

**ATTACHMENT G**

**California's Small Off-Road Engine and Tier 4 Off-Road Compression-Ignition Engine Regulations and Test Procedures and Amendments to the Exhaust Emission Certification Test Fuel for Off-Road Spark-Ignition Engines, Equipment, and Vehicles**

DECEMBER 16, 2011

**Staff's Suggested Modifications to the Original Proposal**

This attachment shows staff's suggested modifications to the originally proposed amendments. The original proposed amendments are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions to the existing language. The suggested modifications to both the existing language and the language in the originally proposed amendments are shown in double-underline to indicate additions and ~~double-strikeout~~ to indicate deletions, and with the symbols " \* \* \* \* \*" to indicate omitted text where no modifications are proposed. All proposed modifications will be made available to the public for a fifteen-day comment period prior to final adoption.

**CHANGES TO CLARIFY TEST PROCEDURE CITATIONS**

The proposed amendments involve the "retirement" of some existing test procedures and the modification and "renaming" of some other test procedures. In certain instances, staff inadvertently cited specific test procedure titles incorrectly. Accordingly, staff is proposing modifications to correct these clerical errors.

**Modifications to the Proposed Regulation Order for Small Off-Road Engines**

On page A-1 of Appendix A to the Initial Statement of Reasons, the "Proposed Regulation Order; Small Off-Road Engines," includes references for the proposed adoption of new Small Off-Road Engines (SORE) test procedures, but incorrectly cites the titles of these test procedures. The correctly proposed amendments to these sections are shown below.

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

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(b)(2)(B) The following voluntary exhaust emission standards, which apply to all certification and compliance testing. Blue Sky Series engines shall not be included in the averaging, banking, and trading program. Zero-emission small off-road engines may certify to the Blue Sky Series emission standards. Manufacturers of zero-emission small off-road equipment are not required to perform emissions testing, but must file an application of certification and comply with the administrative requirements outlined as applicable, in the "California Exhaust Emission Standards and Test Procedures for

~~2005-2012 and Later Small Off-Road Engines,” adopted July 26, 2004, and as last amended February 24, 2010 <insert date of amendment>; or, the collective “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1054),” adopted <insert date of adoption>; and, the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065),” adopted <insert date of adoption>; “California Exhaust Emission Standards and Test Procedures for 2013 and Later Small Off-Road Engines,” adopted <insert date of adoption>;~~ to certify their equipment for sale in California.

\* \* \* \* \*

(d) The test procedures for determining compliance with the standards for exhaust emissions from new small off-road engines are set forth as applicable, in the “California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines,” adopted March 20, 1992, and last amended July 26, 2004; or the “California Exhaust Emission Standards and Test Procedures for 2005-2012 and Later Small Off-Road Engines,” adopted July 26, 2004, and last amended February 24, 2010 <insert date of amendment>; or, the collective “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1054),” adopted <insert date of adoption>; and, the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065),” adopted <insert date of adoption>; “California Exhaust Emission Standards and Test Procedures for 2013 and Later Small Off-Road Engines,” adopted <insert date of adoption>; which ~~is~~ are incorporated herein by reference.

\* \* \* \* \*

On page A-2 of Appendix A to the Initial Statement of Reasons, the “Proposed Regulation Order: Small Off-Road Engines,” includes references for the proposed adoption of new SORE test procedures, but incorrectly cited the titles of these test procedures. The correctly proposed amendments to these sections are shown below.

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

\* \* \* \* \*

(a)(7) Engines randomly chosen from the selected engine family or subgroup. Each chosen engine must be tested as applicable, according to the “California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines” (“Emission Standards and Test Procedures”), adopted March 20, 1992, and last amended July 26, 2004; or the “California Exhaust Emission Standards and Test Procedures for 2005-2012 and Later Small Off-Road Engines,” adopted July 26, 2004, and last amended <insert date of amendment>; or, the collective “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road

Engines; Engine-Testing Procedures (Part 1054),” adopted <insert date of adoption>; and, the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065),” adopted <insert date of adoption> ~~“California Exhaust Emission Standards and Test Procedures for 2013 and Later Small Off Road Engines,” adopted <insert date of adoption>~~ as applicable, to determine its emissions. Unique specialty hardware and personnel normally necessary to prepare the engine for performance of the test as set forth in the Procedures must be supplied by the engine manufacturer within seven days after the request for such specialty hardware or personnel. Failure to supply this unique specialty hardware or personnel may not be used by the engine manufacturer as a cause for invalidation of the subsequent tests.

\* \* \* \* \*

### **Modifications to the Proposed Regulation Order for Large Spark-Ignition Engines**

On page C-2 of Appendix C to the Initial Statement of Reasons, the “Proposed Regulation Order; Large Spark-Ignition Engines,” includes a reference for the proposed adoption of new SORE test procedures, but incorrectly cited the titles of these test procedures. The correctly proposed amendment to this section is shown below.

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

\* \* \* \* \*

(d) (1) The test procedures for determining certification and compliance with the standards for exhaust emissions from new LSI engines with an engine displacement less than or equal to 1.0 liter sold in the state are set forth in “California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines,” as last amended July 26, 2004; ~~or “California Exhaust Emission Standards and Test Procedures for 2005-2012 and Later Small Off-Road Engines,” adopted July 26, 2004,~~ and last amended <insert date of amendment>; and, the collective “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1054),” adopted <insert date of adoption>; and, the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065),” adopted <insert date of adoption> ~~“California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off Road Engines, adopted <insert date of adoption>~~.

\* \* \* \* \*

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

On page E-1 of Appendix E to the Initial Statement of Reasons, the “Proposed Regulation Order; New Off-Highway Recreational Vehicles and Engines,” incorrectly indicated an amendment to the existing SORE test procedures cited in §2412(c)(2). The long-retired “California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines,” adopted March 20, 1992, and last amended July 26, 2004, is not included in the currently proposed amendments to the SORE category. Thus, the correct “last amended” date for these test procedures remains “July 26, 2004.”

In addition, staff is proposing another amendment to §2412(c)(2) for clarifying the proper test procedures citation for specifying that the new E10 test fuel is to be used for 2013 and later all-terrain vehicles utilizing the existing optional emission standards allowance. Accordingly, the proposed amendments to this subsection are shown below.

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

\* \* \* \* \*

(c)(1) The test procedures for determining certification and compliance with the standards for exhaust and evaporative emissions from new off-road motorcycles, all-terrain vehicles, and golf carts are set forth in “California Exhaust Emission Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines,” adopted November 23, 1994, and last amended ~~August 15, 2007~~<insert date of amendment>, which are hereby incorporated by reference herein and which in turn incorporate by reference Subparts E and F, Part 86, and Subparts C and F, Part 1051, Title 40, Code of Federal Regulations. Manufacturers of the following are not required to perform emissions testing, but must file an application of certification and comply with the administrative requirements outlined in the procedures to certify their vehicles for sale in California:

(A) Golf carts.

(B) Off-road motorcycles and all-terrain vehicles, and engines used in such vehicles, as described in subsection (f) below.

(2) The test procedures for determining certification and compliance with the standards for exhaust emissions from all-terrain vehicle engines (those engines utilizing the optional standards noted in (b) above) are set forth in “California Exhaust Emission Standards and Test Procedures for 1995-2004 Small Off-Road Engines,” adopted March 20, 1992, and last amended ~~July 26, 2004~~<insert date of amendment>. For 2013 and later model years, the test fuel requirements for engines utilizing such optional standards are specified in §1065.701, of the “California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines: Engine-Testing Procedures (Part 1065),” adopted <insert date of adoption>.

\* \* \* \* \*

## CHANGE TO ALIGN WITH FEDERAL SMALL ENGINE LABEL HEADING

### Modifications to the Proposed Regulation Order for Small Off-Road Engines

Staff inadvertently did not include a proposed alignment to the engine label heading content requirements in §2404(c)(4)(A). Specifically, staff had planned to propose an amendment to allow an additional label heading that states, "EMISSION CONTROL INFORMATION," and that would align with the small nonroad engine label heading content currently required by the United States Environmental Protection Agency. The correctly proposed amendment to this section is shown below.

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

\* \* \* \* \*

(c) Engine Label Content and Location.

\* \* \* \* \*

(4) The engine label must contain the following information:

(A) The label heading must read: "IMPORTANT ENGINE INFORMATION"; or "IMPORTANT EMISSION INFORMATION"; or "EMISSION CONTROL INFORMATION".

\* \* \* \* \*

## CHANGES TO THE MODEL-YEAR IMPLEMENTATIONS OF NEW E10 EXHAUST EMISSION CERTIFICATION TEST FUEL

The proposed amendments for the new E10 exhaust emission certification test fuel indicate that the implementation schedule for the mandatory use of this test fuel begins with the 2019 model year. This implementation schedule for the off-road categories was consistent with the new E10 test fuel implementation schedule that was expected to be proposed for the on-road motor vehicles. However, since the notice was published on October 28, 2011, the implementation schedule for mandatory use by on-road motor vehicles was changed to the 2020 model year. In order to maintain the desired consistency with the mandatory use on-road motor vehicle implementation schedule, the mandatory use requirement of the new E10 certification test fuel for the off-road categories needs to be changed to the 2020 model year, as well. Consequently, the period for an optional use of the new E10 certification test fuel for the off-road categories needs to also be changed from the 2013 – 2018 model years to the 2013 – 2019 model years. Accordingly, staff proposes to make these minor model-year changes in the test procedures of the SORE, LSI, retrofit LSI, recreational marine, and off-highway recreational vehicle test procedures.

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

On pages D-1 and D-2 of Appendix D to the Initial Statement of Reasons, the “Proposed Regulation Order: In-Use Compliance Requirements for Retrofits of Large Spark-Ignition Engines,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

§2783. Emissions Reduction Testing Requirements.

\* \* \* \* \*

(d) Test Fuel.

\* \* \* \* \*

(2) Gasoline-fueled, large spark-ignition engines that are tested during the 2013-~~2018~~ 2019 calendar years have the option of using the test fuel referenced in section 2783(d)(3) for demonstrating exhaust emission compliance with the requirements of this section.

(3) Gasoline-fueled, large spark-ignition engines that are tested during ~~2019~~2020 and later calendar years must be exhaust emission tested using a test fuel must that is consistent with the fuel specifications as outlined in title 13, section 1961.2; and, the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent

Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted <insert date of adoption>, and incorporated by reference herein. The test fuel specifications should remain consistent from batch to batch.

\* \* \* \* \*

§2784. Durability Demonstration Requirements.

\* \* \* \* \*

(c) Test Fuel.

\* \* \* \* \*

(2) Gasoline-fueled, large spark-ignition engines that are tested during the 2013-2018 2019 calendar years have the option of using the test fuel referenced in section 2784(c)(3) for demonstrating exhaust emission compliance with the requirements of this section.

(3) Gasoline-fueled, large spark-ignition engines that are tested during ~~2019~~2020 and later calendar years must be exhaust emission tested using a test fuel must that is consistent with the fuel specifications as outlined in title 13, section 1961.2; and, the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted <insert date of adoption>, and incorporated by reference herein. The test fuel specifications should remain consistent from batch to batch.

\* \* \* \* \*

### **Modifications to the Proposed Test Procedures, Part 1065, for Small Off-Road Engines**

On page 17 of Appendix I to the Initial Statement of Reasons, the “Proposed Test Procedures; Part 1065, Small Off-Road Engines,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

§1065.701 General requirements for test fuels.

(a) DELETE,  
REPLACE WITH:

(a) Certification test fuel.

\* \* \* \* \*

(2) For ~~2019~~2020 and later gasoline-fueled engines: The certification test fuel for emission testing must be consistent with the fuel specifications as outlined in title 13, section 1961.2 and the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted [insert adoption date], and incorporated by reference herein. The test fuel specifications must remain consistent from batch to batch.

(3) For 2013 – ~~2018~~2019 model-year gasoline-fueled engines, the manufacturer has the option to use the certification test fuel specified in §1065.701(a)(2).

\* \* \* \* \*

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

On page N-2 of Appendix N to the Initial Statement of Reasons, the “Proposed Test Procedures: Large Spark-Ignition Engines; 2007 and Later Model Years; Part 1065/1068,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

§1065.701 General requirements for test fuels.

\* \* \* \* \*

(2) For 2013-~~2018~~2019 model-year gasoline-fueled, large spark-ignition engines, the manufacturer has the option to use the fuel specified in (a)(3).

(3) For ~~2019~~2020 and later gasoline-fueled, large spark-ignition engines: The certification test fuel for exhaust emission testing must be consistent with the fuel specifications as outlined in title 13, section 1961.2 and the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted <insert adoption date>, and incorporated by reference herein. The test fuel specifications should remain consistent from batch to batch.

\* \* \* \* \*

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

On page O-2 of Appendix O to the Initial Statement of Reasons, the “Proposed Test Procedures; Large Spark-Ignition Engines: 2010 and Later Model Years; Part 1048,” indicates the incorrect implementation schedule for the optional and mandatory use of

the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

§1048.101 What exhaust emission standards must my engines meet?

\* \* \* \* \*

(e) Fuel ~~Types~~ and Test Fuel.

(1) Fuel ~~Types~~

\* \* \* \* \*

(2) Test Fuel.

\* \* \* \* \*

(B) For ~~2013-2018~~2019 model-year gasoline-fueled, large spark-ignition engines, the manufacturer has the option to use the fuel specified in (e)(2)(C).

(C) For ~~2019~~2020 and later gasoline-fueled, large spark-ignition engines: The certification test fuel for exhaust emission testing must be consistent with the fuel specifications as outlined in title 13, section 1961.2 and the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted <insert date of adoption>, and incorporated by reference herein. The test fuel specifications should remain consistent from batch to batch.

\* \* \* \* \*

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

On pages P-2 and P-3 of Appendix P to the Initial Statement of Reasons, the “Proposed Test Procedures: New Off-Highway Recreational Vehicles and Engines,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

86.513 - 90 Fuel and engine lubricant specifications. 54 FR 14544, Apr. 11, 1989.

(a) DELETE

REPLACE WITH:

(a)(1)(i) Gasoline having the following specifications will be used by the Administrator in exhaust emission testing. Gasoline having the following specifications or substantially equivalent specifications approved by the Administrator, shall be used by the manufacturer for emission testing except that the octane specifications do not apply.

\* \* \* \* \*

(ii) Additionally for the 2013-~~2018~~2019 model-year off-highway recreational vehicles, the manufacturer has the option to use the fuel specified in (a)(2) below.

(2) For ~~2019~~2020 and later model-year off-highway recreational vehicles: The certification test fuel for exhaust emission testing must be consistent with the fuel specifications as outlined in title 13, section 1961.2 and the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted <insert date of adoption>, and incorporated by reference herein. The test fuel specifications should remain consistent from batch to batch.

\* \* \* \* \*

### **Modifications to the Proposed Test Procedures for Recreational Marine Spark-Ignition Engines**

On pages Q-2 and Q-3 of Appendix Q to the Initial Statement of Reasons, the “Proposed Test Procedures: Recreational Marine Spark-Ignition Engines,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

#### Part III. Emission Test Equipment Provisions.

\* \* \* \* \*

#### 44. Lubricating Oil and Test Fuel.

\* \* \* \* \*

- (b) Test fuels – certification.
- (1) Petroleum-based fuels.

\* \* \* \* \*

(ii) Additionally for the 2013-~~2018~~2019 model-year spark-ignition marine engines, the manufacturer has the option to use the fuel specified in (b)(2) below.

(2) For ~~2019~~2020 and later model-year spark-ignition marine engines: The certification test fuel for exhaust emission testing must be consistent with the fuel specifications as outlined in title 13, section 1961.2 and the “California Exhaust Emission Standards and Test Procedures for 2015 and Subsequent Model Passenger Cars, Light Duty Trucks, and Medium Duty Vehicles,” adopted <insert adopted date>.

and incorporated by reference herein. The test fuel specifications should remain consistent from batch to batch.

\* \* \* \* \*

### **Modifications to the Summary & Rationale: Small Off-Road Engine Regulations**

On page S-36 of Appendix S to the Initial Statement of Reasons, the “Summary & Rationale: Small Off-Road Engine Regulations,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

#### Subpart H

§1065.701 The purpose of this section is to describe general requirements for test fuels. The proposed amendments to subsection 1065.701 (a) (2) are necessary in order to specify that the test fuel specifications will be consistent with the on-road motor vehicle E10 test fuel. The proposed amendments to subsection 1065.701 (a) (3) is necessary in order to allow use of the on-road motor vehicle E10 test fuel as an option for 2013 through ~~2018~~2019 model year engines. In addition, the proposed amendments to subsection 1065.701 (f) are necessary in order to specify that a service accumulation fuel can be either a test fuel or a commercially available in-use fuel.

### **Modifications to the Summary & Rationale: New Large Spark-Ignition Engines and In-Use Large Spark-Ignition Engine Retrofits**

On pages U-2 to U-4 of Appendix U to the Initial Statement of Reasons, the “Summary & Rationale: New Large Spark-Ignition Engines; and, In-Use Large Spark-Ignition Engine Retrofits,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

California Exhaust and Evaporative Emission Standards and Test Procedures for New 2010 and Later Off-Road Large Spark-Ignition Engines (2010 and Later Test Procedure 1048).

#### **PART 1048 – CONTROL OF EMISSIONS FROM NEW, LARGE NONROAD SPARK-IGNITION ENGINES**

##### Subpart B—Emission Standards and Related Requirements

##### Section 1048.101 What exhaust emission standards must my engines meet?

\* \* \* \* \*

(2) The purpose of this section is to identify the fuel specifications that are to be used for certification testing. This section was amended to allow off-road large spark-ignition engine manufacturers the optional use of the new California 10-percent ethanol-blend gasoline (E10) certification test fuel, which ARB will adopt for 2015 and subsequent model on-road motor vehicles, for 2013 through ~~2018~~2019 model-year engines. Use of this E10 certification test fuel will become mandatory beginning with the ~~2019~~2020 model year. The proposed optional and required use of this E10 certification test fuel is applicable to only exhaust emission test purposes.

\* \* \* \* \*

(B) The purpose of this new subsection is to provide manufacturers the alternative of using the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for model years 2013-~~2018~~ 2019.

(C) The purpose of this new subsection is to require the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for all ~~2019~~2020 and later model-year off-road large spark-ignition engines.

\* \* \* \* \*

### California Exhaust Emission Standards and Test Procedures for New 2007 and Later Off-Road Large Spark-Ignition Engines (Test Procedures 1065 and 1068).

#### Subpart H –Engine Fluids, Test Fuels, Analytical Gases and Other Calibration Standards

##### Section 1065.701 General requirements for test fuels.

(a) The purpose of this section is to identify the fuel specifications that are to be used for certification testing. This section was amended to allow off-road large spark-ignition engine manufacturers the optional use of the new California 10-percent ethanol-blend gasoline (E10) certification test fuel, which ARB will adopt for 2015 and subsequent model on-road motor vehicles, for 2013 through ~~2018~~2019 model-year engines. Use of this E10 certification test fuel will become mandatory beginning with the ~~2019~~2020 model year. The proposed optional and required use of this E10 certification test fuel is applicable to only exhaust emission test purposes.

\* \* \* \* \*

(2) The purpose of this new subsection is to provide manufacturers the alternative of using the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for model years 2013-~~2018~~2019.

(3) The purpose of this new subsection is to require the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for all ~~2019~~2020 and later model-year off-road large spark-ignition engines.

\* \* \* \* \*

Section 1065.710 Gasoline.

(b) The purpose of this subsection is to identify the specifications of the appropriate fuel for certification testing. The amendment allows the current option to use federal test fuel specifications through the ~~2018~~2019 model year, but for ~~2019~~2020 and later model years, it provides an option to use a federal test fuel only if that fuel is a ten-percent blend of ethanol. This ensures consistency with the California ten-percent ethanol test fuel required starting in ~~2019~~2020.

Section 2783. Emissions Reduction Testing Requirements.

(d) (1) The purpose of this section is to identify the fuel specifications that are to be used for testing.

(2) The purpose of this new subsection is to require that California's E10 certification test fuel be used to demonstrate compliance with the exhaust emission requirements of §2783, if the E10 test fuel was used to originally certify the engines of interest under the optional allowance for 2013 through ~~2018~~2019 model years.

(3) The purpose of this new subsection is to ensure that California's E10 certification test fuel be used to demonstrate compliance with the exhaust emission requirements of §2783 for engines of interest that were originally certified for the ~~2019~~2020 and later model years.

\* \* \* \* \*

Section 2784. Durability Demonstration Requirements.

(c) (1) The purpose of this section is to identify the fuel specifications that are to be used for durability testing. This section was amended to differentiate between engines of interest that may have been certified originally on California's E10 certification test fuel under the optional allowance for 2013 through ~~2018~~2019 model years and those that were not certified on the E10 test fuel.

(2) The purpose of this new subsection is to require that California's E10 certification test fuel be used to demonstrate compliance with the exhaust emission requirements of §2784, if the E10 test fuel was used to originally certify the engines of interest under the optional allowance for 2013 through ~~2018~~2019 model years.

(3) The purpose of this new subsection is to ensure that California's E10

certification test fuel be used to demonstrate compliance with the exhaust emission requirements of §2784 for engines of interest that were originally certified for the ~~2019~~2020 and later model years.

\* \* \* \* \*

### **Modifications to the Summary & Rationale:; Off-Highway Recreational Vehicles**

On page V-2 of Appendix V to the Initial Statement of Reasons, the “Summary & Rationale: Off-Highway Recreational Vehicles,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10 exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

#### Subpart F

Section 86.513 - 90 Fuel and engine lubricant specifications. 54 FR 14544, Apr. 11, 1989.

The purpose of this section is to identify the fuel and engine lubricant specifications that are to be used for certification testing. This section was amended to allow off-road recreational vehicle manufacturers the optional use of the new California 10-percent ethanol-blend gasoline (E10) certification test fuel, which ARB will adopt for 2015 and subsequent model on-road motor vehicles, for 2013 through ~~2018~~2019 model-year vehicles. Use of this E10 certification test fuel will become mandatory beginning with the ~~2019~~2020 model year. The proposed optional and required use of this E10 certification test fuel is applicable to only exhaust emission test purposes.

\* \* \* \* \*

(a)(1)(ii) (ii) The purpose of this new subsection is to provide manufacturers the alternative of using the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for model years 2013-~~2018~~2019.

(a)(2) The purpose of this new subsection is to require the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for all ~~2019~~2020 and later model-year off-highway recreational vehicles.

### **Modifications to the Summary & Rationale: Recreational Marine Spark-Ignition Engines**

On pages W-1 and W-2 of Appendix W to the Initial Statement of Reasons, the “Summary & Rationale: Recreational Marine Spark-Ignition Engines,” indicates the incorrect implementation schedule for the optional and mandatory use of the new E10

exhaust emission certification test fuel. The correct implementation schedule is shown by the proposed amendments below.

### California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines.

\* \* \* \* \*

#### Part III. Emission Test Equipment Provisions.

#### 44. Lubricating Oil and Test Fuel.

The purpose of this section is to identify the fuel and engine lubricant specifications that are to be used for certification testing. This section was amended to allow spark-ignition marine engine manufacturers the optional use of the new California 10-percent ethanol-blend gasoline (E10) certification test fuel, which ARB will adopt for 2015 and subsequent model on-road motor vehicles, for 2013 through ~~2018~~2019 model-year vessels and engines. Use of this E10 certification test fuel will become mandatory beginning with the ~~2019~~2020 model year. The proposed optional and required use of this E10 certification test fuel is applicable to only exhaust emission test purposes.

(b)(1)

\* \* \* \* \*

(ii) The purpose of this new subsection is to provide manufacturers the alternative of using the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for model years 2013-~~2018~~2019.

(b)(2) The purpose of this new subsection is to require the new California 10-percent content of ethanol-blend gasoline (E10) certification test fuel for all ~~2019~~2020 and later model-year spark-ignition marine engines.

### **CHANGES TO CORRECT MINOR CLERICAL ERRORS IN THE PROPOSED TEST PROCEDURES**

The proposed amendments involve some clerical errors in the proposed test procedures. Accordingly, staff is proposing modifications to correct these clerical errors.

## Modifications to the Proposed Test Procedures (Part 1054) for Small Off-Road Engines

On Page 5 of Appendix H to the Initial Statement of Reasons, the “Proposed Test Procedures (Part 1054): Small Off-Road Engines,” in §1054.101(a)(1), footnote No. 3 of Table: Exhaust Emission Standards for Spark-Ignition Engines, indicates the incorrect reference for the SORE test procedures as 40 CFR Part 90.103(a)(2)(ii). The correct reference is Part 1054.101(a)(2)(ii), as shown below.

### Subpart B—Emission Standards and Related Requirements

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

(a) DELETE,

REPLACE WITH:

(a) (1) *Exhaust emissions.* All engines must meet the requirements in §1054.115. Exhaust emissions from small off-road spark-ignition engines manufactured for sale, sold, offered for sale in California, or that are introduced, delivered or imported into California for introduction into commerce, must not exceed:

Exhaust Emission Standards for Spark-Ignition Engines  
(grams per kilowatt-hour)

Model Year	Displacement Category	Durability Periods (hours)	Hydrocarbon plus Oxides of Nitrogen <sup>(1)(3)</sup>	Carbon Monoxide	Particulate
2005 and subsequent	<50 cc	50/125/300	50	536	2.0 <sup>(2)</sup>
	50-80 cc, inclusive	50/125/300	72	536	2.0 <sup>(2)</sup>
2008 and subsequent	>80 cc - <225 cc	125/250/500	10.0	549	
	≥ 225 cc	125/250/500/1000	8.0	549	

(1) The Executive Officer may allow gaseous-fueled (i.e., propane, natural gas) engine families, that satisfy the requirements of the regulations, to certify to either the hydrocarbon plus oxides of nitrogen or hydrocarbon emission standard, as applicable, on the basis of the non-methane hydrocarbon (NMHC) portion of the total hydrocarbon emissions.

(2) Applicable to all two-stroke engines.

(3) Engines used exclusively to power products which are used exclusively in wintertime, at the option of the engine manufacturer, may comply with the provisions in ~~section 90.103(a)(2)(ii)~~ Part 1054.101(a)(2)(ii).

\* \* \* \* \*

On Page 7 of Appendix H to the Initial Statement of Reasons, the “Proposed Test Procedures (Part 1054): Small Off-Road Engines,” in §1054.105(a), references the applicable emission standards for engine with displacements >80 cc as contained in 13 CCR, Chapter 9, Article 1, Section 2403. This referencing method is inconsistent with the referencing method used earlier in §1054.103(a) for engines with displacements ≤80 cc, which references the emission standards contained in §1054.101. Accordingly, staff proposes to eliminate this inconsistency by referencing the emission standards contained in §1054.101 for engine with displacements >80 cc as well. The proposed modification is shown below.

Subpart B—Emission Standards and Related Requirements

\* \* \* \* \*

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

(a) DELETE,

REPLACE WITH:

*Emission standards.* Exhaust emissions from your engines may not exceed the emission standards ~~in Title 13, California Code of Regulations, Chapter 9, Article 1, Section 2403~~ that are specified in §1054.101. Measure emissions using the applicable steady-state test procedures described in subpart F of this part.

\* \* \* \* \*

On Page 9 of Appendix H to the Initial Statement of Reasons, the “Proposed Test Procedures (Part 1054): Small Off-Road Engines,” in §1054.115(c), the language describing the emission standards applicability with respect to altitude adjustments for certain atmospheric pressures is ambiguous and needs to be clarified. Accordingly, staff proposes to delete the ambiguous language and replace it with the clarification shown below.

Subpart B—Emission Standards and Related Requirements

\* \* \* \* \*

§ 1054.115 What other requirements apply?

\* \* \* \* \*

(c) DELETE,

REPLACE WITH:

*Altitude adjustments.* Engines must meet applicable emission standards for valid tests conducted under the ambient conditions specified in 40 CRF 1065.520. ~~Aside from engines that must meet the standards at or above barometric pressures of 96.0 kPa in the standard configuration and are not required to meet emission standards at lower barometric pressures, engines must meet applicable emission standards at all specified atmospheric pressures, except that for atmospheric pressures below 94.0 kPa you may rely on an altitude kit for all testing if you meet the requirements specified in §1054.205(r).~~ Engines must meet applicable emission standards at all specified atmospheric pressures except: (i) engines with displacements ≤80 cc for atmospheric pressures below 96.0 kPa; and, (ii) engines with displacements >80 cc may rely on an altitude kit for atmospheric pressures below 94.0 kPa if you meet the requirements specified in 1054.205(r). If you rely on an altitude kit for certification, you must identify in the owners manual the altitude range for which you expect proper engine performance and emission control with and without the altitude kit; you must also state in the owners manual that operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance. In your application for certification, identify the altitude above which you rely on an altitude kit to meet emission standards and describe your plan for making information and parts available such that you would reasonably expect that altitude kits would be widely used at all such altitudes.

\* \* \* \* \*