APPENDIX C

FINAL REGULATION ORDER SUMMARY & RATIONALE

Tier 4 Off-Road Compression-Ignition Engine Regulations

- **Title 13, California Code of Regulations**
- **Test Procedures**

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SUMMARY AND RATIONALE FOR THE TIER 4 OFF-ROAD COMPRESSION-IGNITION ENGINE REGULATIONS AND TEST PROCEDURES

Note: This appendix provides a summary of, and the rationale for, the Tier 4 off-road compression-ignition engine regulations and test procedures amendments approved by the Air Resources Board on December 16, 2011, and with subsequent conforming modifications authorized under Resolution 11-41. Revisions to the original summary and rationale document published on October 26, 2011, as part of the Staff Report: Initial Statement of Reasons, are indicated either by underlined type to indicate additions (except that some existing headings within the document were underlined originally for emphasis, and remain so, and thus do not constitute new language) or by ~~strikeout~~ to indicate deletions.

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Summary and Rationale for Proposed Regulations

Off-Road Compression-Ignition Engines and Equipment

Rationale for staff's proposed amendments to Article 4, Chapter 9, Division 3, Title 13, California Code of Regulations (CCR)

§2421 Definitions

Some of the proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The other proposed amendments are necessary either to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart, or to properly reference incorporated documents.

(a)(3)	Staff proposes to clarify that the dates of applicability for the 2000 and Later Plus Limited Test Procedures are based on model years (and not calendar years).
(a)(4)(A)	In addition to creating a new subparagraph (A) under the existing incorporation provision of the Tier 4 test procedures, staff proposes to sunset the test procedures by renaming them as the "2008-2010 Test Procedures" and to append the date of amendment (place holder) reflecting the revisions proposed herein.
(a)(4)(B)	A new subparagraph (B) is proposed to incorporate the amended "2011 and Later Test Procedures" for Tier 4 engines.
(a)(15)(B)	To preserve the applicability of the existing "constant-speed engine" definition for pre-2011 Tier 4 engines, staff proposes to revise the subjugating test procedure reference to reflect the retired 2008-2010 Test Procedures.
(a)(15)(C)	A new subparagraph (C) is proposed making the revised "constant speed engine" definition applicable to 2011 and later Tier 4 engines.
(a)(19)	A new definition for "date of manufacture" is proposed to align with the analogous federal definition, and because the term is referenced in the labeling requirements of §2423(j)(1)

for new replacement engines. All subsequent definitions are renumbered accordingly.

(a)(35) References to the existing test procedures would be updated and supplemented to reflect the revised test procedures.

(a)(38) A reference to §1039.801 of the Tier 4 test procedures is provided as a supplement to the existing definition of a "model year" to ensure alignment with federal provisions.

§ 2423 Exhaust Emission Standards and Test Procedures – Off-Road Compression Ignition Engines

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(1)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Table 1b The proposed amendments to the table include new ALT NOx+NMHC standards for engines 56 ≤ kW ≤ 560 as well as clarifications and revisions to the footnotes corresponding to the incorporation of the new standard. Footnote 8 is newly added to identify a compliance option not overtly illustrated by the table.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Table 1c Amendment to footnote 1 would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(2)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Table 2b-1 The proposed amendments to the table include new ALT NOx+NMHC and ALT 20% NOx+NMHC FEL caps for engines 56 ≤ kW < 75 corresponding to the incorporation of the new ALT NOx+NMHC standard in Table 1b. Additionally, the implementation periods for several existing FEL caps have been revised to correct clerical errors that unintentionally limited their applicability to one or two years whereas the original intention, as stated in the ARB staff report and U.S. EPA preamble for the original rulemakings, was clearly a period of four years. Other clarifications are proposed to the table to better illustrate optional compliance dates, and the footnotes have been revised to correspond to the incorporation of the new FEL caps and/or revisions to existing implementation dates.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Table 2b-2 The proposed amendments to this table are similar to those identified for Table 2b-1 above, but applicable to engines 75 ≤ kW < 560. Additionally, footnote 9 is added to the table to clarify that the ALT 20% NOx FEL caps would still be available to manufacturers in 2014 for engines 130 ≤ kW < 560 even if a different certification strategy had been used from 2012-2013.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(2)(C) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(3)(A) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(5)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(6) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(9) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(b)(12)(A) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(c)(2)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(1)(C) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Table 6 The proposed amendments to the table correct a clerical error that would unintentionally require Tier 3 engines to be used as flexibility allowances for engines 19 ≤ kW < 56 even

though ARB never required Tier 3 for this category. The amendment would substitute the more appropriate Tier 2 engine requirement in place. A new footnote 1 was appended to the table to clarify that flexibility allowances may still be certified to FELs, but that FELs less stringent than the applicable flexibility standards must be offset with emission credits. The original footnote 1 is renumbered to 2 and the original footnote 2 is deleted because it is no longer relevant with respect to the correction of the Tier 3 to Tier 2 clerical error explained above.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(2)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(3)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(4) The proposed amendment clarifies that in some cases manufacturers would be required to use Tier 2 engines under the flexibility program instead of Tier 1 engines.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(5)(A) The amendment would align with federal requirements by providing an option for manufacturers to eliminate the listing of the FEL on flexibility engine labels when the FEL is more stringent than the emission standard. Because flexibility engines cannot generate emission credits, listing an FEL that is more stringent than the standard is no longer necessary for enforcement or in-use compliance purposes.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(5)(B) The proposal would require manufacturers to list their website on the emission control label instead of an employee's name and telephone number for contact purposes, because the website is likely to be a more permanent point of reference.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(7)(A) The proposal would remove the requirement for a manufacturer to notify ARB of its intent to use flexibility allowances by January 1 of the first year that flexibility allowances will be used because requests for flexibility allowances may not occur until later in the year. The new requirement allows manufacturers to notify ARB at any time during the year so long as it precedes the usage of flexibility allowances.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(7)(A)(2) The proposed requirement would require equipment manufacturers to provide ARB with the email address of a contact person who can answer questions regarding the manufacturers' intent to use flexibility allowances.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(7)(B) The proposed amendments to this section include clarifying refinements to the language pertaining to the production volume information that needs to be reported to ARB, and post-production confirmation that the engine manufacturers providing flexibility allowances have all been identified.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(8) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(d)(9) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(e)(2) Staff proposes to require the inclusion of engine family name in the recordkeeping requirements for flexibility allowances to improve certification tracking and verification capabilities.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or

certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(f)(3) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(h) The proposal would update existing test procedure references to reflect the revised test procedures.

Some of the proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The other proposed amendments are necessary to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart.

(j)(1)(D) The proposed amendments would align with proposed federal requirements by creating separate labeling specifications for new replacement engines dependent on whether or not the replacement engine was ever subject to emission standards. The label text is also revised for greater alignment with federal provisions, except that ARB would require “engine power,” “reference engine family,” and “date of manufacture” to be displayed on the label to assist with the implementation and enforcement of ARB’s various in-use off-road programs. U.S. EPA does not have equivalent in-use programs. Section-specific definitions are provided to define the terms “certified power” and “advertised power” as used in the labeling requirements.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(l)(1) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(m) The proposed amendment creates a new paragraph (m) to align with the recently promulgated federal anti-stockpiling requirements incorporated in the 2011 and Later Test Procedures at §1068.103 and §1068.105.

§ 2424 Emission Control Labels – 1996 and Later Off-Road Compression-Ignition Engines

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(c)(2) The proposal fixes a referencing error that should have been updated during previous regulatory amendments to cite the "2000 and Later Plus Limited Test Procedures."

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(c)(3) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendment is necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(l) The proposed amendment creates a new paragraph (l) to align with federal provisions, as incorporated in §1068.101(b)(7) of the 2011 and Later Test Procedures, which allows dealers and authorized distributors to replace incorrect labels on engines and equipment prior to the sale of the engines and equipment to ultimate purchasers. For example, dealers and authorized distributors would be allowed to remove the existing label from an engine originally certified under the transitional program for equipment manufacturers (TPEM flexibility program) in order to re-purpose the engine as a replacement engine so long as the engine had not yet been sold to an ultimate purchaser. In so doing, the manufacturer would be responsible for updating any tabulations, calculations, or reporting requirements that would be affected by the re-purposing of the engine. Downgrading the emissions performance of an engine shall not occur when re-purposing the engine. The ARB requirement would also extend the provision to affixing supplemental replacement engine labels as required in 2423(j). The new paragraph also reinforces that removal of an emissions control label, unless permitted by regulation, is a violation of the regulations.

§ 2425 Defects Warranty Requirements for 1996 and Later Off-Road Compression-Ignition Engines.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(a) The proposed amendments clarify that the revised defects warranty and reporting requirements in §1039.120 and §1039.125 would only apply to 2011 and Later Tier 4 engines.

§ 2425.1 Defect Investigation and Reporting Requirements.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(a) The proposal would update existing test procedure references to reflect the revised test procedures.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(c) The proposal would update existing test procedure references to reflect the revised test procedures.

§ 2426 Emission Control System Warranty Statement.

The proposed amendments are necessary to ensure that owners of Tier 4 engines are provided with warranty-related information. Without such information, owners might not be fully informed regarding their rights to have defective components replaced at no cost to them, which could result in improper engine maintenance and a corresponding increase in emissions.

(a) The proposed amendments would extend the requirement for manufacturers to include a copy of the California Emission Control Warranty Statement to all off-road compression-ignition engines. Tier 4 engines were unintentionally omitted during the previous amendment of the regulations. Additional refinements to the language on the Emission Control Warranty Statement are proposed to better reflect the inclusion of all types of off-road compression-ignition engines (not just heavy-duty engines). <u>A typographical error in the text of the California Emission Control Warranty Statement was corrected by replacing the parenthetical “year” with the parenthetical “years.” The plural form of the word better correlates to ARB’s longstanding practice of allowing manufacturers to specify a range of years on the warranty statement for carry-over engine families rather than requiring manufacturers to produce a unique warranty statement for each year when all other relevant information is identical.</u>

(b) The proposed amendment to this paragraph (b) is similar to the amendment in (a) above such that manufacturers would be required to include a description of the obligations and warranty rights of the manufacturer and equipment for previously (and unintentionally) excluded Tier 4 engines.

§ 2427 Production Engine Testing, Selection, Evaluation, and Enforcement Action.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(c)(1)(B) The proposal would update existing test procedure references to reflect the revised test procedures.

California Exhaust Emission Standards and Test Procedures for New 2008-2010 Tier 4 Off-Road Compression-Ignition Engines, Part I-C

Staff proposes to retire the existing "California Exhaust Emission Standards and Test Procedures for New 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C," applicable to land-based off-road compression ignition engines regulated under Title 13, CCR, Chapter 9, Article 4, by retitling to the "California Exhaust Emission Standards and Test Procedures for New 2008-2010 Tier 4 Off Road Compression Ignition Engines, Part I-C." The applicability of the current test procedures, as referenced in proposed §2421(a)(4)(A) of the California regulation, will then be limited to Tier 4 engines through the 2010 model year only.

In the following descriptions of the specific amendments being proposed, a complete alignment with a corresponding federal subsection is indicated by "(Alignment)." Instances of non-alignment with specific portions within a subsection being proposed for alignment are indicated by "(Non-alignment)."

PART 1039 – CONTROL OF EMISSIONS FROM NEW AND IN-USE OFF-ROAD COMPRESSION-IGNITION ENGINES

The proposed amendment is necessary to clarify the scope of applicability as belonging to California certified engines rather than federally certified engines.

Staff proposes to substitute the adjective "OFF-ROAD" in place of the federal adjective "NONROAD" in the title of this Part 1039 for better consistency with, and identification of, California requirements.

Subpart G – Special Compliance Provisions

The purpose of subpart G is to grant optional compliance flexibility provisions to address hardship and/or to ease the transition to lower standards. The provisions in this subpart are usually available for a limited time only.

§ 1039.625 What requirements apply under the program for equipment-manufacturer flexibility?

The proposed amendment is necessary to restore/establish alignment with a similar provision in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

(e)(3) The proposed amendment corrects a clerical error that would have unintentionally required Tier 3 engines to be used as flexibility

allowances for engines 19 ≤ kW < 56 even though ARB never required Tier 3 for this category. The amendment changes the 37kW endpoint to a 56kW endpoint and, as a result, enables the appropriate use of Tier 2 engine for the power category. (Alignment)

PART 1068 – GENERAL COMPLIANCE PROVISIONS FOR OFF-ROAD PROGRAMS

The proposed amendment is necessary to clarify the scope of applicability as belonging to California certified engines rather than federally certified engines.

Staff proposes to substitute the adjective “OFF-ROAD” in place of the federal adjective “NONROAD” in the title of this Part 1068 for better consistency with, and identification of, California requirements.

Subpart B – Prohibited Actions and Related Requirements

The purpose of Subpart B is to clarify the intention of the regulations by identifying actions that are contrary to compliance and/or which would constitute violations subject to civil penalty.

§ 1068.101 What general actions does this regulation prohibit?

The proposed amendment is necessary to clarify the scope of applicability as belonging to California certified engines rather than federally certified engines.

(b)(3) The proposal replaces the adjective “nonroad” with the more appropriate adjective “off-road” for better consistency with, and identification of, California requirements.

California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-D

PART 1039 – CONTROL OF EMISSIONS FROM NEW AND IN-USE OFF-ROAD COMPRESSION-IGNITION ENGINES

Proposed amendments to the incorporated provisions of the California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part I-D, applicable to land-based off-road compression-ignition engines regulated under Title 13, CCR, Chapter 9, Article 4.

In the following descriptions of the specific amendments being proposed, a complete alignment with a corresponding federal subsection is indicated by "(Alignment)." Instances of non-alignment with specific portions within a subsection being proposed for alignment are indicated by "(Non-alignment)."

Subpart A – Overview and Applicability

The purpose of Subpart A is to identify the types of engines and equipment subject to the regulations and to provide guidance on how best to navigate through the regulations to ensure full comprehension and compliance.

§1039.1 Does this part apply for my engines?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments to this section clarify that stationary engines, which are generally not subject to Part 1039, may still be required to comply with the emissions standards in Part 1039 if so required by the stationary engine regulations. (Alignment)

§1039.2 Who is responsible for compliance?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

This is a new section, consisting of text transferred from §1039.10 of the existing test procedures, intended to make more apparent that the certification requirements of the regulation are primarily applicable to engine manufacturers. (Alignment)

§1039.5 Which engines are excluded from this part's requirements?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments provide additional clarity regarding specific engine types that are not subject to Part 1039. (Alignment)

§1039.10 How is this part organized?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

This section remains unchanged except for the transfer of text to §1039.2 related to the identification of certification responsibilities. (Alignment)

§1039.15 Do any other regulation parts apply to me?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify the use of Part 1065 of the Test Procedures for emission measurement purposes only and not for determining compliance with exhaust standards. (Alignment)

§1039.20 What requirements from this part apply to excluded stationary engines?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendment limits the requirement to place labels on stationary engines that would otherwise be subject to labeling provisions under other regulations. (Alignment)

§1039.30 Submission of information

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.
This is a new section intended to summarize and simplify the identification of existing reporting and record keeping requirements that are spread throughout Parts 1039 and 1068. (Alignment)

Subpart B – Emission Standards and Related Requirements

The purpose of subpart B is to identify emission standards, implementation dates, warranty provisions, maintenance-related requirements, and labeling specifications.

§1039.102 What exhaust emission standards and phase-in allowances apply for my engines in model year 2014 and earlier?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments create a new alternate interim Tier 4 exhaust standard for combined oxides of nitrogen and hydrocarbon (ALT NOx + NMHC) that is more stringent than the sum of the separate ALT NOx and NMHC standards, but which can be met using banked emission credits. The proposed amendments also fix a clerical error in which the wrong power designation would have resulted in Tier 3 engines being required for equipment flexibility allowances in a power category for which Tier 3 engines were never required. The final proposed amendment does away with an unnecessary requirement to identify the PM standard on the emission label for non-FEL certified engines in the 37 - 56 kW power category. (Alignment)

§1039.104 Are there interim provisions that apply only for a limited time?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or

certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments correct clerical errors in Table 1 of §1039.104 that unintentionally limit the implementation period for using ALT FEL Caps to only one or two years whereas the intention, as stated in the previous staff report, was to provide a four year usage period. Additionally, the proposed amendments clarify that a manufacturer is free to certify an engine family to the new ALT NOx+NMHC standards even if the engine could satisfy just the ALT NOx FEL requirement. (Alignment)

§1039.115 What other requirements apply?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarifies that only engines subject to Part 1039 need to comply with the provisions in §1039.115, and limit the applicability period for controlling crankcase emissions to the engine's useful life. (Alignment)

§1039.120 What emission-related warranty requirements apply to me?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The amendments would clarify applicability of warranty provisions to regulated pollutants only and correct several grammatical errors. (Alignment)

§1039.125 What maintenance instructions must I give to buyers?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The amendments would extend the maintenance interval for several components, including particulate traps, to 4500 hours, and append crankcase vent filters to the list of components covered for 1500 hours. Additionally, the amendments provide additional

flexibilities that would allow manufacturers to request shorter warranty periods provided a need for such can be demonstrated. (Alignment)

§ 1039.135 How must I label and identify the engines I produce?

Some of the proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The other proposed amendments are necessary to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart.

The proposed amendments require the listing of PM standards on some lower power engines during the Tier 4 interim years and redirect the use of standardized terms and abbreviations to reference §1068.45 rather than SAE J1930. (Alignment)
The proposed amendments would also make mandatory the inclusion of the engine's date of manufacture on the emissions control label and clarifies that the visibility requirements in the regulation still apply. (Non-alignment)

Subpart C – Certifying Engine Families

The purpose of subpart C is to specify the requirements for certifying engine families and obtaining Executive Orders.

§1039.205 What must I include in my application?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify that emission results must be submitted in the certification application for each mode when testing under a discrete-mode cycle. The amendments also clarify that measured carbon dioxide (CO2), nitrous oxide (N2O), and methane (CH4) (greenhouse gasses) must usually be reported in the certification application. The amendments would also require manufacturers to identify whether or not any of the engines in an engine family will be used in stationary applications, and require manufacturers to explain and justify significant increases in production volumes from year to year to curtail any potential stockpiling intentions. Finally, the amendments would require that manufacturers assign a certification service agent located domestically. (Alignment)

§1039.220 How do I amend the maintenance instructions in my application?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify the procedures for amending maintenance instructions and the continued liability of the manufacturer for those changes with respect to warranty claims. (Alignment)

§1039.225 How do I amend my application for certification?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed modifications provide clarity to existing language by making some provisions more specific, and by removing ambiguity from others. Additionally, the amendments clarify existing policy to allow the raising or lowering of FEL designations under specific conditions. (Alignment)

§1039.230 How do I select engine families?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments consist of a change in philosophy regarding the grouping of engines into families based on cylinder arrangement rather than cylinder count and provide more specificity regarding existing requirements. (Alignment)

§1039.235 What testing requirements apply for certification?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

In addition to simplifying the name of the section, the proposed amendments would clarify existing text and would require the measurement of CO2, N2O, and CH4 for low-hour certification testing as well as the protocol for rounding test results. Additionally, the text clarifies that N20 and CH4 testing may be omitted for engines not subject to N20 and CH4 standards so long as an alternate approved method of inferring the data is available. (Alignment)

§1039.240 How do I demonstrate that my engine family complies with exhaust emission standards?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments require that emission test results from engines used to establish deterioration factors must be below the standards at each test point for general certification testing and for not-to-exceed (NTE) testing. Other clarifications making existing language more specific are also proposed. (Alignment)

§1039.245 How do I determine deterioration factors from exhaust durability testing?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.
The proposed amendment restructures the wording in the paragraph to locate the introduction and purpose statement ahead of the specification of procedural criteria for determining deterioration factors. (Alignment)

§1039.250 What records must I keep and what reports must I send to the Air Resources Board (ARB)?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without

such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments extend the deadline for submitting production reports to 45 days (previously 30) after the end of the year and make grammatical and referencing corrections. (Alignment)

§1039.255 What decisions may ARB make regarding my Executive Order?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify that all information will be considered when denying a manufacturers application for certification, and provide California-specific references regarding ARB's authority to void Executive Orders. (Alignment)

Subpart F – Test Procedures

The purpose of subpart F is to standardize the procedures for measuring emissions in a precise and repeatable manner representing the real-world operation of off-road diesel engines and equipment.

§ 1039.501 How do I run a valid emission test?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments refine the scope of applicability to measuring only exhaust constituents and reiterate that CO2, N2O, and CH4 must also be measured. (Alignment)

§ 1039.505 How do I test engines using steady state duty cycles, including ramped modal testing?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments to this section include a more specific reference to part 1065.514 for calculating duty-cycle statistics, a reference change to the procedures in part 1065 for calculating idle emissions, removal of the elsewhere-required maximum fueling rate criterion for testing constant speed engines at full load operating modes, and changes to duty-cycle regression calculations when using, and to allow the use of, non-motoring dynamometers during idle operation. The amendments also update references for steady-state duty cycles from the previously existing Appendices III and IV to the newly consolidated Appendix II. (Alignment)

§ 1039.510 Which duty cycles do I use for transient testing?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify the calculation of "Official Transient Emission Result" with a graphical representation of the equation, and replace the validation procedures for cycle statistics with a reference to 1065.514. (Alignment)

Subpart G – Special Compliance Provisions

The purpose of subpart G is to grant optional compliance flexibility provisions to address hardship and/or to ease the transition to lower standards. The provisions in this subpart are usually available for a limited time only.

§ 1039.625 What requirements apply under the program for equipment-manufacturer flexibility?

Some of the proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The other proposed amendments are necessary to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart.

The proposed amendments to this section include clarification that engines certified to FELs are still considered compliant with emission standards, clarification that manufacturers may be required to use Tier 2 engines under the flexibility program, the correction of a clerical error that would have resulted in manufacturers being required to use non-existent Tier 3 engines as flexibility allowances for equipment requiring engines with rated power 37-56 kW, a requirement to list the manufacturer's website on the

emission control label instead of an employee's name and telephone number for contact purposes, removal of the unnecessary January 1 deadline for notifying ARB of a manufacturer's intent to use flexibility allowances, clarification of the requirements for identifying the manufacturers of the engines to be used by the equipment manufacturer, and the option to eliminate the listing of the FEL on flexibility engine labels when the FEL is more stringent than the emission standard. (Alignment)

Staff also proposes to require the inclusion of engine family name to the recordkeeping requirements to assist ARB certification staff in tracking and verifying flexibility allowances. (Non-Alignment)

§ 1039.626 What special provisions apply to equipment imported under the equipment-manufacturer flexibility program?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed requirements would remove the unnecessary January 1 deadline for notifying ARB of an importer's intent to use flexibility allowances. (Alignment)

Subpart H – Averaging, Banking, and Trading for Certification

The purpose of Subpart H is to explain the requirements for calculating Family Emission Limits (FELs) and the proper application of emission credits.

§ 1039.705 How do I generate and calculate emission credits?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify that positive and negative emission credits should be rounded separately prior to being added together. (Alignment)

§ 1039.715 How do I bank emission credits?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or

certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments remove the restriction of using banked credits only within the averaging set in which they were created and clarify when and how reserved credits become actual credits. (Alignment)

§ 1039.720 How do I trade emission credits?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendment clarifies that trading banked credits to another manufacturer is only allowed within an averaging set. (Alignment)

§ 1039.725 What must I include in my application for certification?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments remove provisions to identify the final destination of the generated credits because there are no longer any restrictions to use credits within the same averaging set. (Alignment)

§ 1039.730 What ABT reports must I send to ARB?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify the recordkeeping requirements after changing an FEL post production, and make more specific the type of production volumes associated with the changed FEL that must be reported. (Alignment)

§ 1039.735 What records must I keep?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments restrict the use and banking of credits for improper retention of accurate records, allow manufacturers to store records on any media so long as the information is in English and can be made available to ARB promptly on request, and requires the identification of the purchaser and destination for every engine sold in the records. (Alignment)

Subpart I – Definitions and Other Reference Information

The purpose of subpart I is to explain terms, acronyms, and abbreviations used throughout the test procedures and regulations to ensure a consistent interpretation of the requirements herein.

§ 1039.801 What definitions apply to this part?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed changes to this section include the addition or revision of several definitions necessary for maintaining alignment between federal and California regulations. (Alignment)

§ 1039.805 What symbols, acronyms, and abbreviations does this part use?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments include new acronyms for nitrous oxide (N2O) and methane (CH4) because these pollutants are now required to be measured and reported in the certification applications for some engine families. (Alignment)

§ 1039.810 What materials does this part reference?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to delete this section as it is no longer a federal requirement and was only included in the California test procedures for continuity and consistency. The reference information is contained elsewhere within the regulations. (Alignment)

§1039.825 What reporting and recordkeeping requirements apply under this part?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

This is a new section that would simplify the identification of reporting and recordkeeping requirements in Part 1039 by consolidating the location for each requirement by section number. (Alignment)

Appendix II to Part 1039 – Steady-state Duty Cycles

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments to Appendix II include a change in title and the reorganizing and incorporation of requirements from Appendices III and IV to create a more comprehensive section for the requirements pertaining to the duty-cycles for steady-state engines. (Alignment)

Appendix III to Part 1039 DELETE. (Alignment)

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Appendix IV to Part 1039 DELETE. (Alignment)

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-E

PART 1065 – ENGINE-TESTING PROCEDURES: Tier 4 Off-Road Compression-Ignition Engines

The proposed part 1065 test procedures prescribe scaled specifications for test equipment and measurement instruments by parameters such as engine power, engine speed and the emission standards to which an engine must comply. Manufacturers will be able to use these specifications to determine what range of engines and emission standards may be tested. The basis of the proposed 1065 is the federal part 1065, which is a combination of U.S. EPA's existing test procedures for testing various categories of nonroad engines and heavy-duty on-highway engines. Part 1065 has been revised by U.S. EPA to better fit off-road compression-ignition engines in response to comments from stakeholders.

Part 1065 is organized by subparts as shown below:

Subpart A	General provisions; global information on applicability, alternate procedures, units of measure, etc.
Subpart B	Equipment specifications; required hardware for testing
Subpart C	Measurement instruments
Subpart D	Calibration and verifications; for measurement systems
Subpart E	Engine selection, preparation, and maintenance
Subpart F	Test protocols; step-by-step sequences for laboratory testing and test validation
Subpart G	Calculations and required information
Subpart H	Fuels, fluids, and analytical gases
Subpart I	Oxygenated fuels; special test procedures
Subpart J	Field testing and portable emissions measurement systems
Subpart K	Definitions, references, and symbols

Subpart A

The purpose of subpart A is to identify the applicability of part 1065 and describe how procedures other than those in part 1065 may be used to comply with Title 13, CCR regulations for off-road compression-ignition engines.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

§1065.1 The purpose of this section is to explain that land-based off-road compression-ignition engines remain subject to Title 13, CCR, Chapter 9, Article4, rather than U.S. EPA's exhaust emission requirements. Other subsections that are not applicable to this portion of the California test procedure are deleted.

Subpart B

The purpose of subpart B is to describe engine and dynamometer related systems. Many of these specifications are scaled to an engine's size, speed, torque, exhaust flow rate, etc. Subpart B also describes sampling dilution systems. These include specifications for the allowable components, materials, pressures, temperatures, and a diagram illustrating all the available equipment for measuring emissions.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart C

The purpose of subpart C is to specify the requirements for the measurement instruments used for testing. These specifications apply to both laboratory and field testing. Subpart C recommends accuracy, repeatability, noise, and response time specifications for individual measurement instruments, and requires that overall measurement systems meet the calibrations and verifications in Subpart D.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart D

The purpose of subpart D is to specify accuracy, repeatability and other related parameters for the test measurement systems.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart E

The purpose of subpart E is to describe how to select, prepare, and maintain a test engine.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart F

The purpose of subpart F is to describe the step-by-step protocols for engine mapping, test cycle generation, test cycle validation, pre-test preconditioning, engine starting, emission sampling, and post-test validations.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart G

The purpose of subpart G is to address all the calculations required in part 1065. Subpart G specifies emission calculations based on molar quantities for flow rates instead of volume or mass. This change eliminates the frequent confusion caused by using different reference points for standard pressure and standard temperature. Instead of declaring standard densities at standard pressure and standard temperature to convert volumetric concentration measurements to mass-based units, subpart G declares molar masses for individual elements and compounds. Since these values are independent of all other parameters, they are known to be universally constant.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart H

The purpose of subpart H is to specify test fuels, lubricating oils and coolants, and analytical gases for testing. Subpart H also specifies that service accumulation fuels

must be either a test fuel or a commercially available in-use fuel. This helps ensure that testing is representative of in-use engine operation.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

§1065.701 The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The purpose of this section is to describe general requirements for test fuels. Staff has proposed that the Executive Officer may approve other test fuels to be used by the certifying entity so long as they do not affect the demonstration of compliance.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

§1065.703 The purpose of this section is to allow engine testing with other fuels, such as California diesel fuel, so long as they do not affect the demonstration of compliance.

Subpart I

The purpose of this subpart is to describe special procedures for measuring certain hydrocarbons whenever oxygenated fuels are used.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart J

The purpose of subpart J is to describe field testing and portable emissions measurement systems (PEMS).

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Subpart K

The purpose of subpart K is to list all the defined terms, identification of reference materials, and lists of acronyms and abbreviations used throughout part 1065.

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-F

PART 1068 – GENERAL COMPLIANCE PROVISIONS FOR OFF-ROAD COMPRESSION-IGNITION ENGINE PROGRAMS

Proposed amendments to the incorporated provisions of the California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off Road Compression Ignition Engines, Part I-F, applicable to land-based off-road compression ignition engines regulated under Title 13, CCR, Chapter 9, Article 4.

In the following descriptions of the specific amendments being proposed, a complete alignment with a corresponding federal subsection is indicated by "(Alignment)." Instances of non-alignment with specific portions within a subsection being proposed for alignment are indicated by "(Non-alignment)."

The proposed amendments are necessary to clarify the scope of applicability as belonging to California certified engines rather than federally certified engines, and to identify the source document upon which staff's proposed changes are predicated.

> Staff proposes to substitute the adjective "OFF-ROAD" in place of the federal adjective "NONROAD" in the title of this Part 1068 for better consistency with, and identification of, California requirements. Additionally, staff proposes to add the phrase "COMPRESSION-IGNITION ENGINE" to indicate that the California test procedures are specific to off-road compression-ignition engines unlike the federal version of Part 1068 which is applicable to all nonroad categories.
>
> Staff proposes to reference the existing test procedures as the new source document rather than to continue referencing the federal register from which the exiting test procedures were originally constructed. This is a more straightforward way of illustrating staff's proposed amendments than to reconstruct the entirety of amendments from the initial adoption of the regulation, which could confuse the reader as to which proposed changes are current and which had been previously adopted by the Board.

Subpart A – Applicability and Miscellaneous Provisions

The purpose of Subpart A is to identify the types of engines and equipment subject to the regulations, explain ARB's rights to inspect and verify compliance, explain ARB's decision making process, define technical terms used throughout the test procedures, and provide general guidance regarding labels.

§ 1068.2 How does this part apply for engines and how does it apply for equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff's proposal incorporates a new section to explain the applicability of recently added provisions for equipment manufacturers. In general, the federal provisions are meant to apply to nonroad categories where evaporative emission control requirements and standards are already effective. However, staff is proposing to incorporate these provisions for the California off-road compression-ignition category, which has no evaporative emission control requirements, because the provisions would grant ARB increased access to inspect equipment manufacturing facilities to ensure compliance regarding other equipment-manufacturer-specific areas of these regulations, California's other off-road compression-ignition in-use regulations, and the future implementation of off-road compression-ignition not-to-exceed requirements. (Alignment)

§ 1068.5 How must manufacturers apply good engineering judgment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposal adds in-use equipment to the list of compliance testing categories wherein good engineering judgment must be applied. (Alignment)

§ 1068.15 What general provisions apply for Air Resources Board decision-making?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposal amends the title of the section to more accurately depict the information contained in the section. (Alignment)

§ 1068.20 May ARB enter my facilities for inspections?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or

certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to extend ARB's right-of-access authority to facilities that manufacturer, store, and/or test off-road compression-ignition equipment. (Alignment)

§ 1068.25 What information must I give to ARB?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to extend recordkeeping and reporting requirements for exempt equipment to equipment manufacturers. Staff also proposes to clarify that required records must be retained for 8 years and that manufacturers are ultimately liable and subject to civil penalty for the submission of false information, even if provided to and submitted by a third party. (Alignment)

§ 1068.27 May ARB conduct testing with my production engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to extend ARB's authority to request and conduct production-line testing to equipment subject to the regulations (instead of just engines). (Alignment)

§ 1068.30 What definitions apply to this part?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments to this section include updated references to the proposed revised test procedures for sharing common definitions, updated general references to the proposed revised test procedures for Parts 1039 and 1068, adoption of several new definitions, and the modification of several existing definitions. (Alignment)

§1068.45 General labeling provisions.

The proposed amendments are necessary to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart.
Staff proposes to redirect the provisions of this new section back to the existing requirements for emission control labels found in §2424 of the California regulations, including criteria for visibility, permanence, location, and other related requirements. (Non-alignment)

Subpart B – Prohibited Actions and Related Requirements

The purpose of Subpart B is to clarify the intention of the regulations by identifying actions that are contrary to compliance and/or which would constitute violations subject to civil penalty.

§ 1068.101 What general actions does this regulation prohibit?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to incorporate new federal subparagraph (b)(7) that clarifies the prohibition and penalties associated with removing permanent labels, but also provides a list of circumstances where removal is permitted, including replacement of an incorrect label prior to the engine being sold to an ultimate purchaser. (Alignment)

§ 1068.103 What are the provisions related to the duration and applicability of Executive Orders?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to align with new federal section §1068.103 for the purposes of having a uniform nationwide approach regarding model year production periods, and clarifying that engines may be pre-built prior to the effective date of the Executive Order. The proposed amendments would also clarify stockpiling prohibitions by constraining manufacturer's inventory practices to prevent the circumvention of new standards. (Alignment)

§ 1068.105 What other provisions apply to me specifically if I manufacture equipment needing certified engines?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposal further clarifies prohibitions against stockpiling by disallowing the knowledgeable installation of engines by equipment manufacturers that were illegally stockpiled by engine suppliers, and clarifies that equipment may not be introduced into commerce in California with engines that are not covered by an Executive Order. (Alignment)

§ 1068.110 What other provisions apply to engines/equipment in service?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would make equipment (instead of just engines) applicable to the provisions regulating aftermarket parts, and the certification thereof, for repair purposes, and allows manufacturers to limit diagnosis and repair support to authorized service facilities so long as warranty obligations can still be met. (Alignment)

§ 1068.115 When must manufacturers honor emission-related warranty claims?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to extend the provisions related to warranty claims to equipment, but only with respect to the regulated aspects of the equipment. (Alignment)

§ 1068.120 What requirements must I follow to rebuild engines?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments clarify that although records need not be kept for maintenance or service other ~~that~~ than rebuilding, it is a violation for service providers to make any repair or modification that results in increased emissions. The proposed amendments also clarify that rebuilt engines must be at least as clean as the engines being replaced, but that in some cases an earlier tier engine can be as clean as a later tier engine due to averaging, etc. Additionally, the amendments allow for the approximation of hours of operation or mileage if the engine does not have an hour meter or odometer. (Alignment)

Subpart C – Exemptions and Exclusions

The purpose of Subpart C is to identify special cases or classifications of engines and equipment where the requirements of this part would not apply. (Alignment)

§ 1068.201 Does ARB exempt or exclude any engines/equipment from the prohibited acts?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of exemptions and exclusions from prohibited acts to equipment (instead of just engines), as appropriate. (Alignment)

§ 1068.210 What are the provisions for exempting test engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of testing-related exemption provisions to equipment (instead of just engines) used solely for testing purposes, as appropriate. Affected equipment would be labeled accordingly. (Alignment)

§ 1068.215 What are the provisions for exempting manufacturer-owned engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or

certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of experimental permit exemptions to equipment (instead of just engines), as appropriate. Affected equipment would be labeled accordingly. (Alignment)

§ 1068.220 What are the provisions for exempting display engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of display exemption provisions to equipment (instead of just engines), as appropriate. Affected equipment would be labeled accordingly. (Alignment)

§ 1068.225 What are the provisions for exempting engines/equipment for national security?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of exemptions for national security to equipment (instead of just engines). The proposed amendments would also redirect all requirements to the exact federal requirements of 40 CFR 1068.225 as of June 28, 2011. (Alignment)

§ 1068.230 What are the provisions for exempting engines/equipment for export?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of export exemption provisions to equipment (instead of just engines), as appropriate. (Alignment)

§ 1068.235 What are the provisions for exempting engines/equipment used solely for competition?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposed amendments would extend the applicability of competition exemption provisions to equipment (instead of just engines), as appropriate. The proposed amendments also clarify that using this provision to circumvent the regulations would be a violation of the regulations. (Alignment)

§ 1068.240 What are the provisions for exempting new replacement engines?

Some of the proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The other proposed amendments are necessary to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart.

Staff proposes to amend the labeling portion of this section to focus on the replacement engine rather than the engine being replaced. (Non-alignment)
Staff proposes to adopt the same statement of compliance form as promulgated federally (i.e., same language, but with California-specific references). (Alignment)
Staff proposes the inclusion of additional information (i.e., engine power, reference family name, and date of manufacturer) on the emissions control label to aid in the implementation of ARB-specific in-use fleet modernization programs and their enforcement. (Non-alignment)

§ 1068.245 What temporary provisions address hardship due to unusual circumstances?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

The proposal would clarify existing language by removing redundant or unnecessary qualifiers to using the hardship allowances. The proposal would also clarify conditions in a new subparagraph (b), related to the unusual circumstances that lead to the

hardship, by which manufacturers can qualify for hardship relief without a demonstration that lack of relief will result in the insolvency of their companies. New provisions regarding the labeling of equipment are also proposed to address hardship relief pertaining to equipment. (Alignment)

§ 1068.250 What are the provisions for extending compliance deadlines for small volume manufacturers and small businesses under hardship?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to extend the applicability of this provision to small businesses and for equipment (instead of just engines), as appropriate. Staff also proposes to adopt the same labeling form as U.S. EPA for engines qualifying under this provision, but would require a mandatory listing of engine power on the emission control label for California engines. New provisions regarding the labeling of equipment are also proposed to address this provision pertaining to equipment. (Alignment)

§ 1068.255 What are the provisions for exempting engines and components for hardship for equipment manufacturers and secondary engine manufacturers?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify the labeling requirements for engines using the provisions of this section by adopting the same labeling form as U.S. EPA, but with a mandatory listing of engine power on the emission control label for California engines. (Alignment)

§ 1068.260 What general provisions apply for selling or shipping engines that are not yet in their certified configuration?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify the existing language of §1068.261 by bifurcating the requirements into separate sections, the new §1068.260 and the amended §1068.261. This new section explains the delegated assembly requirements for engines that are not yet certified whereas the amended §1068.261 explains the delegated assembly requirements for engines that have already been certified. (Alignment)

§ 1068.261 What provisions apply for selling or shipping certified engines that are not yet in the certified configuration?

Some of the proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits. The other proposed amendments are necessary to ensure the effectiveness of ARB programs for which U.S. EPA does not have an equivalent counterpart.

As explained above, staff proposes to revise this section to specifically address the delegated final assembly of certified engines. (Alignment)

Staff also proposes to include language separate from that in the federal provisions to prevent distributors that have been designated as equipment manufacturers under this section to be eligible for equipment manufacturer flexibility allowances.(Non-alignment)

§ 1068.265 What provisions apply to engines/equipment that are conditionally exempted from certification?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to extend the provisions of this section to equipment, for which certification would normally apply, that have been exempted from certification requirements. (Alignment)

Subpart D – Imports

The purpose of Subpart D is to ensure uniform compliance with the regulations regardless of an engine's point of origin.

§ 1068.301 What general provisions apply?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

In addition to a change in title to more accurately characterize the section, staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California, but that ARB reserves the right to independently enforce the requirements through civil penalties and/or the revocation of Executive Orders. (Alignment)

§ 1068.305 How do I get an exemption or exclusion for imported engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California. (Alignment)

§ 1068.310 What are the exclusions for imported engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California. (Alignment)

§ 1068.315 What are the permanent exemptions for imported engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or

certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California. (Alignment)

§ 1068.320 How must I label an imported engine with a permanent exemption?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to delete this section in deference to U.S. EPA's jurisdiction over the importation of engines into the United States and because the labeling provisions of this section are now addressed elsewhere in §1068.310(e). (Alignment)

§ 1068.325 What are the temporary exemptions for imported engines/equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California. (Alignment)

§ 1068.330 How do I import engines requiring further assembly?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to delete this section in deference to U.S. EPA's jurisdiction over the importation of engines into the United States and because the further assembly of this section provisions have now been assimilated into §1068.325. (Alignment)

§ 1068.335 What are the penalties for violations?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California. Staff also proposes to retain authority to enjoin any violation of any provisions of Subpart D of this part 1068 under §43017 of the California Health and Safety Code. (Alignment)

§ 1068.360 What restrictions apply to assigning a model year to imported engines and equipment?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify that U.S. EPA is generally responsible for regulating the importation of engines into the United States, even if importation were to occur exclusively into California. (Alignment)

Subpart E – Selective Enforcement Auditing

The purpose of Subpart E is to provide ARB with an early opportunity to evaluate the emissions performance of certified production vehicles and the authority to revoke Executive Orders upon evaluation failure.

§ 1068.410 How must I select and prepare my engines?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to remove the provisions for calculating an alternate minimum idle speed based on emissions stabilization in lieu of the more standardized procedures in part 1065 of the 2011 and Later Test Procedures. The proposal also renumbers portions of the section to improve readability. (Alignment)

§ 1068.415 How do I test my engines?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff's proposal clarifies that ARB has the authority to require service hour accumulation at a greater rate than the minimum specified accumulation rate. (Alignment)

§ 1068.430 What happens if an engine family fails an SEA?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to clarify the existing requirement by reorganizing sentences to improve readability. (Alignment)

Subpart F – Reporting Defects and Recalling Engines/Equipment

The purpose of Subpart F is to ensure the repair of non-conforming engines and equipment in the field and to serve as an incentive for manufacturers to design and build more durable engines and equipment from the start to avoid the expenses associated with conducting a recall.

§ 1068.501 How do I report emission-related defects?

The proposed amendments are necessary to restore/establish alignment with similar provisions in the federal regulations for nonroad compression-ignition engines. Without such alignment, manufacturers could be forced to satisfy additional requirements and/or certify separate engine families in California at considerable extra cost without a corresponding increase in emission benefits.

Staff proposes to incorporate the latest changes made by U.S. EPA to the defect reporting requirements of this section to avoid separate federal vs. State thresholds. Separate thresholds would necessitate manufacturers doing double work to comply with these provisions without a corresponding benefit in emissions. (Alignment)