

State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text

**PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CURRENT
SPARK-IGNITION MARINE ENGINE AND BOAT REGULATIONS**

Public Hearing Date: July 24, 2008
Public Availability Date: March 25, 2009
Deadline for Public Comment: April 9, 2009

At its July 24, 2008, public hearing, the Air Resources Board (ARB or the Board) approved the amendment to the California Code of Regulations, Title 13, (13 CCR) sections 2111, 2112, and Appendix A, within Chapter 2, Article 2.1, section 2139 within Chapter 2, Article 2.3, 13 CCR; section 2147 within Chapter 2, Article 2.4, 13 CCR; and sections 2440, 2441, 2442, 2443.1, 2443.2, 2443.3, 2444.1, 2444.2, and 2445, and the repeal of section 2448, within Chapter 9, Article 4.7, 13 CCR. The Board further approved amendments to the following documents incorporated by reference in section 2447, 13 CCR: "California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines," as last amended September 22, 2006, and in section 2474, 13 CCR: "Procedures for Exemption of Add-On and Modified Parts for Off-Road Categories," as adopted July 14, 2000.

The Board's approval provides relief to the small volume manufacturers of high performance sterndrive and inboard engines (those with rated power greater than 373 kilowatts) by allowing them to certify engines to less stringent exhaust standards than would have otherwise been required under the existing regulation (i.e., 5.0 grams per kilowatt-hour combined hydrocarbons and oxides of nitrogen (g/kW-hr HC+NO_x)). However, to preserve the emission benefits of the existing regulation, high performance engines must not exceed 16.0 g/kW-hr HC+NO_x and may only be installed in boats with enhanced evaporative control capability that includes activated carbon canisters. Large volume manufacturers of high performance engines must continue to comply with the catalyst-based 5.0 g/kW-hr HC+NO_x exhaust standard and must also ensure that their engines are installed in boats with enhanced evaporative control capability. The Board approved additional provisions allowing manufacturers greater flexibility in complying with these requirements. Additionally, the Board's approval requires manufacturers to limit emissions of carbon monoxide from all categories of spark-ignition marine engines and provides greater alignment with federal requirements for marine engines and boats recently adopted by the United States Environmental Protection Agency (U.S. EPA).

At the hearing, the staff presented, and the Board approved modifications to the regulations originally proposed in the Staff Report released on June 6, 2008, in response to comments received after the Staff Report was published. The regulatory sections affected by the approved modifications are sections 2441 and 2442, title 13,

CCR and the test procedures incorporated by reference in Title 13. The following explains and identifies the modifications by section number. Items for which the regulatory text proposed herein is not verbatim with the modified text approved by the Board carry the descriptor “new conforming modification.”

Summary of Proposed Modifications

TITLE 13, CALIFORNIA CODE OF REGULATIONS

§ 2441 – Definitions

The (a)(31) definition of “Intermediate Volume Manufacturer” was added to create a classification of sterndrive/inboard engine manufacturers wherein a small volume manufacturer could grow into new markets in limited numbers without having to invest the resources of a large volume manufacturer to comply with technology-forcing standards. All subsequent definitions were renumbered to accommodate this new addition.

The (a)(33) definition of “Large Volume Manufacturer” replaces the previous definition of “Large Volume Dual Category Manufacturer” to widen the scope of applicability by eliminating the condition that a conforming manufacturer must simultaneously produce both standard and high performance sterndrive/inboard engines. Additionally, the minimum number of engines produced for sale in California that define a large volume manufacturer was changed from 75 to 500 units annually to provide room for the new intermediate volume manufacturer classification.

The (a)(46) definition of “Nontrailerable Boat” was revised to clarify the consideration of length and width to be a logical disjunction rather than a logical conjunction. This results in a boat being classified as “nontrailerable” when either its length exceeds 8 meters or its width exceeds 2.6 meters, not only when both conditions have been met.

The (a)(53) definition of “Qualified Intermediate Volume Manufacturer” was added to identify a type of sterndrive or inboard engine manufacturer with a sufficient production volume of standard performance engines to be able to average emission levels with high performance engines to comply with the 5.0 g/kW-hr HC+NO_x standard. All subsequent definitions were renumbered to accommodate this new addition.

The (a)(54) definition of “Rebuild” or “Rebuilding” was revised to correctly reference the California Test Procedures instead of the “standard setting part” as the location for information on normally scheduled emission related maintenance during the useful life of an engine.

The (a)(59) definition of “Small Volume Manufacturer” was added to identify a type of sterndrive or inboard engine manufacturer that produces for sale no more than a combined total of 75 engines per year in California. All subsequent definitions were renumbered to accommodate this new addition.

The (a)(61) definition of “Spark-ignition marine engine” or “Spark-ignition propulsion marine engines” was re-titled to make evident the inclusion of spark-ignition propulsion marine engines as originally intended.

§ 2442 – Emission Standards

The Table 1.2 entry for outboard engines and personal watercraft under the “Model Year” heading was revised to indicate 2010 as the start date for compliance with the carbon monoxide standards.

Paragraph (b)(1) was revised to clarify that the standards in Table 2.1(a) are applicable to standard performance engines whereas the standards in Table 2.1(b) are applicable to high performance engines.

Footnote 8 to Table 2.1(a) was revised to reflect the modified definition of “large volume manufacturer” as it pertains to high performance engine manufacturers and to extend applicability of the footnote to the newly created category of qualified intermediate volume manufacturers.

Paragraph (b)(1)(B) was revised for grammatical clarity and to reflect the modified definition of “large volume manufacturer” as it pertains to high performance engine manufacturers and to extend applicability of the paragraph to the newly created category of qualified intermediate volume manufacturers.

A “Durability” column was reintroduced into Table 2.1(b) after it had been inadvertently omitted in the originally proposed regulatory amendments by staff during the bifurcation of Table 2.1 into subparts (a) and (b). The bifurcation of Table 2.1 aimed to more clearly distinguish between standard performance and high performance engine emission standards. The omission was obviously unintended as there was no precedent for eliminating or otherwise modifying the durability requirements for high performance engines nor was such a change addressed in staff’s initial statement of reasons. Furthermore, the paralleling warranty periods in § 2445.1(c)(3)(C) of the regulations for high performance engines remain unchanged from existing requirements and provide further evidence that the omission of the durability column in Table 2.1(b) was unintentional.

Subsequent to the board hearing, the values in the reinstated durability column of Table 2.1(b) described in the paragraph above were corrected to correspond with the previously existing regulation as was always intended. A formatting error in the suggested modifications proposed at the July 24, 2008, Board hearing (included as Appendix IV to this notice) resulted in truncated cells and incongruous deterioration values being displayed in the table. Again, the paralleling warranty periods in § 2445.1(c)(3)(C) of the regulations for high performance engines are cited as evidence that the values displayed at the Board Hearing in the reinstated durability column in Table 2.1(b) were unintentional and incorrect. Accordingly, there should be no surprise to affected stakeholders regarding this correction. New conforming modification.

The left-most subheading under the “HC+NO_x STANDARD” primary heading in Table 2.1(b) was revised to indicate reference to only small volume manufacturers and intermediate volume manufacturers with an insufficient production volume of standard performance engines versus high performance engines. This revision correlates to changes in the definitions for sales volume categorizations (i.e., small, intermediate, and large).

The right-most subheading under the “HC+NO_x STANDARD” primary heading in Table 2.1(b) was revised to reflect the modified definition of “large volume manufacturer” and also to apply to the newly created category of qualified intermediate volume manufacturers.

Footnote “c” was re-appended to Table 2.1(b) corresponding to the inadvertent omission of the “Durability” column in Table 2.1(b) in the originally proposed regulatory amendments (see third previous paragraph). All subsequent footnotes were relabeled and their applications re-sequenced to reflect this new insertion.

Footnote “e” to Table 2.1(b) was revised to reflect the modified definition of “large volume manufacturer” as it pertains to high performance engine manufacturers and to extend the applicability of the footnote to the newly created category of qualified intermediate volume manufacturers.

Paragraph (b)(2)(A) was revised to clarify that the required submittal of evidence regarding the sufficiency and conformity of the evaporative system design is to be provided by the engine manufacturer to the Executive Officer at the time of certification. This clarification should be apparent and is consistent with the intention of the requirements for high performance engine manufacturers as expressed in staff’s initial statement of reasons and should come as no surprise to affected stakeholders. New conforming modification.

Paragraph (b)(5) was revised to reflect the modified definition of “large volume manufacturer” as it pertains to high performance engine manufacturers and to extend applicability of the paragraph to the newly created category of qualified intermediate volume manufacturers. The paragraph was also restructured by incorporating both engine and boat manufacturer responsibilities into sub paragraph (A), which was previously specific to engine manufacturer responsibilities exclusively, and by the creation of a new compliance provision in sub paragraph (B), which was previously specific to boat manufacturer responsibilities exclusively.

Paragraph (b)(5)(A)1. replaces the paragraph previously designated as (b)(5)(A) and was revised to clarify that the required submittal of evidence regarding the sufficiency and conformity of the evaporative system design is to be provided by the engine manufacturer to the Executive Officer at the time of certification. This clarification should be apparent and is consistent with the intention of the requirements for high performance engine manufacturers as expressed in staff’s initial statement of reasons; it should come as no surprise to affected stakeholders. New conforming modification.

Paragraph (b)(5)(A)2. replaces the paragraph previously designated as (b)(5)(B) and modifies grammar.

Paragraph (b)(5)(B) was revised to grant large volume and/or qualified intermediate volume manufacturers of high performance engines the option to comply with the regulations using control measures other than those specifically identified in the regulations so long as the optional measures would 1) result in equivalent emissions reductions, 2) be readily verifiable and quantifiable, 3) be enforceable, and 4) not increase exhaust emissions above the standards. The optional control measures must also include fallback provisions for recouping lost emission benefits in the event the control measure cannot be fully implemented as planned. The Executive Officer is given the authority to rescind the certification of any affected engine families should the manufacturer of those families fail to implement the optional control measures as approved by the Executive Officer.

Paragraph (c) was updated by replacing the preapproved placeholder language with specific requirements and references for Not-To-Exceed (NTE) standards and test procedures for spark-ignition marine engines in alignment with those promulgated by the U.S. EPA on October 8, 2008, in 40 Code of Federal Regulations (CFR) 1045.107 and 40 CFR 1045.515.

Paragraph (e) was revised to correct a typographical error in cross referencing the standards section of the spark-ignition marine engine regulations to identify the scope of applicability for engines subject to the newly adopted replacement engine requirements. § 2422 was inadvertently cited, which refers to the off-road land based diesel requirements, whereas § 2442 was the obvious reference since it refers to spark-ignition marine engine standards. New conforming modification.

Paragraph (g)(1)(A) was revised to make evident that carbon monoxide standards would not become applicable until 2010 for jet boats powered by personal watercraft engines. This clarification minimizes the potential for confusing the commencement of carbon monoxide standards by reinforcing 2010 as the start date rather than simply relying on the reference to Table 1.2, which clearly, but indirectly, indicates 2010 as the first year in which standards are required. This clarification is consistent with the intentions expressed in staff's initial statement of reasons and should come as no surprise to affected stakeholders. New conforming modification.

Paragraph (g)(1)(B) was revised to correct a typographical error in which the term "sterndrive/outboard" was mistakenly used in place of the intended "sterndrive/inboard" term to preface the type of standards in § 2442(b) to which jet boats must comply. This error is obvious in that no precedent existed to create a new "sterndrive/outboard" category nor was such a definition addressed in staff's initial statement of reasons. Additionally, paragraph (g)(1)(B) was restructured into subparts 1. and 2. providing an option in 2. that would allow the replacement of an existing jet boat engine family in 2010 and 2011 with one that is certified at or below the emissions level of the existing family. There should be no surprise to affected stakeholders regarding these

modifications.

Paragraph (g)(1)(C) was revised to clarify the requirements for using a distinct engine family designation (i.e., not combined with personal watercraft engines) depending on when the engine family was first certified.

Paragraph (g)(4) was revised to reference § 2447 as the static point of incorporation of the Test Procedures instead of the dynamic reference at § 2441(a)(58)*, which must be continually updated whenever new definitions are appended to the regulations causing existing subsequent definitions to be renumbered. New conforming modification.

Paragraph (h) was revised to correct a typographical error in cross referencing the standards section of the spark-ignition marine engine regulations to identify the scope of applicability for engines subject to the newly adopted engine rebuilding provisions. § 2422 was inadvertently cited, which refers to the off-road land based diesel requirements, whereas § 2442 was the obvious reference since it refers to spark-ignition marine engine standards. New conforming modification.

§ 2444.2 – On-Board Engine Malfunction Detection System Requirements - Model Year 2007 and Later Spark-Ignition Sterndrive/Inboard Marine Engines

Paragraph (h) was updated to provide reference by name and date to the completed On-Board Diagnostics Marine (OBD-M) implementation guidelines as contained in the Society of Automotive Engineers (SAE) recommended practices document SAE J1939-05, published February 2008. This modification is a logical fulfillment of the existing paragraph, which contained language describing in general terms the future development and adoption of standardized specifications by ARB and the marine industry for the implementation of OBD-M. The revised language makes this requirement more specific by directing readers to the actual reference documents which are now final and available. The spark-ignition marine industry was actively involved in the development of SAE J1939-05; therefore, the incorporation of this document into the California spark-ignition marine regulations should come as no surprise to affected stakeholders. Furthermore, no other standardized specifications were under serious consideration by ARB, U.S. EPA, or the rest of industry with respect to the OBD-M requirements. SAE J1939-05 was officially incorporated by U.S. EPA on October 8, 2008, in part 1045.810, title 40, Code of Federal Regulations to define federal OBD-M standardization conventions. New conforming modification.

TEST PROCEDURES INCORPORATED BY REFERENCE

The same proposed modifications to the regulations as described above are also proposed for the corresponding test procedure provisions, and their descriptions are not

* The dynamic reference at § 2441(a)(58), which was cited in the Staff's Suggested Modifications to the Original Proposal, as distributed at the July 24, 2008, Board Hearing (Appendix IV of this document), was also incorrect and should have been § 2441(a)(65) because this is the only definition that refers to the incorporation of the Test Procedures.

repeated in this section. Only those changes specific to the test procedures, or for which the section designations differ between the regulations and Test Procedures are noted.

Part I - Emission Regulations for 2001 and Later New Spark-Ignition Marine Engines, General Provisions.

2. Definitions.

The definition of “Rebuild” or “Rebuilding” was revised to correctly reference the requirements of Part I, subsection 7. – Practices for Rebuilding Engines – of the Test Procedures instead of the circularly referenced “standard setting part” as the location for information on normally scheduled emission related maintenance during the useful life of an engine. New conforming modification.

8. Replacement Engines.

This subsection was revised to correct a typographical error in cross referencing the standards section of the spark-ignition marine engine regulations to identify the scope of applicability for engines subject to the newly adopted replacement engine requirements. § 2422 was inadvertently cited, which refers to the off-road land based diesel requirements, whereas § 2442 was the obvious reference since it refers to spark-ignition marine engine standards. New conforming modification.

9. Exhaust Emission Standards for 2001 and Later Spark-Ignition Marine Engines.

Paragraph (e)(1)(A) was revised to make evident that carbon monoxide standards would not become applicable until 2010 for jet boats powered by personal watercraft engines (identical to paragraph (g)(1)(A) reference in the revisions to § 2442 above). New conforming modification.

Paragraph (e)(1)(B) was revised to correct a typographical error in which the term “sterndrive/outboard” was mistakenly used in place of the intended “sterndrive/inboard” term to preface the type of standards in § 2442(b) to which jet boats must comply. Additionally, the paragraph was restructured into subparts 1. and 2. providing an option in 2. that would allow the replacement of an existing jet boat engine family in 2010 and 2011 with one that is certified at or below the emissions level of the existing family (identical to paragraph (g)(1)(B) reference in the revisions to § 2442 above). New conforming modification.

Paragraph (e)(1)(C) was revised to clarify the requirements for using a distinct engine family designation (i.e., not combined with personal watercraft engines) depending on when the engine family was first certified (identical to paragraph (g)(1)(C) reference in the revisions to § 2442 above). New conforming modification.

20. Test Procedures, General Requirements.

A new paragraph (c) "Certification testing for Not-To-Exceed emissions" was created to align California's NTE testing requirements with those published in the Federal Register on October 8, 2008. The previously amended paragraph (c) and all subsequent paragraphs were renumbered to accommodate this new addition. New conforming modification.

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.

Additional Supporting Documents Being Made Available

In accordance with Government Code section 11347.1 and California Code of Regulations, Title 1, section 2(c)(3) and section 44, staff has added an additional document to the rulemaking file, the Society of Automotive Engineers (SAE) implementation guidance document J1939-05, issued February 2008. The proposed modifications incorporate this document by reference at Title 13, California Code of Regulations, Section 2444.2(h). This document is available as Attachment V to this notice and for individual purchase from the publisher at http://www.sae.org/servlets/productDetail?PROD_TYP=STD&PROD_CD=J1939/05_200802, and is available for inspection at the postal mailing address noted herein.

Attached is a copy of Board Resolution 08-36 approving revised sections 2111, 2112, 2139, 2147, 2440, 2441, 2442, 2443.1, 2443.2, 2443.3, 2444.1, 2444.2, 2445, and the repeal of 2448, title 13, CCR, the amended "California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines," as referenced in section 2447, title 13, CCR, and the amended "Procedures for Exemption of Add-On and Modified Parts for Off-Road Categories," as referenced in section 2474, title 13, CCR. The regulatory documents for this rulemaking are available online at the following ARB internet site:

<http://www.arb.ca.gov/regact/2008/marine08/marine08.htm>

In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt amended sections 2441, 2442, and 2444.2, California Code of Regulations, title 13, and amended sections 2, 8, 9, and 10 of Part I of the "California Exhaust Emission Standards and Test Procedures for 2001 Model Year 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 approved by the Board and may be submitted by postal mail, electronic mail, or facsimile 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>

Facsimile submittal: (916) 322-3928

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. Additionally, this information may become available via Google, Yahoo, and any other search engines.

In order to be considered by the Executive Officer, comments must be directed to the ARB in one of the three forms described above and received by the 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.

For individuals with sensory disabilities, this document and other related material can be made available in Braille, large print, audiocassette, or computer disk. For assistance, please contact the Clerk of the Board at (916) 322-5594 or by Fax at (916) 322-3928 as soon as possible.

Appendices (5):

- I – Staff’s Modifications to the Proposed Regulation Order
- II – Test Procedures
- III – Resolution 08-36
- IV – Staff’s Suggested Modifications to the Original Proposal, as distributed at the July 24, 2008, Board Hearing
- V – Society of Automotive Engineers (SAE) J1939-05 OBD-M Implementation Guidelines