in section

2433(c);" and "California Exhaust Emission Standards and Test Procedures for 2005-2012 Small Off-Road Engines," incorporated by reference in sections 2433(d)(1); and "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, Engine-Testing Procedures (Part 1054);" and "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, Engine-Testing Procedures (Part 1065)," to be incorporated by reference in section 2433(d)(1); sections and subsections 2783 and 2784; and "California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," incorporated by reference in sections 2783(d)(3) and 2784(c)(3).

The regulatory documents for this rulemaking are available online at the following ARB internet site:

http://www.arb.ca.gov/regact/2011/soreci2011/soreci2011.htm

In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt amendments in the California Code of Regulations, title 13, sections 2403, 2404, 2407, 2412, 2433, 2783, and 2784, and sections of the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, Part 1054,” the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, Part 1065,” the “California Exhaust and Evaporative Emission Standards and Test Procedures for New 2007 and Later Off-Road Large Spark-Ignition Engines, Parts 1065 and 1068,” the “California Exhaust and Evaporative Emission Standards and Test Procedures for New 2010 and Later Off-Road Large Spark-Ignition Engines, Part 1048,” the “California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines,” and the “California Exhaust Emission Standards and Test Procedures for 2001 and Later Spark-Ignition Marine Engines,” with such other conforming modifications as may be appropriate, after making the modified regulatory language available to the public for comment for a period of at least fifteen 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.

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

Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and oral 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

Appendices (16):

I - California Regulations for SMALL OFF-ROAD ENGINES
II - California Regulations for OFF-ROAD LARGE SPARK-IGNITION ENGINES
III - California Regulations for the verification procedure, warranty, and in-use compliance requirements for RETROFITS TO CONTROL EMISSIONS FROM OFF-ROAD LARGE SPARK-IGNITION ENGINES
IV - California Regulations for OFF-HIGHWAY RECREATIONAL VEHICLES AND ENGINES
V - California Exhaust Emission Standards and TEST PROCEDURES FOR NEW 2013 AND LATER SMALL OFF-ROAD ENGINES – PART 1054
VI - California Exhaust Emission Standards and TEST PROCEDURES FOR NEW 2013 AND LATER SMALL OFF-ROAD ENGINES – PART 1065
VII - California Exhaust and Evaporative Emission Standards and TEST PROCEDURES FOR NEW 2007 AND LATER OFF-ROAD LARGE SPARK-IGNITION ENGINES – PARTS 1065 & 1068
VIII - California Exhaust and Evaporative Emission Standards and TEST PROCEDURES FOR NEW 2010 AND LATER OFF-ROAD LARGE SPARK-IGNITION ENGINES – PART 1048
IX - California Exhaust Emissions Standards and TEST PROCEDURES FOR 1997 AND LATER OFF-HIGHWAY RECREATIONAL VEHICLES AND ENGINES

X	-	California Exhaust Emission Standards and TEST PROCEDURES FOR 2001 AND LATER SPARK-IGNITION MARINE ENGINES
XI	-	Summary and Rationale for Amendments to the SMALL OFF-ROAD ENGINE REGULATIONS AND TEST PROCEDURES
XII	-	Summary and Rationale for Amendments to the OFF-ROAD LARGE SPARK-IGNITION ENGINE REGULATIONS AND TEST PROCEDURES
XIII	-	Summary and Rationale for Amendments to the OFF-HIGHWAY RECREATIONAL VEHICLE AND ENGINE REGULATIONS AND TEST PROCEDURES
XIV	-	Summary and Rationale for Amendments to the SPARK-IGNITION MARINE ENGINE REGULATIONS AND TEST PROCEDURES
XV	-	Resolution 11-41
XVI	-	Staff's Suggested Modifications to the Original Proposal, as distributed at the December 16, 2011, Board Hearing (ATTACHMENT G)