

## TITLE 13. CALIFORNIA AIR RESOURCES BOARD

### NOTICE OF PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO THE EVAPORATIVE EMISSION REQUIREMENTS FOR SMALL OFF-ROAD ENGINES

The Air Resources Board (ARB or Board) will conduct a public hearing at the time and place noted below to consider approving for adoption the proposed amendments to the evaporative requirements for off-road equipment.

DATE: November 17, 2016

TIME: 9:00 A.M.

LOCATION: California Environmental Protection Agency  
Air Resources Board  
Byron Sher Auditorium  
1001 I Street  
Sacramento, California 95814

This item may be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., November 17, 2016, and may continue at 8:30 a.m., on November 18, 2016. Please consult the agenda for the hearing, which will be available at least 10 days before November 17, 2016, to determine the day on which this item will be considered.

### **WRITTEN COMMENT PERIOD AND SUBMITTAL OF COMMENTS**

Interested members of the public may present comments orally or in writing at the hearing and may provide comments by postal mail or by electronic submittal before the hearing. The public comment period for this regulatory action will begin on September 30, 2016. Written comments not physically submitted at the hearing must be submitted on or after September 30, 2016, and received **no later than 5:00 pm on November 14, 2016**. ARB requests that when possible, written and email statements be filed at least 10 days before the hearing to give ARB staff and Board members additional time to consider each comment. The Board also encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action. Comments submitted in advance of the hearing must be addressed to one of the following:

Postal mail: Clerk of the Board, Air Resources Board  
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Please note that under the California Public Records Act (Gov. Code, § 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g.,

your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

Additionally, the Board requests but does not require that persons who submit written comments to the Board reference the title of the proposal in their comments to facilitate review.

## **AUTHORITY AND REFERENCE**

This regulatory action is proposed under the authority granted in California Health and Safety Code, sections 39600, 39601, and 43013. This action is proposed to implement, interpret, and make specific sections 39600, 39601, and 43013 of the Health and Safety Code.

## **INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW (GOV. CODE, § 11346.5, subd. (a)(3))**

### **Background and Effect of the Proposed Regulatory Action:**

The Federal Clean Air Act grants California the unique authority to adopt and enforce rules to control mobile source emissions within the State. In order to attain the State ambient air quality standards by the earliest practicable date as required by the California Clean Air Act, ARB seeks the maximum emissions reductions possible from vehicular and other mobile sources to protect the health and welfare of all California residents.

ARB staff proposes to amend the existing ARB regulations for controlling evaporative emissions from spark-ignited small off-road engines (SORE) rated at or below 19 kilowatts (25 horsepower). There are more than 16 million SORE currently being used in California to power a broad range of lawn and garden equipment including lawn mowers, leaf blowers, and lawn tractors, as well as generators and small industrial equipment. Evaporative emissions from gasoline-powered SORE equipment are a significant source of reactive organic gas (ROG) and toxic air contaminant (TAC) emissions, both when stored and during operation. In 2016, evaporation of gasoline from SORE equipment in California is estimated to have produced approximately 45 tons per day of ROG, which exceeds the emissions from the more than 10,000 gas stations statewide. ROG emissions contribute to ground-level ozone formation and the nonattainment of national ambient air quality standards for ozone in parts of California, such as the South Coast Air Basin and San Joaquin Valley Air Basin, which are designated extreme nonattainment areas. Emissions of TACs such as benzene pose a near-source health risk and contribute to increased morbidity and mortality in California.

ARB first adopted regulations to reduce evaporative emissions from SORE in September 2003. SORE are split into three engine displacement categories for the purposes of evaporative emission standards: 1) engines with displacement less than or equal to 80 cc, intended for use in handheld applications; 2) engines with displacement

greater than 80 cc but less than 225 cc, intended for use in walk-behind applications such as lawnmowers; and 3) engines with displacement greater than or equal to 225, intended for use in larger equipment such as riding mowers. The 2003 regulations are intended to control diurnal emissions from engines with displacement greater than 80 cc and fuel tank permeation emissions from engines with displacement less than or equal to 80 cc.

The proposed amendments include improvements to the certification procedures, revisions to the compliance testing procedure, an update of the certification test fuel to represent commercially available gasoline, and alignment of aspects of ARB's SORE requirements with those of the U.S. EPA. The proposed amendments are expected to increase compliance with the diurnal emission standards, require certification test fuel formulated to reflect motor vehicle fuel currently dispensed at California gasoline stations, and enable SORE manufacturers to obtain ARB and U.S. EPA certification for fuel tanks based on a common set of test results. The current regulatory structure requires separate fuel tank test results for ARB and U.S. EPA.

ARB may also consider other changes to the sections affected, as listed on page 4 of this notice, during the course of this rulemaking process.

#### **Objectives and Benefits of the Proposed Regulatory Action:**

To address non-compliance with the current diurnal emission standards observed in ARB's testing, staff proposes a number of amendments to the 2003 SORE regulations, including:

- Subjecting design-certified SORE to diurnal emission standards;
- Reducing the number of SORE engine units needed to be tested before ARB can take enforcement action from five to one;
- Requiring bonds for manufacturers without sufficient U.S. assets to cover enforcement obligations;
- Requiring recertification of evaporative components every four years;
- Requiring test fuel formulation to contain 10 percent ethanol (E10) to reflect motor vehicle fuel currently available in California; and
- Aligning, where practical, and without compromising ARB requirements, SORE certification and test procedures with those of U.S. EPA.

Currently, only the individual evaporative emission system components (fuel tank, fuel lines, and carbon canisters) of design-certified SORE can be tested for compliance, without accounting for other sources of evaporative emissions, such as carburetors. Manufacturers of performance-certified SORE are only required to test a single unit for certification, while ARB currently is required to test five SORE units to determine compliance. This proposal will harmonize the number of units needed for certification and compliance, thus enabling ARB to evaluate and take potential enforcement action against a larger number of SORE manufacturers.

The proposed revision to subject design-certified SORE to diurnal emission standards will allow ARB to compliance test the assembled SORE as a unit to ensure compliance with those standards. Aligning compliance testing and certification testing requirements will also facilitate compliance testing by making the two sets of requirements comparable. This alignment will have the benefit of allowing ARB to perform more compliance tests with the same level of resources.

By establishing bonding requirements for manufacturers with less than \$3-10 million in U.S. assets, depending on the length of time they have had certified SORE in California, the proposed amendments will help ensure SORE manufacturers have the ability to meet any potential monetary obligations associated with enforcement actions, and will deter manufacturers from knowingly producing non-compliant SORE products. The proposed bonding requirements are similar to those already adopted by U.S. EPA and in use nationally.

Certification renewal every four years for evaporative components will require Executive Order holders to assess whether any changes have been made that would affect the components' evaporative emissions. This revision will also provide ARB with a mechanism through which deficiencies can be corrected by withholding certification until information is provided that demonstrates compliance with SORE evaporative emission standards.

The proposed change in test fuel formulation will have no immediate effect on real-world ROG emissions because motor vehicle fuel dispensed at California gasoline stations has already been changed. Fuel at gasoline stations has contained 10 percent ethanol since January 2010. Therefore, SORE currently in use in California operate using E10 fuel. SORE that comply with the diurnal emission standards when tested with the current certification test fuel are expected to also comply when tested with E10 fuel. However, requiring E10 certification test fuel, along with the other proposed amendments that are intended to increase compliance rates, will help to ensure SORE introduced into California commerce meet current emission standards with commercially available gasoline. Aligning ARB SORE certification and test procedures with U.S. EPA, where possible, eliminates duplicative requirements and gives manufacturers the option to certify fuel tanks based on a common set of data acceptable to both ARB and U.S. EPA.

Staff concludes the current proposal will enhance ARB's ability to identify non-compliant equipment, while not unfairly penalizing compliant manufacturers, and recommends that the Board adopt the proposed SORE regulatory amendments. The current proposal will increase compliance with the existing diurnal emission standards, ensuring that ROG emissions reductions needed for the State Implementation Plan are achieved, while reducing near-source exposure to TACs and the associated health risk.

**Sections Affected:**

Proposed adoption of California Code of Regulations, title 13, section 2774. Proposed amendments to California Code of Regulations, title 13, section(s) 2750, 2751, 2752,

2753, 2754, 2754.1, 2754.2, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2767.1, 2768, 2769, 2770, 2771, 2772, and 2773; and proposed amendments to the following documents incorporated by reference therein:

- “CP-901, Certification and Approval Procedure for Small Off-Road Engine Fuel Tanks,” adopted July 26, 2004;
- “CP-902, Certification and Approval Procedure for Evaporative Emission Control Systems,” adopted July 26, 2004;
- “TP-901, Test Procedure for Determining Permeation Emissions From Small Off-Road Engine and Equipment Fuel Tanks,” adopted July 26, 2004;
- “TP-902, Test Procedure for Determining Diurnal Evaporative Emissions From Small Off-Road Engines and Equipment,” adopted July 26, 2004.

### **Documents Incorporated by Reference (Cal. Code Regs., tit. 1, § 20, subd. (c)(3)):**

#### **Incorporated by Reference in Appendix A to the Staff Report**

ANSI/OPEI B71.10 2013, *American National Standard for Off-Road Ground-Supported Outdoor Power Equipment - Gasoline Fuel Systems - Performance Specifications and Test Procedures*, 2013.

<http://webstore.ansi.org/RecordDetail.aspx?sku=ANSI%2fOPEI+B71.10-2013>.

Society of Automotive Engineers (SAE), (2013). J1737: Test Procedure to Determine the Hydrocarbon Losses from Fuel Tubes, Hoses, Fittings, and Fuel Line Assemblies by Recirculation, Surface Vehicle Recommended Practice, Stabilized May 2013. [http://standards.sae.org/j1737\\_201305/](http://standards.sae.org/j1737_201305/).

#### **Incorporated by Reference in Appendices B and C to the Staff Report**

U.S. EPA, Method 301 – Field Validation of Pollutant Measurement Methods from Various Waste Media, December 29, 1992

<https://www3.epa.gov/ttn/emc/method301.html>.

### **Comparable Federal Regulations:**

When California’s SORE evaporative emission standards were adopted in September 2003, no comparable federal rules existed. In 2008, the U.S. EPA adopted Title 40, Part 1060, to control evaporative emissions from new and in-use nonroad and stationary equipment. The federal rules laid out evaporative emissions standards for SORE equipment, including fuel tanks and lines, which were similar to existing California requirements for design certification. While federal and California evaporative component emissions standards are similar, there are some differences between California and federal certification and test procedures. The proposed amendments described in this staff report

will help to align California's fuel tank test procedures with federal requirements, but differences will still exist between the two regulations. Staff's proposal would deviate from, and be more stringent than federal requirements as follows:

- Current requirements for California include diurnal emission standards that control all sources of emissions from SORE, whereas the federal requirements only control fuel tank permeation, fuel line permeation, and running loss emissions.
- The California fuel tank permeation emission standards at 40 °C are 1.5 g TOG·m<sup>-2</sup>·day<sup>-1</sup> for engines with displacement greater than 80 cc and 2.0 g TOG·m<sup>-2</sup>·day<sup>-1</sup> for engines with displacement less than or equal to 80 cc, whereas the federal fuel tank permeation emission standard at 40 °C is 2.5 g TOG·m<sup>-2</sup>·day<sup>-1</sup>. The more stringent fuel tank standards are necessary to achieve the greater level of control of evaporative emissions needed in California.
- Proposed requirements for California would continue to require testing five fuel tanks for certification, whereas comparable federal requirements would only require testing between one and three fuel tanks. By requiring testing of more fuel tanks for certification, staff expects that manufacturers will place a greater emphasis on quality control and consistently producing compliant products.
- Proposed requirements for California would require manufacturers to maintain a bond of \$500 per engine, whereas comparable federal requirements specify a bond amount of \$25 – \$200 per engine. This bond requirement was chosen as a means of ensuring that manufacturers would have sufficient funds to pay the maximum penalty for one violation allowed under California statutes in the event that equipment is found to be out of compliance. Violations are determined on a per engine or component basis, and each day in which there is a violation is a separate violation.
- Preconditioning temperature profiles differ between the proposed California requirements and existing federal requirements, although staff's proposal provides a pathway to allow a common preconditioning process to be used for both. The preconditioning temperature profile was chosen in order to accurately reflect the temperature profile that SORE equipment will be exposed to over its useful operating life in California.
- Fuel specification differs between the proposed California requirements and existing federal requirements, although staff's proposal provides a pathway to allow a single fuel to be used for both. The test fuel was chosen in order to accurately reflect the fuel formulation that SORE equipment will be exposed to over its useful operating life in California.

**An Evaluation of Inconsistency or Incompatibility with Existing State Regulations (Gov. Code, § 11346.5, subd. (a)(3)(D)):**

During the process of developing the proposed regulatory action, ARB conducted a search of any similar regulations on this topic and concluded these regulations are neither inconsistent nor incompatible with existing state regulations.

**DISCLOSURE REGARDING THE PROPOSED REGULATIONS**

**Fiscal Impact/Local Mandate Determination Regarding the Proposed Action (Gov. Code, § 11346.5, subds. (a)(5)&(6)):**

The determinations of the Board's Executive Officer concerning the costs or savings incurred by either public agencies or private persons and businesses in reasonable compliance with the proposed regulatory action are presented below.

Under Government Code sections 11346.5, subdivision (a)(5) and 11346.5, subdivision (a)(6), the Executive Officer has determined that the proposed regulatory action would create costs to ARB as a State agency for enforcement and certification by the State, pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, or other nondiscretionary costs to State agencies. This regulatory action would not result in savings to any State agency, or costs or savings in federal funding to the State, costs or mandate to any local agency or school district (whether or not reimbursable by the State under Government Code, title 2, division 4, part 7 (commencing with section 17500)), or other nondiscretionary cost or savings to State or local agencies.

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. Staff expects that the extra cost of evaporative components to comply with the proposed regulations will be passed on to representative persons.

**Housing Costs (Gov. Code, § 11346.5, subd. (a)(12)):**

The Executive Officer has also made the initial determination that the proposed regulatory action will not have a significant effect on housing costs.

**Significant Statewide Adverse Economic Impact Directly Affecting Business, Including Ability to Compete (Gov. Code, §§ 11346.3, subd. (a), 11346.5, subd. (a)(7), 11346.5, subd. (a)(8)):**

The Executive Officer has made an initial determination that the proposed regulatory action would not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons.

**Results of The Economic Impact Assessment (Gov. Code, § 11346.5, subd. (a)(10)):**

A detailed assessment of the economic impacts of the proposed regulatory action can be found in the Initial Statement of Reasons (ISOR).

**Effect on Jobs/Businesses:**

The Executive Officer has determined that the proposed regulatory action would not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the Economic Impact Analysis in the ISOR.

**Benefits of the Proposed Regulations:**

The objective of the proposed amendments is to increase compliance of SORE equipment with diurnal emission standards and require a certification fuel that reflects motor vehicle fuel currently dispensed at California gasoline stations. The proposed amendments will bring public health and environmental benefits, as well.

A summary of these benefits is provided in “Objectives and Benefits of the Proposed Regulatory Action”, under the Informative Digest of Proposed Action and Policy Statement Overview Pursuant to Government Code 11346.5(a)(3) discussion on page 3 of this notice.

**Business Report (Gov. Code, §§ 11346.5, subd. (a)(11); 11346.3, subd. (d)):**

In accordance with Government Code sections 11346.5, subdivisions (a)(11) and 11346.3, subdivision (d), the Executive Officer finds the reporting requirements of the proposed regulatory action which apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

**Cost Impacts on Representative Private Persons or Businesses (Gov. Code, § 11346.5, subd. (a)(9)):**

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. Staff expects that the extra cost of evaporative components to comply with the proposed amendments may be passed on to representative private persons.

**Effect on Small Business (Cal. Code Regs., tit. 1, § 4, subds. (a) and (b)):**

The Executive Officer has also determined under California Code of Regulations, title 1, section 4, that the proposed regulatory action would not significantly affect small



businesses because staff expects that the costs may be passed on to representative private persons.

**Alternatives Statement (Gov. Code, § 11346.5, subd. (a)(13)):**

Before taking final action on the proposed regulatory action, the Board must determine that no reasonable alternative considered by the Board, or that has otherwise been identified and brought to the attention of the Board, would be more effective in carrying out the purpose for which the action is proposed, would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law. Staff has considered a number of alternatives and recommends rejecting them, as further discussed in the staff report.”

**ENVIRONMENTAL ANALYSIS**

ARB, as the lead agency under the California Environmental Quality Act (CEQA), has reviewed the proposed regulatory amendments and concluded that they are exempt pursuant to CEQA Guidelines §15061, because the action is both an Action Taken by Regulatory Agencies for Protection of the Environment (as described in CEQA Guidelines §15308 for “class 8” exemptions); and it is also exempt as described in CEQA Guidelines §15061(b)(3) (“common sense” exemption) because it can be seen with certainty that there is no possibility that the proposed action may result in a significant adverse impact on the environment. A brief explanation of the basis for reaching this conclusion is included in Chapter IV of the ISOR.

**SPECIAL ACCOMMODATION REQUEST**

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the hearing;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 10 business days before the scheduled Board hearing.

TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia
- Documentos disponibles en un formato alterno u otro idioma

- Una acomodación razonable relacionados con una incapacidad

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envíe un fax a (916) 322-3928 lo más pronto posible, pero no menos de 10 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California

### **AGENCY CONTACT PERSONS**

Inquiries concerning the substance of the proposed regulatory action may be directed to the agency representative Christopher Dilbeck, Air Pollution Specialist, Testing and Certification Section, (916) 319-0106 or (designated back-up contact) Angus MacPherson, Supervisor, Testing and Certification Section, (916) 445-4686.

### **AVAILABILITY OF DOCUMENTS**

ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the economic and environmental impacts of the proposal. The report is entitled: **PUBLIC HEARING TO CONSIDER THE PROPOSED AMENDMENTS TO THE EVAPORATIVE EMISSION REQUIREMENTS FOR SMALL OFF-ROAD ENGINES.**

Copies of the ISOR and the full text of the proposed regulatory language, in underline and strikethrough format to allow for comparison with the existing regulations, may be accessed on ARB's website listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990, on September 27, 2016.

Further, the agency representative to whom nonsubstantive inquiries concerning the proposed administrative action may be directed is Nicole Hutchinson, Regulations Coordinator, (916) 322-6533. The Board staff has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

### **HEARING PROCEDURES**

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Government Code, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340).

Following the public hearing, the Board may take action to approve for adoption the regulatory language as originally proposed, or with non-substantial or grammatical modifications. The Board may also approve for adoption the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice and that the

regulatory language as modified could result from the proposed regulatory action. The proposed changes could be changed further, withdrawn, or replaced with different proposals. If such modifications occur, the full regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15-days before final adoption.

The public may request a copy of the modified regulatory text from ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990.

### **FINAL STATEMENT OF REASONS AVAILABILITY**

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on ARB's website listed below.

### **INTERNET ACCESS**

This notice, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on ARB's website for this rulemaking at <https://www.arb.ca.gov/regact/2016/sore2016/sore2016.htm>

CALIFORNIA AIR RESOURCES BOARD



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Richard W. Corey  
Executive Officer

Date: September 13, 2016

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at [www.arb.ca.gov](http://www.arb.ca.gov).*