

Attachment C

Honda's Spreadsheet Comments to CARB's Proposed Amendments to Regulation Orders, Test Procedures, and Certification Procedures, and CARB Responses

This attachment contains Honda's comments presented in the Microsoft Excel file named "Honda Comment CARB Tier4 15-Day Notice_2022.04.13.xlsx," which was attached to Honda's April 14, 2022, email message submitted to CARB staff during the March 2022 15-day comment period. Honda's email message states, "Attached are Honda's comments related to CARB's SORE Tier 4 rulemaking and 15-Day notice." The following table columns provide a verbatim transcription¹ of the combined text of the four worksheets included in Honda's Excel file in their entirety: "Section Number," "CARB's Proposed Text as Transcribed by Honda," and "Honda Comment." The "Agency Response" table column provides CARB's response to each Honda comment. The "Agency Response Number" table column was added for ease of reference. The originally-submitted Honda email message with its attachments is included in its entirety in the rulemaking record.

¹ All typographical errors are as stated in Honda's table attachment and have not been corrected here.

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
C-1	EM(§ 2400) § 2401. (7)	<p>(7) "Certification emission reduction credits" means the amount of emission reduction or exceedance, by an engine family, below or above the applicable HC+NO_x (or NMHC+NO_x, as applicable) or Particulate Matter emission standard, respectively. Family emission levels (FEL) below the standard create "positive credits," while FELs above the standard create "negative credits." Some or all of these credits may be revoked if the Executive Officer's review of the end-of-year reports or any subsequent audit action(s) reveals problems or errors of any nature with credit computations.</p> <p>(A) "Projected credits" refer to emission credits based on the projected applicable production/sales volume of the engine family.</p> <p>(B) "Reserved credits" are emission credits generated within a model year available for reporting to the Executive Officer at the end of the model year.</p> <p>(C) "Actual credits" refer to emission credits based on California's share, determined by market analysis, of actual federal production/sales volume as contained in the end-of-year reports submitted to the Executive Officer.</p> <p>(8) "Certification value" means the product of the measured emissions of the prototype engine at zero hours and the (calculated or assigned) deterioration factor.</p> <p>(9) "Blue Sky Series engine" means a small off-road engine meeting the requirements of Section 2403(b)(2)(A).</p> <p>(10) "Complete engine assembly" or "Engine configuration" means an assembly of a basic engine and all of the specific applicable components (e.g., air inlet, fuel and exhaust systems, etc.) and calibrations (e.g., carburetor jet size, valve timing, etc.) required for the assembly to be installed into a new unit of equipment.</p>	<p>(7) According to § 2408, proposed regulation has added CO emission to ABT program. The definition of "Certification emission reduction credits" has not added "CO". We believe "CO" should be included.</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment. The addition of carbon monoxide (CO) to the applicability of the certification averaging, banking, and trading provisions in section 2408 clearly indicates that manufacturers may earn and use emission reduction credits for CO.</p>
C-2	§ 2403. (e)	<p>(e) Averaging. For new 2000 and subsequent model year small off-road engines, a manufacturer may comply with the standards established in paragraph (b), above, by choosing either to certify an engine family to the standards or to use the corporate average described below.</p> <p>(1) For each model year, the corporate average value for a pollutant is defined by the following equation:</p>	<p>Should add "CO" in "Credits expended" since CO is added in the ABT program</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment. The addition of carbon monoxide (CO) to the applicability of the certification averaging, banking, and trading provisions in section 2408 clearly indicates that manufacturers may earn and use emission reduction credits for CO.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		$\frac{\sum_{j=1}^n (\text{FEL}_j)(\text{Sales}_j)(\text{Power}_j)(\text{Load Factor})(\text{EDP}_j) - \text{credits expended}}{\sum_{j=1}^n (\text{Sales}_j)(\text{Power}_j)(\text{Load Factor})(\text{EDP}_j)} = \text{AVG}$ <p>where</p> <p>n = the number of small off-road engine families. FEL = the Family emission level for an engine family. Sales_j = eligible sales of engine family j. Power_j = sales-weighted maximum modal power, in horsepower or kilowatt as applicable, of engine family j, or an alternative approved by the Executive Officer.</p> <p>EDP_j = Emissions durability period of engine family j, in hours. AVG = For a given pollutant (HC+NO_x, CO, or Particulate Matter), a manufacturer's corporate average of the exhaust emissions from those California small off-road engines subject to the California corporate average pollutant exhaust emission standard, as established by an Executive Order certifying the California production for the model year. Engines certified to voluntary standards of 2403 (b)(2) are not eligible for corporate averaging. Credits expended = HC+NO_x, or Particulate Matter credits, as defined in sections 2408 and 2409, that are expended by the manufacturer to adjust the corporate average. This term has no meaning for any pollutants other than HC+NO_x and Particulate Matter. Load Factor = For Test Cycle A and Test Cycle B, the Load Factor = 47% (i.e., 0.47). For Test Cycle C, the Load Factor = 85% (i.e., 0.85). For approved alternate test procedures, the load factor must be calculated according to the Load Factor formula found in paragraph (f)(1) of section 2408.</p>		
C-3	§ 2403. (e)(2)-(3)	<p>(2) The manufacturer's average pollutant exhaust emissions must meet the corporate average standard at the end of the manufacturer's production for the model year. At the end of the model year, the manufacturer must calculate a corrected corporate average using actual rather than projected sales. Any discrepancy must be made up with emission reduction credits as explained in paragraph (3).</p> <p>(3) All excess HC+NO_x or Particulate Matter emissions resulting from final non-compliance with the California standard must be made up with emission reduction credits or through incorporation in the following model year's corporate average.</p> <p>(A) Emission reduction credits expended within the next model year to remedy final non-compliance will be used at a rate of 1 gram to 1 gram.</p> <p>(B) Emission reduction credits expended after the end of the next model year to remedy final non-compliance must be used at a rate of 1.5 grams to 1 gram.</p>	(3) Should add "CO" in the averaging calculation since CO is added in the ABT program	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment. The addition of carbon monoxide (CO) to the applicability of the certification averaging, banking, and trading provisions in section 2408 clearly indicates that manufacturers may earn and use emission reduction credits for CO.
C-4	§ 2403.	<p>(2) (A) A new small off-road engine equal to or greater than 225 cc, intended solely to replace an engine in a piece of off-road equipment that was originally produced with an engine manufactured prior to the applicable implementation date as described in paragraph (b), shall not be subject to the emissions requirements of paragraph (b) provided that:</p> <p>1. The engine manufacturer has ascertained that no engine produced by itself or the manufacturer of the engine that is being replaced, if different, and certified</p>	This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label. Additionally, if a modification to the label is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>to the requirements of this article, is available with the appropriate physical or performance characteristics to repower the equipment; and</p> <p>2. Unless an alternative control mechanism is approved in advance by the Executive Officer, the engine manufacturer or its agent takes ownership and possession of the engine being replaced; and</p> <p>3. The replacement engine is clearly labeled with the following language, or similar alternate language approved in advance by the Executive Officer: THIS ENGINE DOES NOT COMPLY WITH CALIFORNIA OFF-ROAD OR ON-HIGHWAY EMISSION REQUIREMENTS. SALE OR INSTALLATION OF THIS ENGINE FOR ANY PURPOSE OTHER THAN AS A REPLACEMENT ENGINE IN AN OFF-ROAD VEHICLE OR PIECE OF OFF-ROAD EQUIPMENT WHOSE ORIGINAL ENGINE WAS NOT CERTIFIED IS A VIOLATION OF CALIFORNIA LAW SUBJECT TO CIVIL PENALTY. <u>This Engine Does Not Comply with California Off-Road or On-Highway Emission Requirements. Sale or Installation of this Engine for Any Purpose Other Than as a Replacement Engine in an Off-Road Vehicle or Piece of Off-Road Equipment Whose Original Engine Was Not Certified Is a Violation of California Law Subject to Civil Penalty.</u></p>	<p>Propose the text should remain the current language as below</p> <p>"3. The replacement engine is clearly labeled with the following language, or similar alternate language approved in advance by the Executive Officer: THIS ENGINE DOES NOT COMPLY WITH CALIFORNIA OFF-ROAD OR ON-HIGHWAY EMISSION REQUIREMENTS. SALE OR INSTALLATION OF THIS ENGINE FOR ANY PURPOSE OTHER THAN AS A REPLACEMENT ENGINE IN AN OFF-ROAD VEHICLE OR PIECE OF OFF-ROAD EQUIPMENT WHOSE ORIGINAL ENGINE WAS NOT CERTIFIED IS A VIOLATION OF CALIFORNIA LAW SUBJECT TO CIVIL PENALTY."</p>	
C-5	§ 2404	<p>(c) Engine Label Content and Location.</p> <p>(1) A plastic or metal tune-up label must be welded, riveted or otherwise permanently attached by the engine manufacturer to an area on the engine (i.e., block or crankcase) in such a way that it will be readily visible to the average person after installation of the engine in the equipment. If such an attachment is not feasible, the Executive Officer may allow the label to be attached on components of the engine or equipment assembly (as applicable) that satisfy the requirements of Subsection (c)(2). Such labels must be attached on all engine assemblies (incomplete and complete) that are produced by an engine manufacturer.</p> <p>(2) In selecting an acceptable location, the engine manufacturer must consider the possibility of accidental damage (e.g., possibility of tools or sharp instruments coming in contact with the label). Each engine label(s) must be affixed in such a manner that it cannot be removed without destroying or defacing the label, and must not be affixed to any engine (or equipment, as applicable) part that is likely to be replaced during the engine's (or equipment's, as applicable) useful life. The engine label must not be affixed to any engine (or equipment, as applicable) component that is easily detached from the engine. If the manufacturer claims there is inadequate space to affix the label, the</p>	<p>This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label. Additionally, if a modification to the label is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.</p> <p>Propose the text should remain the current language as below</p> <p>"The engine label information must be written in the English language and use block letters and numerals (i.e., sans serif, upper-case characters) that must be of a color that contrasts with the background of the label."</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		Executive Officer will determine a suitable location. (3) The engine label information must be written in the English language and use block sans serif letters and numerals (i.e., sans serif, upper case characters) that must be of a color that contrasts with the background of the label.		
C-6	§ 2404	(4) The engine label must contain the following information: (A) The label heading must read: "IMPORTANT ENGINE INFORMATION" "Important Engine Information"; or "IMPORTANT EMISSION INFORMATION" "Important Emissions Information"; or "EMISSION CONTROL INFORMATION" "Emission Control Information" . (B) The full corporate name or trademark of the engine manufacturer. 1. An engine manufacturer may request the Executive Officer's approval to delete its name and trademark, and substitute the name and trademark of another engine manufacturer, original equipment manufacturer, or third-party distributor. 2. Such an approval does not relieve the engine manufacturer granted an engine family Executive Order of any requirements imposed on the applicable engines by this Article. (C) For alternate-fuel or dual-fuel engines, "THIS ENGINE IS CERTIFIED TO OPERATE ON (specify operating fuel(s))." <u>"This engine is certified to operate on (specify operating fuel(s))."</u> (D) Identification of the Exhaust Emission Control System. The method utilized to identify the exhaust emission control systems must conform to the emission-related nomenclature and abbreviations method provided in the Society of Automotive Engineers' recommended practice SAE J1930, "Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations and Acronyms - Equivalent to ISO/TR 15031-2: April 30, 2002", April 2002 Revised March 2017, and which is incorporated by reference in this Article; and as specified in Section 1777, Title 13, California Code of Regulations.	This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label. Additionally, if a modification to the label is required, manufactures will need sufficient lead time. This revisions proposed effective MY is unclear. Propose the text should remain the current language as below (A) The label heading must read: "IMPORTANT ENGINE INFORMATION"; or "IMPORTANT EMISSION INFORMATION"; or "EMISSION CONTROL INFORMATION". (C) For alternate-fuel or dual-fuel engines, "THIS ENGINE IS CERTIFIED TO OPERATE ON (specify operating fuel(s))."	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.
C-7	§ 2404	(E) For otto-cycle engines, the maintenance specifications and adjustments recommended by the engine manufacturer, including, as applicable: valve lash, ignition timing, idle air/fuel mixture setting procedure and value (e.g., idle CO, idle speed drop), and high idle speed. For diesel-cycle engines, the specifications and adjustments recommended by the engine manufacturer, including, as applicable: initial injection timing, and fuel rate (in mm3 /stroke) at rated power. These specifications must indicate the proper transmission	This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label. Additionally, if a modification to the label is required, manufactures will need sufficient lead time. This revisions proposed effective MY is unclear.	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>position, (if applicable), during tune-up and what accessories, if any, should be in operation, and what systems, if any (e.g., vacuum advance, air pump), should be disconnected during the tune-up. If the engine manufacturer does not recommend adjustment of the foregoing specifications, the engine manufacturer may include in lieu of the "specifications" the single statement "NO OTHER ADJUSTMENTS NEEDED." "<u>No other adjustments needed.</u>" For all engines, the instructions for tune-up adjustments must be sufficiently clear on the engine label to preclude the need for a mechanic or equipment owner to refer to another document in order to correctly perform the adjustments.</p> <p>(F) Any specific fuel or engine lubricant requirements (e.g., lead content, research octane number, engine lubricant type).</p> <p>(G) The date of engine manufacture (month and year).</p> <p>(H) An unconditional statement of compliance with the appropriate calendar year (for 1995-1999) or model year(s) (for 2000 and later) California regulations; for example, "THIS ENGINE MEETS 2005 CALIFORNIA EXH EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES." "<u>This engine meets 2021 California exh emission regulations for small off-road engines.</u>" For engines certified to emission standards subject to a durability period as set forth in §2403(b), the durability period must be stated in the owner's manual.</p> <p>(I) Engine displacement (in cubic centimeters) of the engine upon which the engine label is attached.</p> <p>(J) The engine family identification (i.e., engine family name).</p>	<p>Propose the text should remain the current language as below</p> <p>(H) An unconditional statement of compliance with the appropriate calendar year (for 1995-1999) or model year(s) (for 2000 and later) California regulations; for example, "THIS ENGINE MEETS 2005 CALIFORNIA EXH EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES." For engines certified to emission standards subject to a durability period as set forth in §2403(b), the durability period must be stated in the owner's manual.</p>	
C-8	§ 2404	<p>(5) If there is insufficient space on the engine to accommodate an engine label that contains all of the information required in Subsection (4) above, the Executive Officer may allow the engine manufacturer to modify the engine label as follows:</p> <p>(A) Exclude the information required in Subsections (4)(C), (D), (E), (F), and (I) from the engine label. The fuel or lubricant information must be specified elsewhere on the engine, or in the owner's manual.</p> <p>(B) Substitute the information required in Subsection (4)(E) with the statement: "REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS." "Refer to owner's manual for maintenance specifications and adjustments." When such a statement is used, the information required by Subsection (4)(E) must appear in the owner's manual.</p> <p>(C) Exclude the information required by Subsection (4)(G) on the engine label if the date the engine was manufactured is stamped permanently on the engine, and this stamped date is readily visible.</p>	<p>This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label. Additionally, if a modification to the label is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.</p> <p>Propose the text should remain the current language as below</p> <p>(B) Substitute the information required in Subsection (4)(E) with the statement: "REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS." When such a statement is used, the information required by Subsection (4)(E) must appear in the owner's manual.</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>(D) Make such other reasonable modifications or abbreviations as may be approved by the Executive Officer.</p> <p>(d) An engine label may state that the engine conforms to any applicable federal, Canadian, or European emission standards for new equipment engines; or any other information that the engine manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the engine.</p> <p>(e) Supplemental Engine Label Content and Location.</p> <p>(1) When a final equipment assembly that is marketed to any ultimate purchaser is manufactured and the engine label attached by the engine manufacturer is obscured (i.e., not readily visible), the manufacturer of the final equipment assembly (i.e., original equipment manufacturer) must attach a supplemental engine label upon the engine or equipment. The supplemental engine label must be plastic or metal, must meet the visibility, durability and formatting requirements of paragraphs (f), (g) and (h), and must be welded, riveted or otherwise attached permanently to an area of the engine or equipment assembly so as to be readily visible to the average person.</p>		
C-9	§ 2404	<p>(B) The Air Index Label must be noticeable from a distance of 150 centimeters (59 inches) without any obstructions by equipment or engine parts, including all engine manufacturer or original equipment manufacturer (as applicable) available optional equipment. For engines that are installed in an engine compartment that is easily accessible to the ultimate purchaser, this subsection (l)(5)(B) may be satisfied by a generic label or hang tag stating "LOOK INSIDE THE ENGINE COMPARTMENT FOR IMPORTANT EMISSIONS INFORMATION," "<u>Look inside the engine compartment for important emissions information,</u>" or by other means, subject to the Executive Officer's approval.</p> <p>(C) The Air Index Label must be located in at least one of the following locations:</p> <ol style="list-style-type: none"> 1. included on the engine label; 2. included as an additional engine label, designed and intended for removal only by the ultimate purchaser; or 3. included as an engine or equipment hang-tag designed or intended for removal only by the ultimate purchaser; <p>(D) For engines 0-65 cc (up to 80 cc beginning with the 2005 model year), inclusive, the engine manufacturer must also arrange for a label with the engine family's Air Index to be attached to the equipment packaging.</p> <p>(E) The Executive Officer, upon request, may waive or modify the form of the Air Index Label or may approve alternative forms, sizes or locations, provided that the</p>	<p>The determination of Upper case or a mixture should be consistent with the determination of the other label texts that Honda proposes the necessity of EPA and industry cooperative in order to maintain a single 50-state emissions label</p> <p>(Additionally, if a modification to the label is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.)</p> <p>Until the conclusion is made, propose the text should remain the current languag</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>intent of the Air Index Label requirement is met.</p> <p>(6) The labeling and consumer information provisions of subsection (l) shall not apply to engines that are not the primary power source of the equipment in which they are installed or to engines that are installed in equipment that the engine or equipment manufacturer can demonstrate, to the Executive Officer's reasonable satisfaction, are used almost exclusively in commercial applications in which consumer information are not likely to affect a purchasing decision.</p>		
C-10	<p>§ 2406. Emission Control System Warranty Statement. § 2406</p>	<p>(a) Each manufacturer must furnish a copy of the following statement with each new 1995 and later small off-road engine, using those portions of the statement applicable to the engine.</p> <p>CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS <u>California Emission Control Warranty Statement Your Warranty Rights and Obligations</u></p> <p>The California Air Resources Board (and manufacturer's name, optional) is pleased to explain the emission control system warranty on your (year(s)) (equipment type or small off-road) engine. In California, new small off-road engines must be designed, built and equipped to meet the State's stringent anti-smog standards. (Manufacturer's name) must warrant the emission control system on your (equipment type or small off-road) engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine.</p> <p>Your emission control system may include parts such as the carburetor or fuel-injection system, the ignition system, and catalytic converter. Also included may be hoses, belts, connectors and other emission-related assemblies.</p> <p>Where a warrantable condition exists, (manufacturer's name) will repair your (equipment type or small off-road) engine at no cost to you including diagnosis, parts and labor.</p> <p>MANUFACTURER'S WARRANTY COVERAGE: <u>Manufacturer's Warranty Coverage:</u></p> <p>The 1995 and later small off-road engines are warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by (manufacturer's name).</p>	<p>This is inconsistent with EPA and will result in the need for separate warranties for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions warranty.</p> <p>Additionally, if a modification to the warranty language is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.</p> <p>Propose the text should remain the current language</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
C-11	§ 2406	<p><u>OWNER'S WARRANTY RESPONSIBILITIES: Owner's Warranty Responsibilities:</u></p> <p>- As the (equipment type or small off-road) engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. (Manufacturer's name) recommends that you retain all receipts covering maintenance on your (equipment type or small off-road) engine, but (manufacturer's name) cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.</p> <p>- As the (equipment type or small off-road) engine owner, you should however be aware that (manufacturer's name) may deny you warranty coverage if your (equipment type or small off-road) engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.</p> <p>- You are responsible for presenting your (equipment type or small off-road) engine to a (manufacturer's name) distribution center as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.</p> <p>If you have any questions regarding your warranty rights and responsibilities, you should contact (Insert chosen manufacturer's contact) at 1-XXX-XXX-XXXX.</p> <p>(b) Warranty Contact Requirement (1) Commencing with the 1995 calendar year, each manufacturer must furnish with each new engine a warranty statement that generally describes the obligations and rights of the manufacturer and owner under this article. Manufacturers must also include in the warranty statement a phone number the consumer may use to obtain their nearest franchised United States service center. (2) The service center phone number must be staffed with at least one English speaking contact. The contact must be able to respond to inquiries in real time or if the volume of calls precludes a real time response, within one business day.</p>	<p>This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label.</p> <p>Additionally, if a modification to the label is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.</p> <p>Propose the text should remain the current language</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>
C-12	§ 2407	<p>(a) Compliance Test Procedures. (1) The Executive Officer may, with respect to any new engine family or subgroup being sold, offered for sale, or manufactured for sale in California, order an engine manufacturer to make available for compliance testing and/or inspection a reasonable number of one or more engines, and may direct that the engines be delivered to</p>	<p>Proposal should align with evap reg 2765(b) where there is an option to test 5 units at an independent laboratory and determine compliance based on the average of the 5 units if ARB's testing fails.</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>the state board at 4001 Iowa Street, Riverside, CA 92507 the Haagen-Smit Laboratory, 9528 Telstar Avenue, El Monte, California or where specified by the Executive Officer. The Executive Officer may also, with respect to any new engine family or subgroup being sold, offered for sale, or manufactured for sale in California, have an engine manufacturer compliance test and/or inspect a reasonable number of one or more engines at the engine manufacturer's facility under the supervision of an CARB Enforcement Officer. Engines must be selected at random from sources specified by the Executive Officer according to a method approved by the Executive Officer, that, insofar as practical, must exclude engines that would result in an unreasonable disruption of the engine manufacturer's distribution system.</p> <p>A subgroup may be selected for compliance testing only if the Executive Officer has reason to believe that the emissions characteristics of that subgroup are substantially in excess of the emissions of the engine family as a whole.</p> <p>(2) For all 1995 and subsequent small off-road engines selected for compliance testing, the selection and testing of engines and the evaluation of data must be made in accordance with the procedures set forth herein.</p> <p>(3) These procedures are applicable, commencing with the 1995 calendar year, to any engine family or any subgroup within an engine family selected for compliance testing pursuant to this section.</p> <p>(4) All testing must be conducted in accordance with the applicable calendar year (for 1995-1999) or model year (for 2000 and later) certification emission test procedures. Any adjustable engine parameters must be set to values or positions that are within the range available to the ultimate purchaser as determined by the CARB Enforcement Officer. For example, an engine carburetor with an adjustable idle fuel/air mixture must be compliance tested at any mixture position requested by the CARB Enforcement Officer that is within the range of adjustment available to the end-use operator. Engine service accumulation (i.e., break-in) before testing may be performed on test engines to the same extent it is performed on production line testing engines (See subsection (d)). No break-in or modifications, adjustments, or special preparation or maintenance will be allowed on engines chosen for compliance testing without the written consent of the Executive Officer. Such consent must not be unreasonably withheld where such adjustment or alteration is required to render the</p>		based on this comment.

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>engine testable and reasonably operative.</p> <p>(5) If the engine manufacturer elects to specify a different break-in or adjustments, they will <u>may</u> be performed by the engine manufacturer <u>only upon written approval by the Executive Officer and</u> under the supervision of <u>C</u>ARB personnel.</p> <p>(6) Correction of damage or maladjustment that may reasonably be found to have resulted from shipment of the engine is permitted only after test of the engine, except where 100 percent of the engine manufacturer's production is given that inspection or maintenance by the engine manufacturer's own personnel. The engine manufacturer may request that the engine be repaired from shipping damage, and be retested. If the Executive Officer concurs, the engine may be retested, and the original test results may be replaced by the after-repair test results.</p> <p>(7) Engines must be 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; the "California Exhaust Emission Standards and Test Procedures for 2005-2012 Small Off-Road Engines," adopted July 26, 2004, and last amended October 25, 2012; 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 October 25, 2012, <u>and amended [insert amended date]</u>; and, the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines; Engine-Testing Procedures (Part 1065)," adopted October 25, 2012, <u>and amended [insert amended date]</u>, to determine its emissions. Unique specialty hardware and personnel normally necessary to prepare the engine for the 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 speciality <u>specialty</u> 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.</p> <p>(8) Engines must be tested in groups of five until a "Pass" or "Fail" decision is reached for each pollutant independently for the engine family or subgroup in</p>		

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response																		
		<p>accordance with the following table:</p> <table border="1" data-bbox="443 248 898 375"> <thead> <tr> <th></th> <th>Decide "Fail"</th> <th>Decide "Pass"</th> </tr> </thead> <tbody> <tr> <td>Number of Engines Tested</td> <td>If "U" is greater than or equal to</td> <td>If "U" is less than or equal to</td> </tr> <tr> <td>5</td> <td>2.18</td> <td>0.13</td> </tr> <tr> <td>10</td> <td>2.11</td> <td>0.51</td> </tr> <tr> <td>15</td> <td>2.18</td> <td>0.88</td> </tr> <tr> <td>20</td> <td>2.29</td> <td>1.16</td> </tr> </tbody> </table> <p>where:</p> $U = \frac{\sum_{i=1}^n (x_i - \mu_0)}{\sqrt{\sum_{i=1}^n (x_i - \mu_0)^2}}$ <p>xi = the projected emissions of one pollutant for the ith engine tested. μ0 = the applicable calendar year emission standard for that pollutant. n = the number of engines tested.</p> <p>(9) (8) The Executive Officer will find that a group of engines has failed the compliance testing pursuant to the above table if the Executive Officer finds that the average emissions of the any engines within the selected engine family or subgroup exceed the applicable calendar model year new engine emission standard for at least one pollutant.</p> <p>(10) If no decision can be reached after 20 engines have been tested, the Executive Officer will not make a "Fail" decision for the selected engine family or subgroup on the basis of these 20 tests alone. Under these circumstances the Executive Officer will elect to test 10 additional engines. If the average emissions from the 30 engines tested exceed any one of the exhaust emission standards for which a "Pass" decision has not been previously made, the Executive Officer will render a "Fail" decision.</p> <p>(14) (9) If the Executive Officer determines, in accordance with the procedures set forth in Subsection (a) that an engine family or any subgroup within an engine family, exceeds the emission standards for one or more pollutants, the Executive Officer will:</p> <p>(A) Notify the engine manufacturer that the engine manufacturer may be subject to revocation or suspension of the Executive Order authorizing sales and distribution of the noncompliant engines in the State of California, or enjoined from any further sales or distribution, of the noncompliant engines in the State of California pursuant to Section 43017 of the Health and Safety Code. Prior to revoking or suspending the</p>		Decide "Fail"	Decide "Pass"	Number of Engines Tested	If "U" is greater than or equal to	If "U" is less than or equal to	5	2.18	0.13	10	2.11	0.51	15	2.18	0.88	20	2.29	1.16		
	Decide "Fail"	Decide "Pass"																				
Number of Engines Tested	If "U" is greater than or equal to	If "U" is less than or equal to																				
5	2.18	0.13																				
10	2.11	0.51																				
15	2.18	0.88																				
20	2.29	1.16																				

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		Executive Order, or seeking to enjoin an engine manufacturer, the Executive Officer will consider production line test results, if any, and any additional test data or other information provided by the engine manufacturers and other interested parties, including the availability of emission reductions credits to remedy the failure.		
C-13	§ 2408.2	<p><u>(a) Applicability. The requirements of this section 2408.2 are applicable to all zero-emission generators as defined in section 2401 produced in the 2022 through 2026 model years. Participation in this program is voluntary, but if a manufacturer elects to participate, it must do so in compliance with the provisions set forth in this section 2408.2. The provisions of this section 2408.2 are limited to HC+NO_x (or NMHC+NO_x, as applicable) emissions.</u></p> <p><u>(b) General provisions.</u></p> <p><u>(1) Zero-emission generator credits may be used to offset emissions for any engine family comprised of generator engines.</u></p> <p><u>(2) A manufacturer must only include in its calculation of zero-emission generator credit generation zero-emission generators that are sold and used in California.</u></p> <p><u>(3) For an engine family using zero-emission generator credits to compensate for negative certification emission credits, a manufacturer may, at its option, include its entire production of that engine family in its calculation of credit usage for a given model year.</u></p> <p><u>(4) A manufacturer of zero-emission generators that wishes to generate zero-emission generator credits must certify zero-emission generators at a family emission level (FEL) of zero grams per kilowatt-hour.</u></p> <p><u>(A) A manufacturer of zero-emission generators that certifies an engine family as a zero-emission generator engine family may generate positive zero-emission generator credits for averaging, banking, or trading, or a combination thereof.</u></p> <p><u>(B) Except as noted in section 2408.2(b)(5)(C), an engine family certified as a zero-emission generator engine family must meet the durability requirements listed in Table 1 of this section 2408.2.</u></p>	(a) ISOR Proposed Zero-Emission Generator Credits is limited to HC + NO _x emission. CO should be added to ZEG Credits in consistent with normal credit requirement identified § 2408.	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response																																				
C-14	§ 2403(b)	<p data-bbox="451 220 961 269">Exhaust Emission Standards for Spark-Ignition Engines, Except Generator Engines and ≥ 225 cc Pressure Washer Engines (grams per kilowatt-hour)</p> <table border="1" data-bbox="438 282 970 482"> <thead> <tr> <th>Model Year</th> <th>Displacement Category</th> <th>Durability Periods (hours)</th> <th>Hydrocarbon plus Oxides of Nitrogen^(2,3)</th> <th>Carbon Monoxide⁽²⁾</th> <th>Particulate Matter⁽²⁾</th> </tr> </thead> <tbody> <tr> <td>2024 and subsequent</td> <td>< 50 cc</td> <td>300</td> <td>0.00</td> <td>536</td> <td>0.00⁽⁴⁾</td> </tr> <tr> <td>2024 and subsequent</td> <td>50-80 cc, inclusive</td> <td>300</td> <td>0.00</td> <td>536</td> <td>0.00⁽⁴⁾</td> </tr> <tr> <td>2024 and subsequent</td> <td>≥ 80 cc - < 225 cc</td> <td>500</td> <td>0.00</td> <td>549</td> <td>NA</td> </tr> <tr> <td>2024 and subsequent</td> <td>225-825 cc, Inclusive</td> <td>1,000</td> <td>0.00</td> <td>549</td> <td>NA</td> </tr> <tr> <td>2024 and subsequent</td> <td>≥ 825 cc</td> <td>1,000</td> <td>0.00</td> <td>20.6</td> <td>NA</td> </tr> </tbody> </table>	Model Year	Displacement Category	Durability Periods (hours)	Hydrocarbon plus Oxides of Nitrogen ^(2,3)	Carbon Monoxide ⁽²⁾	Particulate Matter ⁽²⁾	2024 and subsequent	< 50 cc	300	0.00	536	0.00 ⁽⁴⁾	2024 and subsequent	50-80 cc, inclusive	300	0.00	536	0.00 ⁽⁴⁾	2024 and subsequent	≥ 80 cc - < 225 cc	500	0.00	549	NA	2024 and subsequent	225-825 cc, Inclusive	1,000	0.00	549	NA	2024 and subsequent	≥ 825 cc	1,000	0.00	20.6	NA	<p data-bbox="1003 220 1514 318">Since CO emission standard was added, is it allowed for manufacturer to sell the snowthrowers even after 24MY because the snowthrowers are exempted from Evap, HC+NO_x and crankcase emission requirement?</p>	<p data-bbox="1564 220 1990 415">This comment requests clarification regarding text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's request is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p> <p data-bbox="1564 448 1990 865">The Proposed Amendments do not prohibit the sale of CARB-certified SORE. Note (5) below the exhaust emission standard tables in section 2403(b)(1) states, "(5) Engines used exclusively in snowthrowers and ice augers need not certify to or comply with the HC and NO_x standards or the crankcase requirements at the option of the manufacturer." Section 2751(c) states, "This Article does not apply to...snowthrowers or ice augers." Snowthrower engines that meet the applicable requirements of the exhaust emission regulations, including the CO emission standards, could be certified under the Proposed Amendments.</p>
Model Year	Displacement Category	Durability Periods (hours)	Hydrocarbon plus Oxides of Nitrogen ^(2,3)	Carbon Monoxide ⁽²⁾	Particulate Matter ⁽²⁾																																			
2024 and subsequent	< 50 cc	300	0.00	536	0.00 ⁽⁴⁾																																			
2024 and subsequent	50-80 cc, inclusive	300	0.00	536	0.00 ⁽⁴⁾																																			
2024 and subsequent	≥ 80 cc - < 225 cc	500	0.00	549	NA																																			
2024 and subsequent	225-825 cc, Inclusive	1,000	0.00	549	NA																																			
2024 and subsequent	≥ 825 cc	1,000	0.00	20.6	NA																																			
C-15	<p data-bbox="241 870 380 943">Excel spreadsheet: EVAP(§2750)</p> <p data-bbox="241 967 317 992">2753(e)</p>	<p data-bbox="430 870 974 992">(1) Holders may replace the nominal fuel line of a certified evaporative emission control system for which diurnal or hot soak plus diurnal emission test results were submitted as part of the certification application with an equivalent fuel line.</p> <p data-bbox="430 1000 974 1268">(2) Modification of any certified evaporative emission control systems in any manner other than replacement of the nominal fuel lines with equivalent fuel lines invalidates the certification of the control system. When any evaporative emission control system's certification is invalidated due to an unapproved modification, a new certification is required per CP-902, adopted July 26, 2004, or CP-902 adopted July 26, 2004, and amended September 18, 2017, or CP-902 adopted July 26, 2004, and last amended [insert amended date], as applicable, depending on the model year.</p>	<p data-bbox="1003 870 1514 943">Proposed text: §2753. Certification Requirements and Procedures. ...</p> <p data-bbox="1003 951 1514 992">(e) Modifications to the Evaporative Emission Control System.</p> <p data-bbox="1003 1000 1514 1040">For previously certified evaporative emission control systems:</p> <p data-bbox="1003 1049 1514 1170">(1) Holders may replace the nominal fuel line of a certified evaporative emission control system for which diurnal or hot soak plus diurnal emission test results were submitted as part of the certification application with an equivalent fuel line.</p> <p data-bbox="1003 1179 1514 1341">(2) <u>Holder may modify the other certified evaporative emission control system only if the holder demonstrated the change does not result in a new model in the evaporative family exhibiting the highest hot soak plus diurnal emission rate relative to the applicable hot soak plus diurnal emission standard and approved by Executive Officer in advance.</u></p> <p data-bbox="1003 1349 1514 1490">(32) Modification of any certified evaporative emission control systems in any manner other than replacement of the nominal fuel lines with equivalent fuel lines the provisions of subsection (1) and (2) above invalidates the certification of the control system. When any evaporative emission control system's certification is</p>	<p data-bbox="1564 870 1990 1065">This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>																																				

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
			<p>invalidated due to an unapproved modification, a new certification is required per CP-902, adopted July 26, 2004, CP-902 adopted July 26, 2004, and amended September 18, 2017, or CP-902 adopted July 26, 2004, and last amended [insert amended date], as applicable, depending on the model year.</p> <p>(43) Holders shall notify the Executive Officer in writing of any modification of any certified evaporative emission control system. The notification must include a statement citing the basis for the equivalent fuel line determination.</p> <p>Justification: The language of Sec. 2753(e)(2) requires a new CP-902 certification process for any modifications of evaporative control systems except fuel lines. "New certification" implies a full test with 140-day preconditioning is needed. However, CP-902 Sec. 5.11 accepts a document-only running change for modifications which do not override the worst case. Therefore, Sec. 2753(e)(2) should be revised to harmonize with or simply refer CP-902 Sec. 5.11.</p>	
C-16	2754(e)	For model year 2020 and subsequent model years, if carbon canisters are used in an evaporative emission control system, they must be installed in a way that prevents exposing the carbon to water or liquid fuel.	<p>Proposed text:</p> <p>"For model year 2020 and subsequent model years, if carbon canisters are used in an evaporative emission control system, they must be installed in a way that prevents exposing the carbon to water or liquid fuel <u>under the normal use of the equipment according to manufacture's instructions.</u> "</p> <p>Justification: To improve the clarity of the requirement as current text doesn't specify any condition.</p>	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.
C-17	2759(c)(4)(A)	The label heading must read: "IMPORTANT EMISSIONS INFORMATION." <u>"Important Emissions Information."</u> When combined with an exhaust label, "EMISSIONS" <u>"Emissions"</u> relates to both exhaust and evaporative emissions.	<p>This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label.</p> <p>Additionally, if a modification to the label is required, manufacturers will need sufficient lead time. This revisions proposed effective MY is unclear.</p>	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.
C-18	2759(c)(4)(E)	An unconditional statement of compliance with the appropriate model year(s) (for 2006 and later) California regulations; for example, "THIS ENGINE MEETS 2006 CALIFORNIA EVP EMISSION REGULATIONS FOR SMALL OFF ROAD ENGINES" <u>"This engine meets 2006</u>	This is inconsistent with EPA labeling and will result in the need for separate labels for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissions label.	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		California evp emission regulations for small off-road engines".	Additionally, if a modification to the label is required, manufactures will need sufficient lead time. This revisions proposed effective MY is unclear.	Notice, and CARB made no changes based on this comment.
C-19	2764(b)	<p>CALIFORNIA EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS California Evaporative Emission Control System Warranty Statement Your Warranty Rights and Obligations</p> <p>and</p> <p>MANUFACTURER'S WARRANTY COVERAGE: Manufacturer's Warranty Coverage:</p> <p>and</p> <p>OWNER'S WARRANTY RESPONSIBILITIES: Owner's Warranty Responsibilities:</p>	<p>This is inconsistent with EPA and will result in the need for separate warranties for EPA and CARB with identical information. Honda recognizes CARB desire to meet accessibility needs, however this change needs to be organized cooperatively with EPA and Industry in order to maintain a single 50-state emissoins warranty.</p> <p>Additionally, if a modification to the warranty language is required, manufactures will need sufficient lead time. This revisions proposed effective MY is unclear.</p> <p>Propose the text should remain the current language</p>	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.
C-20	<p>Excel spreadsheet: TP-902</p> <p>2.1(b)(1)</p>	<p>Determine the fuel tank system's design pressure and vacuum limits under normal operating and storage conditions considering the influence of any associated pressure/vacuum relief components. <u>To do this, measure the pressure limits using a fuel tank from an evaporative emission control system that is not used for any other portion of this test procedure by installing a pressure transducer in the fuel tank. With the exception of the use of the pressure transducer and connection to a carbon canister, as applicable, the fuel tank and fuel tank configuration used for these pressure measurements and the evaporative emission control system in which it is used shall be identical to those used on the engine tested in the remainder of this test procedure. Using compressed air of no less than 21 °C, pressurize the fuel tank with compressed air, seal the fuel tank, and measure the pressure every second for 5 minutes. Use a vacuum pump to draw a vacuum in the fuel tank, seal the fuel tank, and measure the pressure every second for 5 minutes. Record the maximum and minimum pressure measurements on the test report. Subsection (2) of this test is not required if the fuel tank pressure does not exceed a gauge pressure of + 1.0 kPa for at least one minute when pressurized and the fuel tank vacuum does not exceed a gauge pressure of – 1.0 kPa for at least one minute when a vacuum is drawn in the fuel tank.</u></p>	<p>Pressurizing fuel tank by compressed air is not appropriate unless the system consists a fuel tank pressurizing functions such as an air pump. The pressure by air injection changes depending on the flow rate of injected air and the fuel tank flow rate generated by normal use such as fuel vaporization and condensation is very limited as less as 0.1 liter/minute. Propose to add the following conditions.</p> <p>Subsection (2) of this test is not required if the fuel tank pressure does not exceed a gauge pressure of +1.0 kPa at least one minute when the air injected with flow rate at 0.10 to 0.15 liter/minute and the fuel tank vacuum does not exceed a gauge pressure of – 1.0 kPa for at least one minute when the tank is withdrawn by air pump with flow rate at 0.10 to 0.15 liter/minute.</p>	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.
C-21	2.1(b)(2)	A pressure test shall be performed by sealing the fuel tank and cycling the pressure between + 13.8 and – 3.4 kPa (+ 2.0 and – 0.5 psig) for 10,000 cycles at a rate of 60 seconds per cycle. If normal operating or storage conditions cause pressure changes greater than + 13.8	<p>Tolerance of the following conditions should be defined.</p> <ul style="list-style-type: none"> - 60 seconds per cycle - +13.8 kPa / -3.4 kPa 	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>or – 3.4 kPa to accumulate in the fuel tanks, cycle the pressure in the fuel tank between the actual high and low pressure limits experienced during normal operation or storage. If the fuel tank has no features that would cause positive or negative pressure to accumulate during normal operation or storage, then a pressure test is not required. The tank pressure test shall be performed in a 49 ± 3 °C environment with compressed air of no less than 21 °C.</p>		<p>therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>
C-22	2.1(d)(2)	<p>For vibration exposure, at a minimum, the canister must be placed in a suitable test fixture while maintaining its specified orientation (as designed). Subject the fixture to a peak horizontal acceleration of 4.5g × 60Hz × 107 times, where g is the acceleration due to Earth's gravity, 9.8 m·s⁻².</p>	<p>Propose to clarify the way to fix canisters on vibration table as follows.</p> <p>As applicable, canister should be fixed as the same manner as installed on the product. For the purpose of secured testing, additional treatment (e.g., band, tape etc.) may be applied in the extent not to interfere the vibration on canister.</p> <p>Since horizontal angle of horizontal vibration is not specified, propose "right angle to engine crankshaft".</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>
C-23	2.2(a)	<p>For evaporative emission control systems that use a carbon canister and do not pressurize the fuel tank, the carbon canister must have a working capacity of at least 1.4 grams of vapor storage capacity per liter of fuel tank nominal total capacity for tanks greater than or equal to 3.78 liters, and 1.0 grams of vapor storage capacity per liter of fuel tank nominal total capacity for tanks less than 3.78 liters. For evaporative emission control systems that use a carbon canister and pressurized fuel tank, the working capacity must be specified by the applicant. For all systems utilizing actively-purged carbon canisters, running loss emissions must be controlled from being emitted into the atmosphere.</p>	<p>Proposed text:</p> <p>"Total Capacity" means the air volume of inside fuel tank configured on a production engine with no fuel filled considering that the objects inside tank (e.g. fuel pump) occupies some of the space inside the tank. The volume inside of fuel line will not be accounted as tank volume if the volume is outside of the fuel tank outer line.</p> <p>Justification: According to the CARB's suggestion to Honda</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>
C-24	5.1	<p>Evaporative Emission Control System Preconditioning The purpose of the preconditioning period is to introduce gasoline into the evaporative emission control system and precondition all evaporative emission control system components. Precondition the evaporative emission control system by filling the fuel tank to its nominal capacity with fresh test fuel as specified in Section 6 of this procedure. After filling the tank, start the engine and allow it to run at maximum governed speed (unloaded or blade load) for approximately five minutes. Stop the engine and add fuel to fill the fuel tank to its nominal capacity. Soak the evaporative emission control system at 30 ± 10 °C for not less than 140 days. <u>Measure and record the temperature at least every five minutes. Take steps to ensure that the fuel remains at nominal capacity throughout preconditioning.</u> As an alternative, accelerated preconditioning of the evaporative emission control system can be</p>	<p>Fresh test fuel – A definition of "fresh test fuel" should be clarified.</p> <p>Adding fuel after 5-minute engine run – Because of the dead volume of initial empty fuel tank, the initial fuel fill needs to be measured by the gauge or level indicator of fuel tank, not measured by graduated cylinder. But the fuel consumption by 5-minute non-load engine operation is so negligible for the volume accuracy of initial filled volume by tank gauge. Therefore, an addition of fuel after 5-minute engine run should be optional.</p> <p>Drain and refill during preconditioning soak 15 days prior to ending preconditioning – It is impossible to fix and ensure an exact date of hot soak and diurnal test during the preconditioning period. (The test schedule may occasionally change.) At least a tolerance such like</p>	<p>In response to the statement, "Fresh test fuel – A definition of "fresh test fuel" should be clarified,": CARB disagrees with the commenter's suggestion. The term "fresh test fuel" is used in the current text of section 5.1 of TP-902. The commenter does not provide evidence, and CARB does not have information to suggest, that the term "fresh test fuel," as used in the current text of TP-902, is not understood by those performing testing according to TP-902.</p> <p>The other parts of this comment request changes to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>accomplished by soaking at an elevated temperature. <u>Accelerated preconditioning shall not be less than 70 days.</u> Data documenting that the hot soak and diurnal emissions will not increase with further preconditioning must be provided for tanks soaked less than 140 days <u>as follows: perform the test sequence in sections 5.2 through 5.4 twice, separated by at least 15 days, and calculate hot soak and diurnal emissions as described in section 5.5 of this procedure. The hot soak and diurnal emissions measured in the second test sequence must be no higher than the hot soak and diurnal emissions measured in the first test sequence to demonstrate that the hot soak and diurnal emissions will not increase with further preconditioning.</u> The fuel tank shall be filled to nominal capacity and the evaporative emission control system shall continue to be preconditioned at the elevated temperature between the test sequences. <u>Record the preconditioning temperature on the test report.</u> The period of slosh testing and ultraviolet radiation exposure may be considered part of the preconditioning period provided the ambient temperature remains within the specified temperature range and each fuel tank is at least 50 percent full; fuel may be added or replaced as needed to conduct the specified durability tests. <u>Record the fuel fill amount and dates on the test report if fuel is added or replaced. Drain the fuel tank and refill with fresh test fuel to nominal capacity 15 days prior to ending preconditioning. The fuel tank must not be empty for more than 15 minutes. Record the date and time the fuel tank is drained and refilled with fresh test fuel, and record the fuel fill amount on the test report.</u></p>	<p>± 1 week should be allowed. Since there is no assurance the test can be done in the period even if there is a tolerance, the procedure should be defined for such a case.</p> <p>There should be an option to measure emission soak after 55 days, and compare the result with result soak after 70 days</p> <p>Need clarification "no higher than" means comparison between the values after rounded to significant digit of EM standard (i.e. rounded to 0.01g)</p>	<p>requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>
C-25	5.2	<p>Refueling and Hot Soak</p> <p>Following the preconditioning period, drain the fuel tank and refill to 50 percent of its nominal capacity with test fuel. <u>The fuel tank must not be empty for more than 15 minutes. Record the date and time the fuel tank is drained and refilled with fresh test fuel, and record the fuel fill amount on the test report.</u> For evaporative emission control systems that use a an actively-purged carbon canister, the canister must be purged following the preconditioning period but prior to initiating the hot soak test. <u>Prior to purging the carbon canister, measure and record the carbon canister mass on the test report (optional).</u> Purging for an actively-purged carbon canister consists of drawing 400 bed volumes of nitrogen or dry air through the canister at the canister manufacturer's recommended purge rate. <u>For evaporative emission control systems that use a passively-purged carbon canister, purging occurs due to vacuum created in the</u></p>	<p>Propose changing the "air " back to "nitrogen or dry air", since "air" is too vague and humidity is important factor.</p>	<p>This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
		<p>fuel tank when the engine is run in this section 5.2 and during forced cooling in section 5.3 of this procedure. Measure and record the carbon canister mass on the test report after purging (optional).</p>		
C-26	5.2	<p>Perform a tilt sequence by rotating the test unit in three of the following four directions with respect to the plane on which the test unit sits and leaving the test unit in each position for 5 minutes: 90° forward, 90° backwards, 90° to the left, and 90° to the right. It is not required to tilt the engine in the direction which results in the air inlet of the engine pointing downward. This tilt sequence may be omitted for a test unit with displacement greater than or equal to 225 cc if engines from the evaporative family will not be used in equipment that is designed to be tilted during operation, transport, maintenance, or storage. Any fuel leaking from any part of the engine or evaporative emission control system denotes a failure and shall be reported on the test report. Measure and record the carbon canister mass on the test report after performing this tilt sequence (optional).</p>	<p>Exhaust emission / Evap test procedures, including engine speed/ load/ durability period/ temperature, should be considered based on the representative of actual market use, thus, tilt fuel leak caused by accidents which are not representative of an actual market usage should not be included in a requirement. Limit values and test procedures (test modes) that are required should be reflecting usual usage. Although Honda is not agreeing with the tilt requirement, if CARB insist on this sequence, we believe more specific requirement is essential to design the equipment to comply with the tilt sequence.</p> <p>Proposed text: 5.2 Refueling and Hot Soak Perform a tilt sequence by rotating the test unit in three of the following four directions with respect to the plane on which the test unit sits and leaving the test unit in each position for 5 minutes: 90° forward, 90° backwards, 90° to the left, and 90° to the right <u>with the with XX minutes interval between the rotation. Each the tilt and recovery to the normal position shall be done within YY to ZZ seconds. The tilt angle shall not exceed 90° throughout the tilt sequence.</u> It is not required to tilt the engine in the one direction which results in the air inlet of the engine pointing downward the highest possibility of fuel or oil leakage determined by <u>manufacture. Manufacturer may demonstrate and request a preapproval of specific test conditions such as tilting directions and angles based on the possible inclinations on operation, storage and transportation which is presumed from the design, structure and instruction of equipment.</u></p> <p>Our proposala are, XX = 1minites, YY = 6 seconds and ZZ = 12 secoonds, considering TP933 rule.</p> <p>Justification: There is no requirement regarding the following conditions which have significant impact on test results. -The tilt speed requirement when the equipment is tilted and returned to the original position. -The time interval requirement to keep upright position between each 90 degrees tilt. The regulation should specify both the tilt speed and time interval, and/or should allow manufacture to request preapproval of specific test conditions</p>	<p>The scope of the 15-day modifications does not include modifications to the tilt sequence included in the ISOR Proposed Amendments, except to make measuring and recording the mass of the carbon canister after purging and after performing the tilt sequence optional. The commenters' requests are not directly related to the modifications in the March 2022 15-Day Notice, nor the additional documents specified in the March 2022 15-Day Notice. Therefore, the commenters' requests are beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.</p>

Agency Response Number	Section Number	CARB's Proposed Text as Transcribed by Honda	Honda Comment	Agency Response
			considering the normal usage of the equipment in order for manufacture to be able to design equipment in the level playing field.	
C-27	6.2	<p>6.2 Canister Purge</p> <p>The sequence starts by first purging the canister with 400 bed volumes of dry air or nitrogen in 30 minutes at laboratory conditions. Bed volume is the design volume of the carbon contained in the canister. The purge rate will therefore vary with canister size. Purge may be accomplished by drawing a vacuum at the tank or purge port, or by pushing air or N2 into the atmospheric vent.</p>	Propose changing the "air " back to "nitrogen or dry air", since "air" is too vague and humidity is important factor.	The commenter expresses its opinion regarding the 15-day modification to this section. The commenter does not provide evidence to support its claims. CARB disagrees with the commenter's assertion that specifying that air is to be used to purge carbon canisters is vague.
C-28	<p>Excel spreadsheet: CP-902</p> <p>5.11</p>	<p>Running Changes and Field-Fixes Any factory change to an evaporative family during the model-year production that could potentially affect the evaporative emissions must be approved by CARB via a running change request in a revised certification application. In addition, any post assembly line change that could potentially affect the evaporative emissions (e.g., at factory warehouses, distribution centers, dealers) must be approved by CARB via a field fix request in a revised certification application; a field fix request typically occurs after the model-year production has ended. Running changes and field fixes not approved by CARB will invalidate the certification of any affected evaporative family and subject the Holder to CARB enforcement actions. If the change affects an emission-related part or results in a new model in the evaporative family exhibiting the highest hot soak plus diurnal emission rate relative to the applicable hot soak plus diurnal emission standard, new test data and engineering evaluations shall be submitted in a revised certification application to demonstrate that the evaporative family will remain in compliance. If the change does not result in a new model in the evaporative family exhibiting the highest hot soak plus diurnal emission rate relative to the applicable hot soak plus diurnal emission standard, only the affected pages and information fields of the certification application need to be submitted.</p>	<p>Proposed text</p> <p>-----</p> <p>Running changes and field fixes not approved by CARB will invalidate the certification of any affected evaporative family and subject the Holder to CARB enforcement actions. If the change affects an emission-related part or results in a new model in the evaporative family exhibiting the highest hot soak plus diurnal emission rate relative to the applicable hot soak plus diurnal emission standard, new test data and engineering evaluations shall be submitted in a revised certification application to demonstrate that the evaporative family will remain in compliance.</p> <p>Justification:</p> <p>To clarify that if the modification doesn't create a new worst case then no new full TP902 is required.</p> <p>To clarify that manufacture shall use Good Engineering Judgement for the worst case determination.</p> <p>Under current regulation, a modification which affects on emission related part but theoretically does not increase evaporative emissions could trigger new full TP902 testing. For example,</p> <ul style="list-style-type: none"> •Replacing material of original part with better permeation material. •Increasing thickness of the material for better permeation (e.g., introducing hose with thicker barrier layer, or average thickness increases due to shape change with the same material) 	This comment requests a change to text in the SORE regulations that was not subject to any proposed modification described by the March 2022 15-Day Notice. Honda's requested change is therefore beyond the scope of the 15-Day Notice, and CARB made no changes based on this comment.