## State of California AIR RESOURCES BOARD

## CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR NEW 2000 AND LATER TIER 1, TIER 2, AND TIER 3 OFF-ROAD COMPRESSION-IGNITION ENGINES

#### **PART I-B**

Adopted: <u>January 28, 2000</u> Amended: (date of amendment)

NOTE:

This document incorporates by reference 40 Code of Federal Regulations (CFR) part 89, subparts A, B, C, D, E, F, G, H, I, J, and K, including Appendix A to subpart A, Appendix A and B to subpart E, and Appendix A to subpart F, as most recently amended July 13, 2005, and 40 CFR Part 85, Subpart T and 40 CFR Part 86, Subparts A, D, I, and N. All existing regulatory language is indicated by plain type. Staff's originally proposed additions are shown in underlined text. Staff's originally proposed deletions are shown in strikeout. Staff's suggested modifications to the original proposal are shown in double underline to indicate additions and double strikeout to indicate deletions. The newly modified text is shown in shaded bold double-underline to indicate additions and shaded bold double strikeout to indicate deletions. Sections that have been included in their entirety are set forth with the section number and title. California provisions that replace specific federal language provisions are denoted by the words "DELETE" for the federal language and "REPLACE WITH" or "ADD" for the California language. The symbols "\*\*\*\*\*" and "..." mean that the remainder of the CFR text for a specific section is not shown in these procedures but has been incorporated by reference, unchanged. CFR sections that are not listed are not part of the test procedures. If there is any conflict between the provisions of this document and the California Health and Safety Code, Division 26, or Title 13 of the California Code of Regulations, the Health and Safety Code and Title 13 apply.

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CALIFORNIA EMISSION STANDARDS AND TEST PROCEDURES FOR NEW 2000 AND LATER TIER 1, TIER 2, AND TIER 3 OFF-ROAD COMPRESSION-IGNITION ENGINES

The following provisions of Part 89, Title 40, Code of Federal Regulations, as adopted or amended by the U. S. Environmental Protection Agency on the date listed, are adopted and incorporated herein by this reference for 2000 model year and later off-road compression-ignition engines subject to the requirements of the California Code of Regulations, Title 13, Section 2423(b)(1)(A), as the California Emission Standards and Test Procedures for New 2000 and Later Tier 1, Tier 2, and Tier 3 Off-Road Compression-Ignition Engines, except as altered or replaced by the provisions set forth below.

Part 89 – CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES

SOURCE: 63 FR 56967, October 23, 1998, and as amended in 69 FR 38957, June 29, 2004, and 70 FR 40444, July 13, 2005, unless otherwise noted.

Subpart A – General.

89.1 Applicability.

\* \* \* \* \*

(b)(6) DELETE, REPLACE WITH:

*Tier 4 Engines.* This part is not applicable to engines that are subject to the emission standards in the California Code of Regulations, Title 13, Section 2423(b)(1)(B).

## (c) DELETE, REPLACE WITH:

As an alternative to the otherwise applicable requirements of the California Code of Regulations, Title 13, Section 2430 (et. seq.), manufacturers of off-road liquefied petroleum gas or natural gas spark-ignition engines with rated power greater than or equal to 250 kilowatts may instead obtain an Executive Order for these engines by certifying them to the requirements of the California Code of Regulations, Title 13, Section 2420 (et. seq.), and these 2000 Plus Limited Test Procedures.

89.2 Definitions.

#### ADD:

40 CFR part 1039 means Part 1039 and applicable subparts of the "2008 and Later Test Procedures" when referenced in unrevised sections.

#### ADD:

40 CFR part 1065 means Part 1065 and applicable subparts of the "2008 and Later Test Procedures" when referenced in unrevised sections.

#### ADD:

40 CFR part 1068 means Part 1068 and applicable subparts of the "2008 and Later Test procedures" when referenced in unrevised sections.

\* \* \* \* \*

"Act" DELETE.

\* \* \* \* \*

"Administrator" DELETE,

REPLACE WITH:

"Administrator" means the Executive Officer of the Air Resources Board (or the Executive Officer's designee).

\* \* \* \* \*

#### ADD:

"ARB" means the California Air Resources Board.

#### ADD:

"Assistant Administrator for Air and Radiation" means the Executive Officer of the Air Resources Board (or the Executive Officer's designee).

#### ADD:

"Assistant Administrator for Enforcement" means the Executive Officer of the Air Resources Board (or the Executive Officer's designee).

\* \* \* \* \*

#### ADD:

"Certificate of conformity" means an Executive Order issued in accordance with the California Health and Safety Code, Division 26, Part 5. "Certification" DELETE, REPLACE WITH:

"Certification" means, with respect to new off-road compression-ignition engines, obtaining an Executive Order for an engine family complying with the off-road engine emission standards and requirements specified in the California Code of Regulations, Title 13, Section 2423.

#### ADD:

"Certified configuration" or "certified emissions configuration" means the assembled state of an engine that is equipped with a complete set of emission-related components and systems that are equivalent from an emissions standpoint (i.e., tolerances, calibrations, and specifications) to those components and systems that (A) were originally installed on the engine when it was issued an Executive Order, or (B) have been approved by the engine manufacturer to supersede any of the original emission-related components and systems for that engine, or (C) are direct replacement parts equaling or exceeding the emissions-related performance of the original or superseded components and systems.

#### ADD:

"Chief, Selective Enforcement Auditing Section" means Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, California 91731.

#### ADD:

"Clean Air Act" or the "Act" means California Health and Safety Code, Division 26, and corresponding regulations, except where the context indicates otherwise.

"Compression-ignition" DELETE, REPLACE WITH:

"Compression-ignition engine" means a type of engine with operating characteristics significantly similar to the theoretical Diesel combustion cycle. The non-use of a throttle to regulate intake flow for controlling power during normal operation is indicative of a compression-ignition engine. A compression-ignition engine may be petroleum-fueled (i.e., diesel-fueled) or alternate-fueled. All engines and equipment that fall within the scope of the preemption of Section 209(e)(1)(A) of the Federal Clean Air Act (42 U.S.C. 7543(e)(1)(A)), as amended, and as defined by regulation of the Environmental Protection Agency, are specifically not included within this category.

\* \* \* \* \*

#### ADD:

"Director, Engine Programs and Compliance Division" or "Engine Programs and Compliance Division of the EPA" means Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, California 91731.

"EPA enforcement officer" DELETE, REPLACE WITH:

"EPA enforcement officer" means an "ARB enforcement officer," (or "ARB") which means any employee of the Air Resources Board so designated in writing by the Executive Officer of the Air Resources Board or by the Executive Officer's designee.

\* \* \* \* \*

"Model year" DELETE,

**REPLACE WITH:** 

"Model year" means the manufacturer's annual production period, which includes January 1 of a calendar year or if the manufacturer has no annual production period, the calendar year.

"Nonroad engine" DELETE,

REPLACE WITH:

"Nonroad engine" means an off-road compression-ignition engine.

"Nonroad equipment" DELETE,

**REPLACE WITH:** 

"Nonroad equipment" means equipment powered by off-road compression-ignition engines.

"Nonroad vehicle" DELETE,

REPLACE WITH:

"Nonroad vehicle" means a vehicle that is powered by an off-road compression-ignition engine.

\* \* \* \* \*

#### ADD:

"Off-road compression-ignition engine" means:

- (a) Except as specified in paragraph (b) of this definition, an off-road compression-ignition engine is any internal combustion engine:
  - (i) in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function and is primarily used off the highways (such as garden tractors, off-highway mobile cranes and bulldozers); or
  - in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or
  - (iii) that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability

include, but are not limited to wheels, skids, carrying handles, dolly, trailer, or platform.

- (b) An internal combustion engine is not an off-road compression-ignition engine if:
  - (i) the engine is used to propel a vehicle subject to the emissions standards contained in Title 13, California Code of Regulations, Sections1950-1978, or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the federal Clean Air Act (42 U.S.C. 7521); or
  - (ii) the engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the 1990 Clean Air Act (42 U.S.C. 7511); or
  - the engine otherwise included in paragraph (a)(iii) of this definition (iii) remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at a single location approximately three months (or more) each year. This paragraph does not apply to an engine after the engine is removed from the location.

\* \* \* \* \*

#### ADD:

ADDENDUM: The definitions in the California Health and Safety Code and in Title 13, California Code of Regulations, Section 2421 shall apply.

89.3	Acronyms and abbreviations.					
	*	*	*	*	*	
ADD: ARB – Air Re	esou	ırces	в Во	ard.		
	*	*	*	*	*	
89.4	[Re	serv	/ed]			

89.5 Table and figure numbering; position.

\* \* \* \* \*

89.6 Reference materials.

(a) DELETE,

REPLACE WITH:

"Incorporation by reference. The documents in paragraph (b) of this section are incorporated by reference.

\* \* \* \* \*

(3) DELETE.

89.7 Treatment of confidential information.

DELETE,

**REPLACE WITH:** 

Any manufacturer may assert that some or all of the information submitted pursuant to Title 13, California Code of Regulations, Division 3, Chapter 9, Article 4 (Off-Road Compression-Ignition Engines and Equipment) is entitled to confidential treatment as provided by Title 17, California Code of Regulations, Sections 91000-91022.

Appendix A to Subpart A – State Regulation of Nonroad Internal Combustion Engines

\* \* \* \* \*

[62 FR 67736, December 30, 1997]

Subpart B – Emission Standards and Certification Provisions.

89.101 Applicability.

\* \* \* \* \*

89.102 Effective dates, optional inclusion, flexibility for equipment manufacturers.

## (a) DELETE, REPLACE WITH:

This subpart applies to all off-road compression-ignition engines—described in the California Code of Regulations, Title 13, Section 2420 subject to the emission standards listed in the California Code of Regulations, Title 13, Section 2423(b)(1)(A):

\* \* \* \* \*

# (d) Introductory text DELETE, REPLACE WITH:

Implementation flexibility for equipment and vehicle manufacturers and post-manufacture marinizers. For a limited time, off-road equipment and vehicle manufacturers and post-manufacture marinizers may produce equipment with engines that are subject to less stringent emission standards than required by this part, subject to the requirements of paragraph (e) of this section. The following allowances apply separately to each engine power category subject to standards under 89.112:

# (d)(1)(i) DELETE, REPLACE WITH:

Equipment rated at or above 37 kW. A manufacturer may produce equipment and vehicles with engines rated at, or above, 37 kW that are exempted from meeting current model year emission standards for a portion of its California-directed production volume. These percent-of-production flexibility allowances must be used within the seven years immediately following the date on which Tier 2 engine standards first apply to engines used in such equipment and vehicles, provided that the seven-year sum of the U.S.-directed portion of the manufacturer's percent-of-production flexibility allowances does not exceed 80 percent-of-production flexibility allowances does not exceed expressed in <a href="mailto:cumulative">cumulative</a> yearly percentage increments, and provided that all such equipment and vehicles contain only engines that have been certified to <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all such equipment and vehicles contain only engines that have been certified to <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all such equipment and vehicles contain only engines that have been certified to <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all such equipment and vehicles contain only engines that have been certified to <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all such equipment and vehicles contain only engines that have been certified to <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all <a href="mailto:qumulative">qumulative</a> yearly percentage increments, and provided that all <a href="mailto:qumulative">qumulative</a> yearly percentage increments.

(d)(1)(ii) DELETE, REPLACE WITH: Equipment rated under 37kW and subject to the standards in California Code of Regulations, Title 13, Section 2423(b)(1)(A). A manufacturer or post-manufacture marinizer may produce equipment and vehicles and marine engines with engines rated under 37 kW that are exempt from meeting current model year emission standards for a portion of its California-directed production volume. These percent-of-production flexibility allowances must be used within the seven years immediately following the date on which Tier 1 engine standards first apply to engines used in such equipment and vehicles and marine engines, provided that the seven-year sum of the U.S.-directed portion of the manufacturer's percent-of-production flexibility allowances does not exceed 80 percent—of-a single year's national production by the manufacturer, expressed in cumulative yearly percentage increments;

(e)(1) DELETE, REPLACE WITH: (2423(e)(1) – duplicate text)

\* \* \* \* \*

#### (f) DELETE, REPLACE WITH:

The language in California Code of Regulations, Title 13, Section 2423(f) shall apply.

### (g) DELETE, REPLACE WITH:

Allowance for the production of engines. To meet the demand for engines created under paragraph (d), (f), or (h) of this section, engine manufacturers may produce engines that do not meet current year emission requirements-without obtaining permission from the ARB prior to production. However, engine manufacturers must receive written assurance from each equipment manufacturer, prior to production, that a cortain number of these engines are needed for the equipment manufacturer's equipment flexibility allowances. Engine manufacturers shall provide to the Executive Officer annually, as part of the certification application, a list of the equipment manufacturers requesting such engines for their equipment flexibility allowances. The list shall include the equipment manufacturers' names, engine models, and estimated national production volumes, and a copy of the original correspondence requesting the flexibility engines. Notwithstanding, all engines produced for sale in California under either of the transitional flexibility provisions for equipment manufacturers, starting January 1, 20067, must be covered by an Executive Order. The Executive Order need not be current for the year in which the engine is used as a flexibility allowance, but may have been issued previously so long as the engine was certified to the standards required by the applicable flexibility

prevision. To obtain an Executive Order for these engines, the engine manufacturer must comply with the following:

- (1) Prior to the start of production, submit a letter to the Chief of the Mobile Source Operations Division, or designee, requesting certification for flexibility engines intended for sale in California, and
- (2) Provide written assurance that the flexibility engines to be produced will be identical in all material respects to those for which a valid Executive Order has been issued in a previous model year. The engine family name of the previously certified engine family must be included in the manufacturer's request for certification.

<u>Upon determination that the conditions in paragraphs (1) and (2) have been satisfied, the engine manufacturer shall be provided with an Executive Order covering the requested flexibility engine families for the current model year. The engine family names included in the Executive Order shall either be the same as, or a subset of the previously certified engine family names, and will remain the same for as long as the engines continue to qualify as flexibility allowances regardless of model year. These engine family names shall be used by the engine manufacturer to comply with the labeling requirements of 2423(d)(5)(A).</u>

\* \* \* \* \*

89.103 Definitions.

DELETE.

**REPLACE WITH:** 

The definitions in subpart A apply to this subpart. All terms not defined herein or in subpart A have the meaning given them in the California Health and Safety Code and the California Code of Regulations, Title 13.

89.104 Useful life, recall, and warranty periods.

\* \* \* \* \*

89.105 Certificate of conformity.

DELETE,

REPLACE WITH:

Every manufacturer of a new off-road compression-ignition engine must obtain an Executive Order covering the engine family, as described in Section 89.116 of this Subpart. The Executive Order must be obtained from the Executive Officer prior to selling, offering for sale, introducing into commerce, or importing into California the new off-road compression-ignition engine for each model year.

89.106 Prohibited controls.

\* \* \* \* \* \*

89.107 Defeat devices.

\* \* \* \* \* \*

89.108 Adjustable parameters, requirements.

\* \* \* \* \*

89.109 Maintenance instructions and minimum allowable maintenance intervals.

\* \* \* \* \* \*

89.110 Emission control information label.

\* \* \* \* \* (b)(10) DELETE,

REPLACE WITH:
The statement: "This engine conforms to (model year) California and U.S. EPA regulations for off-road compression-ignition engines.";

\* \* \* \* \*

#### ADD:

(e) Labeling requirements. Except for engines used in flexibility allowances prior to January 1, 200<u>67</u>, engine manufacturers shall meet the labeling requirements provided in <u>the California Code of Regulations</u>, <u>Title 13</u>, Section 2424 <u>with the following substitutions:</u>.

For flexibility engines meeting previous year emission requirements.

However, the engine manufacturer shall substitute the following exatement must be substituted for the statement of compliance required in Sections 2424(c)(1)(E)6 and 2424(c)(2):

"THIS ENGINE BELONGS TO FAMILY . AND MEETS COMPLIES WITH CALIFORNIA EMISSION STANDARDS REQUIREMENTS UNDER 13 CCR 2423(d). SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN FOR THE EQUIPMENT FLEXIBILITY PROVISIONS CITED MAY BE A VIOLATION OF STATE LAW SUBJECT TO CIVIL PENALTY." [Insert Engine Family Name]

For flexibility engines less than 37 kW and not subject to emission requirements, the engine manufacturer shall substitute the following for the statement of compliance required in Section 2424(c)(1)(E)6:

"THIS ENGINE QUALIFIES FOR USE IN EQUIPMENT RATED BELOW
37 KW BY PROVISION OF 13 CCR 2423(d). SELLING OR INSTALLING
THIS ENGINE FOR ANY PURPOSE OTHER THAN FOR THE
EQUIPMENT FLEXIBILITY PROVISIONS CITED MAY BE A VIOLATION
OF CALIFORNIA LAW SUBJECT TO CIVIL PENALTY."

As an alternative, flexibility engine manufacturers offering proof to the Executive Officer that the otherwise required statements of compliance in this subsection would be unduly burdensome or costly to implement, may instead use the following:

"THIS ENGINE CONFORMS TO CALIFORNIA OFF-ROAD COMPRESSION-IGNITION ENGINE REGULATIONS UNDER 13 CCR 2423(d)." [Insert Engine Family Name if Certified]

The<u>se</u> revised statement<u>s</u> of compliance do<u>es</u> not preclude the referencing of similar federal requirements that would be satisfied simultaneously by meeting the provisions of Section 2423(d). Furthermore, the Executive Officer may, upon request, approve alternate labeling specifications <u>provided that they meet the intent of that are equivalent to the specifications in this <u>requirement</u> subsection.</u>

89.111 Averaging, banking, and trading of exhaust emissions.

\* \* \* \* \*

89.112 Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emission standards.

\* \* \* \* \*

#### (c) DELETE,

#### REPLACE WITH:

Exhaust emission of particulate matter is measured using the PM and Test Cycle Limited Procedures.

\* \* \* \* \*

## (f)(3) DELETE,

REPLACE WITH:

Test procedures. NOx, NMHC, and PM emissions are measured using the procedures set forth in 40 CFR part 861065, subpart N (July 13, 19992005), which is incorporated by reference, in lieu of the procedures set forth in subpart E

of this part. CO emissions may be measured using procedures set forth either in 40 CFR part **861065**, **subpart N**, or in subpart E of this part. Manufacturers may use an alternate procedure to demonstrate the desired level of control if approved in advance by the Executive Officer. Engines meeting the requirements to qualify as Blue Sky Series engines must be capable of maintaining a comparable level of emission control when tested using the procedures set forth in paragraph (c) of this section and subpart E of this part. The numerical emission levels measured using the procedures from subpart E of this part may be up to 20 percent higher than those measured using procedures from 40 CFR part **861065**, subpart N (July 1**3**, **19992005**), and still be considered comparable.89.113 Smoke emission standard.

89.114 Special and alternate test procedures. 89.115 Application for certificate. 89.116 Engine families. 89.117 Test fleet selection. 89.118 Deterioration factors and service accumulation. 89.119 Emission tests. (a)(1)(ii) DELETE, **REPLACE WITH:** PM and Test Cycle Limited Procedures, and (a)(1)(iii) DELETE, REPLACE WITH: 40 CFR part 86, subpart I (July 1, 1999).

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89.120 Compliance with emission standards. 89.121 Certificate of conformity effective dates. 89.122 Certification. 89.123 Amending the application and certification of conformity. 89.124 Record retention, maintenance, and submission. 89.125 Production engines, annual report. 89.126 Denial, revocation of certificate of conformity. 89.127 Request for hearing. DELETE, **REPLACE WITH:** A manufacturer may request a hearing on an Executive Officer's decision regarding certification, as specified in Title 17, California Code of Regulations, Division3, Chapter 1, Subchapter 1.25, Articles 1 and 2. 89.128 Hearing procedures. DELETE. 89.129 Right of entry.

89.130 Rebuild practices.

#### DELETE,

#### **REPLACE WITH:**

The provisions in Section 1068.120 of the "2008 and Later Test Procedures" shall apply for the rebuilding of engines that are subject to the requirements of the California Code of Regulations, Title 13, Section 2423(b)(1)(A), except Tier 1 engines rated at or above 37 kW. The provisions in the California Code of Regulations, Title 13, Section 2423(I), shall apply for labeling rebuilt engines.

\* \* \* \* \*

## ADD:

(g) The language in California Code of Regulations, Title 13, Section 2423(I) shall apply.

Subpart C -	Ave	ragi	ng, l	Banl	king, and Trading Provisions.
89.201	Ар	plica	abilit	y.	
	*	*	*	*	*
89.202	De	finiti	ons.		
	*	*	*	*	*
89.203	Ge	nera	al pr	ovisi	ions.
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89.204		erag	jing.		
	*	*	*	*	*
89.205	Ва	nkin	g.		
	*	*	*	*	*
89.206	Tra	adin	g.		
	*	*	*	*	*
89.207	Cre	edit	calc	ulati	on.
	*	*	*	*	*
89.208	Lal	belir	ıg.		
	*	*	*	*	*
89.209	Се	rtific	atio	n.	
	*	*	*	*	*
89.210	Ма	inte	nan	ce o	f records.
	*	*	*	*	*
89.211	En	d-of	-yea	r an	d final reports.
	*	*	*	*	*
89.212	No	tice	of o	ppo	rtunity for hearing.

## DELETE, REPLACE WITH:

A manufacturer may request a hearing on an Executive Officer's decision regarding certification, as specified in Title 17, California Code of Regulations, Division 3, Chapter 1 Subchapter 1.25, Articles 1 and 2.

Subpart D -	Emission Test Equipment Provisions
89.301	Scope; applicability.
	* * * * *
89.302	Definitions.
	* * * * *
89.303	Symbols/abbreviations.
	* * * * *
89.304	Equipment required for gaseous emissions; overview.
	* * * * *
89.305	Equipment measurement accuracy/calibration frequency.
	* * * * *
89.306	Dynamometer specifications and calibration weights.
	* * * * *
89.307	Dynamometer calibration.
	* * * * *
89.308	Sampling system requirements for gaseous emissions.
	* * * * *
89.309	Analyzers required for gaseous emissions.
	* * * * *
89.310	Analyzer accuracy and specifications.
	* * * * *
89.311	Analyzer calibration frequency.

89.312	Analytical gases.					
	*	*	*	*	*	
89.313	Initi	ial c	alibı	atio	n of analyzers.	
	*	*	*	*	*	
89.314	Pre	- ar	nd po	ost-t	est calibration of analyzers.	
	*	*	*	*	*	
89.315	Ana	alyz	er be	ench	n checks.	
	*	*	*	*	*	
89.316	Ana	alyz	er le	aka	ge and response time.	
	*	*	*	*	*	
89.317	NO	х сс	nve	rter	check.	
	*	*	*	*	*	
89.318	Ana	alyz	er in	terfe	erence checks.	
	*	*	*	*	*	
89.319	Нус	droc	arbo	on a	nalyzer calibration.	
	*	*	*	*	*	
89.320	Car	bor	n mo	noxi	ide analyzer calibration.	
	*	*	*	*	*	
89.321	Oxi	des	of r	itro	gen analyzer calibration.	
	*	*	*	*	*	
89.322	Car	bor	dio	xide	analyzer calibration.	

89.323	ND	IR a	ınaly	/zer	calibration.
	*	*	*	*	*
89.324	Ca	libra	tion	of o	ther equipment.
	*	*	*	*	*
89.325	Eng	gine	inta	ıke a	air temperature measurement.
	*	*	*	*	*
89.326	En	gine	inta	ike a	air humidity measurement.
	*	*	*	*	*
89.327	Ch	arge	coc	oling	
	*	*	*	*	*
89.328	Inle	et an	ıd ex	khau	ıst restrictions.
	*	*	*	*	*
89.329	En	gine	coo	ling	system.
	*	*	*	*	*
89.330	Luk	orica	iting	oil a	and test fuels.
	*	*	*	*	*
89.331	Tes	st cc	ndit	ions	i.
	*	*	*	*	*
Appendix A to Subpart D					
	*	*	*	*	*
Appendix B to Subpart D					

Subpart E – Exhaust Emission Test Procedures.

89.401 Scope; availability.

\* \* \* \* \*

89.402 Definitions.

\* \* \* \* \*

89.403 Symbols/abbreviations.

\* \* \* \* \*

89.404 Test procedure overview.

\* \* \* \* \*

## (b) DELETE,

#### **REPLACE WITH:**

The test is designed to determine the brake-specific emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, and particulate matter. For more information on particulate sampling see the PM and Test Cycle Limited Procedures. The test cycles consist of various steady-state operating modes that include different combinations of engine speeds and loads. These procedures require the determination of the concentration of each pollutant, exhaust volume, the fuel flow (raw analysis) and the power output during each mode. The measured values are weighted and used to calculate the grams of each pollutant emitted per kilowatt-hour (g/kW-hr).

89.405 Recorded information.

\* \* \* \* \*

89.406 Pre-test procedures.

\* \* \* \* \*

89.407 Engine dynamometer test run.

89.408	Post-test procedures.					
	* * * * *					
89.409	Data logging.					
	* * * * *					
89.410	Engine test cycle.					
	* * * * *					
89.411	Exhaust sample procedure – gaseous components.					
	* * * * *					
89.412	Raw gaseous exhaust sampling and analytical system description.					
	* * * * *					
89.413	Raw sampling procedures.					
	* * * * *					
89.414	Air flow measurement specifications.					
	* * * * *					
89.415	Fuel flow measurement specifications.					
	* * * * *					
89.416	Raw exhaust gas flow.					
	* * * * *					
89.417	Data evaluation for gaseous emissions.					
	* * * * *					
89.418	Raw emission sampling calculations.					

89.419 Dilute gaseous exhaust sampling and analytical system description. 89.420 Background sample. 89.421 Exhaust gas analytical system; CVS bag sample. Dilute sampling procedures – CVS calibration. 89.422 89.423 [Reserved] 89.424 Dilute emission sampling calculations. \* \* \* \* \* [Reserved] 89.425 Appendix A to Subpart E Appendix B to Subpart E

Subpart F – S	Sele	ctive	e En	forc	ement Auditing.
89.501	App	olica	bility	y.	
	*	*	*	*	*
89.502	Def	finiti	ons.		
	*	*	*	*	*
89.503	Tes	st Oı	rders	S.	
	*	*	*	*	*
89.504	Tes	sting	by ·	the A	Administrator.
	*	*	*	*	*
89.505	Ма	inter	nand	ce of	records; submittal of information.
	*	*	*	*	*
ADD: (a)(2)(viii)					
					y upon request emission test results from engines certified in California.
	*	*	*	*	*
89.506	Rig	ht o	f en	try a	nd access.
	*	*	*	*	*
89.507	Sar	mple	e sel	ectic	on.
	<b>4</b>	4		4	

89.508 Test Procedures.

## (a)(1) DELETE,

#### **REPLACE WITH:**

For off-road engines subject to the provisions of this subpart, the prescribed test procedures are the engine 8-mode test procedure as described in subpart E of this part, the federal smoke test procedure as described in 40 CFR part 86, subpart I (July 1, 1999), and the particulate test procedure as adopted in the PM and Test Cycle Limited Procedures.

\* \* \* \* \*

89.509 Calculation and reporting of test results.

\* \* \* \* \*

89.510 Compliance with acceptable quality level and passing failing criteria

for selective enforcement audits.

\* \* \* \* \*

89.511 Suspension and revocation of certificates of conformity.

\* \* \* \* \*

89.512 Request for public hearing.

#### DELETE,

#### **REPLACE WITH:**

A manufacturer may request a hearing on an Executive Officer's decision regarding certification, as specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1.25, Articles 1 and 2.

89.513 Administrative procedures for public hearing.

DELETE.

89.514 Hearing procedures.

DELETE.

89.515 Appeal of hearing decision.

DELETE.

89.516 Treatment of confidential information.

\* \* \* \* \*

Appendix A to Subpart F of Part 89. Sampling Plans for Selective Enforcement Auditing of Nonroad Engines.

Subpart G – Importation of Nonconforming Nonroad Engines.					
89.601	Applicability.				
	* * * * *				
89.602	Definitions.				
	* * * * *				
89.603	General requirements for importation of nonconforming nonroad engines.				
	* * * * *				
89.604	Conditional admission.				
	* * * * *				
89.605	Final admission of certified nonroad engines.				
	* * * * *				
89.606	Inspection and testing of imported nonroad engines.				
	* * * * *				
89.607	Maintenance of independent commercial importer's records.				
	* * * * *				
89.608	"In Use" inspections and recall requirements.				
	* * * * *				
89.609	Final admission of modification nonroad engines and test nonroad engines.				
	* * * * *				
89.610	Maintenance instructions, warranties, emission labeling.				
	* * * * *				

89.611 Exemptions and exclusions.

\* \* \* \* \* \*

89.612 Prohibited acts; penalties.

\* \* \* \* \*

89.613 Treatment of confidential information.

\* \* \* \* \* \*

## 89.614 Importation of partially complete engines.

## Subpart H - Recall Regulations

89.701 Applicability.

\* \* \* \* \*

89.702 Definitions.

\* \* \* \* \*

89.703 Applicability of part 85, subpart S.

#### (a) DELETE,

#### **REPLACE WITH:**

Off-road engines subject to provisions of subpart B of this part are subject to recall regulations specified in Title 13, California Code of Regulations, Chapter 2, Articles 2.1 - 2.4, Sections 2111 - 2141.

## (b)-(d) DELETE.

#### (e) DELETE,

#### **REPLACE WITH:**

For purposes of this section, reference to "vehicles or engines" throughout Title 13 is replaced by reference to "engines."

## Subpart I – Emission Defect Reporting Requirements

89.801 Applicability.

\* \* \* \* \*

89.802 Definitions.

\* \* \* \* \*

89.803 Applicability of part 85, subpart T.

#### (a) DELETE,

#### **REPLACE WITH:**

Off-Road engines subject to provisions of subpart B of this part are subject to emission defect reporting requirements specified in 40 CFR part 85, subpart T (July 1, 1999), which is incorporated by reference, except for the items set forth in this section.

## 89.901 Applicability. Definitions. 89.902 \* \* \* \* \* Application of section 216(10) of that Act. 89.903 Who may request an exemption. 89.904 Testing exemption. 89.905 Manufacturer-owned exemption and precertification exemption. 89.906 \* \* \* \* \* 89.907 Display exemption. \* \* \* \* \* 89.908 National security exemption. \* \* \* \* \* 89.909 Export exemptions. 89.910 Granting of exemptions. 89.911 Submission of exemption requests.

Subpart J – Exemption Provisions

89.912 Treatment of confidential information.

\* \* \* \* \*

89.913 What provisions apply to engines certified under the motor-vehicle program?

DELETE.

89.914 What provisions apply to vehicles certified under the motor-vehicle program?

DELETE.

89.915 Staged-assembly exemption.

Subpart K – General Enforcement Provisions and Prohibited Acts

89.1001 Applicability.

\* \* \* \* \*

89.1002 Definitions.

\* \* \* \* \*

89.1003 Prohibited acts.

\* \* \* \* \*

# (b)(7)(iii) DELETE, REPLACE WITH:

The replacement engine is clearly labeled with If the engine being replaced was not certified to any emission standards under the California Code of Regulations, Title 13, Section 2423(b)(1)(A), the replacement engine must have a permanent label with your corporate name and trademark and the following language, or similar alternate language approved by the Executive Officer:

"THIS ENGINE DOES NOT COMPLY WITH CALIFORNIA AND FEDERAL OFF-ROAD OR ON-HIGHWAY EMISSION REQUIREMENTS. SALE OR INSTALLATION OF THIS ENGINE FOR ANY PURPOSE OTHER THAN AS A REPLACEMENT ENGINE FOR AN ENGINE MANUFACTURED PRIOR TO JANUARY 1 [INSERT APPROPRIATE YEAR] IS A VIOLATION OF CALIFORNIA AND FERDERAL LAW SUBJECT TO CIVIL PENALTY"; and.

## (b)(7)(iv) DELETE, REPLACE WITH:

If the engine being replaced was certified to emission standards less stringent than those in effect when you produce the replacement engine, the replacement engine must have a permanent label with your corporate name and trademark and the following language, or similar alternate language approved by the Executive Officer:

"THIS ENGINE COMPLIES WITH CALIFORNIA OFF-ROAD AND U.S. EPA NONROAD EMISSION REQUIREMENTS FOR [Insert appropriate year reflecting when the Tier 1 or Tier 2 standards for the replaced engine began to apply] ENGINES UNDER 13 CCR 2423(j) AND 40 CFR 89.1003(b)(7). SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN TO REPLACE AN OFF-ROAD ENGINE BUILT BEFORE JANUARY 1 [Insert appropriate year reflecting when the next tier of emission standards began

# to apply] MAY BE A VIOLATION OF CALIFORNIA AND FEDERAL LAW SUBJECT TO CIVIL PENALTY."

\* \* \* \* \*

89.1004 General enforcement provisions.

\* \* \* \* \*

89.1005 Injunction proceedings for prohibited acts.

DELETE,

**REPLACE WITH:** 

Under Section 43017 of the California Health and Safety Code, the Air Resources Board may enjoin any violation of any provision of Section 89.1003(a).

89.1006 Penalties.

#### (a) DELETE,

**REPLACE WITH:** 

*Violations*. A violation of the requirements of this subpart is a violation of the applicable provisions of the California Health and Safety Code, Division 26, and corresponding regulations, and is subject to the penalty provisions thereunder.

#### (a)(1) DELETE,

#### **REPLACE WITH:**

A person who violates Section 89.1003(a)(1), (a)(4), or (a)(6), or a manufacturer or dealer who violates Section 89.1003(a)(3)(ii) is subject to a civil penalty as specified in the California Health and Safety Code, Division 26, and corresponding regulations.

#### (a)(2) DELETE,

#### **REPLACE WITH:**

A person other than a manufacturer or dealer who violates Section 89.1003(a)(3)(i) or any person who violates Section 89.1003(a)(3)(ii) is subject to a civil penalty as specified in the California Health and Safety Code, Division 26, and corresponding regulations.

\* \* \* \* \*

#### (a)(5) DELETE,

#### **REPLACE WITH:**

A person who violates Section 89.1003(a)(2) or (a)(5) is subject to a civil penalty as specified in the California Health and Safety Code, Division 26, and corresponding regulations.

## (a)(6) DELETE.

(b) DELETE,

REPLACE WITH:

*Civil Actions*. Any person who violates any provision of this subpart is subject to a civil action to assess and recover any civil penalty under paragraph (a) of this section.

(c) DELETE.

89.1007 Warranty provisions.

\* \* \* \* \*

89.1008 In-use compliance provisions.

DELETE.

89.1009 What special provisions apply to branded engines?