State of California
AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Responses**

PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO THE
RED STICKER PROGRAM FOR OFF-HIGHWAY RECREATIONAL VEHICLES

Public Hearing Date: **April 25, 2019**
Agenda Item No.: **19-4-1**

I. GENERAL

The Staff Report: Initial Statement of Reasons for Rulemaking (staff report), entitled "Initial Statement of Reasons: Public Hearing to Consider the Proposed Amendments to the Red Sticker Program for Off-Highway Recreational Vehicles," released March 5, 2019, is incorporated by reference herein and contains a description of the rationale for the proposed amendments. On March 5, 2019, all references relied upon and identified in the staff report were made available to the public.

On April 25, 2019, following a 45-day comment period, the California Air Resources Board (CARB or Board) held a public hearing to consider the proposed amendments to set standards for Red Sticker off-highway recreational vehicles (OHRV) described in the Staff Report and associated Notice of Public Hearing (45-Day Notice). The regulatory amendments are set forth in title 13, division 3, chapter 9, article 3, sections 2411, 2412, 2415, 2416, 2418, and 2419.4 of the California Code of Regulations.

At the hearing, the Board received oral and written comments. At the conclusion of the hearing, the Board adopted Resolution 19-11, in which it approved the originally proposed amendments to the OHRV regulation. Resolution 19-11 directed the Executive Officer to incorporate the modifications described in Attachment B into the originally proposed regulatory text along with other conforming modifications as appropriate.

If so, Resolution 19-11 directed the Executive Officer to make the modified regulations (with the modifications clearly identified) and any additional documents or information relied upon available for a supplemental 15-day public comment period. The Executive Officer was directed to consider any comments on the modifications received during any supplemental 15-day public comment period. The Executive Officer was then authorized to: either (1) adopt the modified regulation as it was made available for public comment, with any appropriate additional modifications; or (2) make all additional modifications available for public comment for a period of at least 15 days; and (3) present the regulations to the Board for further consideration, if warranted.

Based on comment received during the 45-day public comment period and during the April 25, 2019 public hearing, the Executive Officer determined that additional modifications were needed in order to improve clarity and more fully achieve the intention of the original proposal. These post-hearing modifications were incorporated into the text of the proposed regulation, along with the modifications specifically identified in Attachment B to Resolution 19-11. The text of the proposed modifications to the regulations was made available for a 15-day public comment period by issuance of a "Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information" (15-Day Notice). The 15-day comment period started on July 8, 2019, and ended on July 26, 2019.

On the date that the notice of modified text and all attachments were posted on the internet, the posted documents were also electronically distributed to other parties identified, per section 44(a), Title 1, California Code of Regulations, in accordance with Government Code section 11340.85, and to all persons having subscribed to the following CARB listserv: "orrec."

This Final Statement of Reasons (FSOR) updates the Staff Report by identifying and providing the rationale for the modifications made to the originally proposed regulation. The FSOR also contains a summary of the comments received during the formal rulemaking process by CARB on the proposed amendments or the process by which they were adopted, and CARB's responses to those comments.

A. Mandates and Fiscal Impacts to Local Governments and School Districts

The Board has determined that this regulatory action will not result in a mandate to any local agency or school district the costs of which are reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

B. Consideration of Alternatives

For the reasons set forth in the Staff Report, in staff's comments and responses at the hearing, and in this FSOR, the Board determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or would be as effective and less burdensome to affected private persons, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law than the action taken by the Board.

II. MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL

A. Modifications Approved at the Board Hearing and Provided for In the 15-Day Comment Period

Pursuant to the Board direction provided in Resolution 19-11 on April 25, 2019, CARB released a 15-Day Notice on July 8, 2019. The 15-Day Notice describes each substantial modification to the original proposal. This section contains a description of the additional modifications made during the 15-day comment period from July 8, 2019 through July 26,

2019, which addresses sections 2412, 2418, and 2419.4, Title 13 California Code of Regulations and sections 86.410-90(a)(1), (a)(2), and (a)(3), 86.410-90(b), and 86.410-90(e) of the California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines.

1. Modifications to Section 2412. Emission Standards and Test Procedures New Off-Highway Recreational Vehicles and Engines

- *Section 2412(b)(1):* This proposal removes "1.2 grams per kilometer" and adds the word "applicable" in footnote 3 to the table titled *"Exhaust Emission Standards Based on Chassis-Based Testing."* It is modified to refer more generally to the applicable hydrocarbon (HC) or hydrocarbon plus oxides of nitrogen (HC + NOx) standard rather than a specific standard. This change is needed because standards for all-terrain vehicles (ATVs) and utility vehicles change incrementally from 2021 through 2028, and the corporate fleet averaging provisions can be used to meet whatever the applicable standard is in any given year.

- *Section 2412(c)(1) and (d)(1):* The proposal deletes the existing reference to the last amended date as October 25, 2012, and replaces it with the proposed regulation's new effective date. These sections are modified to update the amendment date of the incorporated document, known as the *"California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines."* The 45-day proposal included changes to emissions standards and test procedures that need to be incorporated into this document for consistency. Those amendments, therefore, require that these sections be updated to acknowledge the effective date of those amendments.

2. Modifications to Section 2418. Evaporative Emission Standards and Test Procedures

- *Section 2418(b)(1):* The proposal deletes the fuel hose permeation of "5.0@ 35° C (95° F)" and inserts "15.0 @ 23° C (74° F)" in Table 2. The standard for fuel hose permeation in Table 2 is modified to be consistent with the U.S. Environmental Protection Agency (U.S. EPA) permeation requirements. Staff conducted a review of CARB certified fuel hoses for various applications (small off-road engines, watercraft) and found that only two hoses had been certified to meet the previous standard of 5 grams per square meter per day ($g/m^2/day$). Those hoses are very rigid, and are therefore not well suited to OHRV applications. Amending this standard to be consistent with U.S. EPA requirements provides a reasonable degree of emissions control while ensuring a range of certified fuel hoses will be available.

- *Section 2418(c)(2):* This section is modified to clarify that a manufacturer may also use the alternative certification process outlined in section 2418(e) when certifying evaporative emissions control systems. The proposed amendments to

section 2418(e) in the 45-day proposal would allow for this alternative certification process and the new proposed modification to 2418(c)(2) acknowledges this. This was inadvertently not included in the original regulation order and is now proposed to be updated for consistency.

- *Section 2418(c)(2)(A) and (B):* The test procedures for fuel hose and fuel tank permeation are modified to be consistent with U.S. EPA permeation requirements (40 CFR Part 1060.515(a)(1) for fuel hose permeation and 40 CFR Part 1051.515 for fuel tank permeation). Section 2418(c)(2)(A) also clarifies that it incorporates by reference ASTM 0471-06, Standard Test Method for Rubber Property-Effect of Liquids, approved October 1, 2006 ("ASTM 0471"). These sections of the federal regulations are incorporated by reference into California Code of Regulations, Title 13 because it helps to specify the required test fuel and harmonize with federal requirements. Harmonizing with U.S. EPA requirements will allow manufacturers to market the same OHRV products in the California and U.S. markets, eliminates the need for duplicative testing, and keeps consistent with industry standards. This will help to reduce compliance costs and ensure a wide range of certified OHRV are available in the California marketplace.

- *Section 2418(c)(3):* This section describes the required procedure for obtaining CARB certification for evaporative control components - fuel tank, hose, and carbon canister. The previous proposal referenced the existing certification procedure for spark-ignition marine watercraft. This has been modified to reference the existing OHRV small volume manufacturer process in section 2419.4(b)(3). The result is that all evaporative control components for OHRV will be certified by CARB using the same process.

- *Section 2418(e):* The engine displacements listed in Tables 3, 4 and 5 are modified by increasing them from 110 cubic centimeters (cc) to 112cc. The proposal is intended to capture all OHRV manufacturer's youth models that are marketed as 110cc or less. Some of these youth-oriented models are marketed as 110cc but have an actual engine displacement of slightly more than 110cc. By changing the requirement from 110cc to 112cc these models are eligible for the alternative evaporative control standards that are in place for small displacement, youth-oriented models. Additionally, the fuel hose permeation standards in Table 3 (Alternative Standards for Off-Road Motorcycles) and Table 4 (Alternative Standards for ATVs) are modified to harmonize with U.S. EPA requirements (15 g/m^2/day at 23°C) through 2026, then transition to more stringent California-specific requirements (15 g/m^2/day at 40°C) from 2027 onward. Harmonizing with U.S. EPA requirements will allow manufacturers to market the same OHRV products in the California and U.S. markets, and eliminates the need for duplicative testing through 2026. The more stringent California-specific requirements (15 g/m^2/day at 40°C) will further reduce evaporative emissions from OHRV in 2027 and beyond. The proposed standard is identical to the current hose permeation standard for small off-road engines, and more than 100

hose models are currently CARB approved, so staff is confident that the standard is technically feasible and cost effective.

3. Modifications to Section 2419.4. Evaporative Emissions Control System Testing and Certification Requirement

- *Section 2419.4(b)(1), (3), and (5):* The certification requirements for evaporative emissions control system testing is modified to clarify that alternative standards found in section 2418(e) and test procedures in section 2418(c) are permissible as set forth in the 45-day proposal. This was inadvertently not included in the original regulation order and section 2419.4(b) is now proposed to be updated for consistency.

- *Section 2419.4(b)(4)(J):* The proposal deletes the words "small volume" and "Table 2" from the regulatory text and adds section 2418(e) to the certification requirements. The proposal clarifies that the design-based certification process applies to all OHRV manufacturers, not just small volume manufacturers. It also allows manufacturers to use an evaporative control system made up of CARB approved fuel hose, fuel tank, and carbon canister. Vehicles certified through the design-based certification process do not need to have a full evaporative system test, and can be CARB certified based on the certification of their individual evaporative components. Previously, design-based certification was limited to small-volume OHRV manufacturers only. The alternative procedures in section 2418(e) allow for design-based certification for certain OHRV from all manufacturers, regardless of manufacturer size, so this section is amended to clarify applicability of the design-based certification process.

- *Section 2419.4(b)(5)(C):* The proposal deletes the words "generated by an independent laboratory," adds in the word "section" before 2418(c)(2), and adds in an allowance for the Executive Officer to approve evaporative emission control system components that have been approved by the U.S. EPA in accordance with 40 CFR Parts 1051 and 1060. These sections of the federal regulations are incorporated by reference into California Code of Regulations, Title 13. The requirement for independent laboratory testing is deleted to be consistent with the U.S EPA requirements for OHRV, and with the CARB requirements for small off road engines (SORE). Removing the requirement for an independent testing lab will reduce compliance costs by eliminating duplicative testing and allowing OHRV manufacturers to use certified SORE fuel hoses for OHRV. This section is also amended to explicitly allow for CARB certification of OHRV evaporative control components (tanks fuel hoses, and carbon canisters) that have been approved for OHRV by U.S. EPA from 2020 through 2026. This change is necessary to harmonize with U.S. EPA requirements to allow manufacturers to market the same OHRV products in the California and U.S. markets, and eliminates the need for duplicative testing through 2026. Beyond 2026, evaporative components will be subject to more stringent CARB-specific

standards and certification procedures that will deliver additional emission reductions.

4. Modifications to section 86.410-90(a)(1), (a)(2), and (a)(3) of the document known as *California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines,* which is incorporated by reference

The proposal amends section 86.410-90 (a)(1), (a)(2), and (a)(3) by adding "Unless otherwise specified in California Code of Regulations, Title 13, section 2412." The exhaust emissions standards set forth in California Code of Regulations, Title 13, section 2412 were modified for certain years. The 45-day proposal included changes to some of the emissions standards in section 2412. The new proposal updates the Test Procedures to allow for a different exhaust emission standard where section 2412 allows for a different exhaust emission standard. This is necessary to provide consistency amongst the exhaust emission standards in section 2412 and the Test Procedures.

5. Modifications to section 86.410-90(b) of the document known as *California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines,* which is incorporated by reference

The proposal also removes "HC" and the "2.5g/km" standard from section 86.410-90 (b)'s "STDjx" definition and adds "10 g/km HC or 20 g/km HC+NOx" as well as a fourth criteria for zero emission OHRV to be assigned an emission standard of negative 1 (-1). These changes are consistent with the 45-day proposal, section 2412(d)(1), and are intended to incentivize development of zero emissions OHRV and provide OHRV manufacturers with greater flexibility in corporate fleet emissions averaging. As explained in the Initial Statement of Reasons, certain OHRV models may be better suited to more stringent emissions controls than others. For example, it may be easier for manufacturers to incorporate catalytic converters and sophisticated electronic engine management on a large off-highway utility vehicle than a small off-highway motorcycle. By providing greater flexibility in corporate fleet emissions averaging, the proposal helps manufacturers to bring a wide range of certified OHRV to the California market while still controlling overall emissions.

6. Modifications to section 86.410-90(e) of the document known as *California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines,* which is incorporated by reference

The proposal also revises section 86.410-90 (e)(1) to extend as an option to the standards for OHRV and ATVs to be limited to model years 2003 through 2021, extending the operation during certain periods of riding areas until January 1, 2025. These changes are consistent with the 45-day proposal, sections 2415 and 2416, and are intended to end the current regulatory provision that allows for CARB certification and recreational use of off-highway motorcycles and ATVs with no emissions controls.

The current regulation allowing for certification and recreational use of uncontrolled OHRV, commonly referred to as the "Red Sticker Program," was adopted in 1997 as a temporary measure to provide manufacturers with additional time to develop a full range of OHRV that comply with emissions standards. As explained in the Initial Statement of Reasons, staff has determined that the control technologies needed to comply with emissions standards are readily available, and the Red Sticker program should be ended in order to reduce OHRV emissions and help improve air quality in California.

B. Non-Substantial Modifications

In addition to the modifications described above, modifications correcting grammar, punctuation and spelling have been made throughout the proposed changes. These non-substantive changes are described below:

- Section 2411: Corrected the numbering of definitions 18 through 21.
- Subsection 2412(i): Corrected the spelling of the word "package" and updated the revision date of the test procedure that is incorporated by reference.
- Section 2419.4(b): Deleted a stray "s."
- References to the Emissions Compliance, Automotive Regulations, and Science Division have been amended to refer to the Emissions Certification and Compliance Division. This non-substantive change has been made to each of the following subsections: 2419.4(b)(1)(F), 2419.4(b)(2)(F), 2419.4(e)(2), and 2419.4(f)(1)(A)
- Section 2419.4(b)(5)(C): Incorporation by reference of Parts 1060 and 1051, Title 40, CFR, was modified to reference as amended September 16, 2010, and as amended April 30, 2010, respectively.

Additionally, modifications for consistency and to correct grammar were made throughout the text. These modifications, and the above described modifications, constitute non-substantial changes to the regulatory text and do not materially alter the requirements or conditions of the proposed rulemaking action.

III. DOCUMENTS INCORPORATED BY REFERENCE

The regulation and the other incorporated other documents adopted by the Executive Officer incorporate by reference the following documents:

- Title 40, Part 1060, section 1060.515(a)(1), Code of Federal Regulations, last amended on February 19, 2015, and incorporated by reference in section 2418(c)(2)(A).
- ASTM D471-06, Standard Test Method for Rubber Property -Effect of Liquids, approved October 1, 2006 (ASTM D471), incorporated by reference in section 2418(c)(2)(A).
- Title 40 Part 1051, section 1051.515, Code of Federal Regulations, last amended on July 13, 2005, and incorporated by reference in section 2418(c)(2)(B).

- Title 40, Part 1060, Code of Federal Regulations, last amended September 16, 2010, or on the date otherwise specified by each of the aforementioned provisions of Title 40, incorporated by reference in section 2419.4(b)(5)(C).
- Title 40, Part 1051, Code of Federal Regulations, last amended April 30, 2010, or on the date otherwise specified by each of the aforementioned provisions of Title 40, incorporated by reference in section 2419.4(b)(5)(C).
- California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicles and Engines, last amended October 9, 2019, incorporated by reference in section 2412(c)(1) and (d)(1).

These documents were incorporated by reference because it would be cumbersome, unduly expensive, and otherwise impractical to publish them in the California Code of Regulations. In addition, some of the documents are copyrighted, and cannot be reprinted or distributed without violating the licensing agreements. The documents are lengthy and highly technical test methods and engineering documents that would add unnecessary additional volume to the regulation. Distribution to all recipients of the California Code of Regulations is not needed because the interested audience for these documents is limited to the technical staff at a portion of reporting facilities, most of whom are already familiar with these methods and documents. Also, the incorporated documents were made available by CARB upon request during the rulemaking action and will continue to be available in the future. The documents are also available from college and public libraries, or may be purchased directly from the publishers.

IV. LIST OF COMMENTERS AND AFFILIATIONS

Written comments were received during the 45-day comment period in response to the April 25, 2019 public hearing notice, written and oral comments presented at the April 25, 2019 public hearing, and written comments received during the 15-day comment period.

Listed below are the organizations and individuals that provided comments during the 45-day comment period.

Table 1. Written comments submitted during the 45-day comment period.

Commenter	Date of Comment	Affiliation
Canfield, Dan	04-26-2019	California State Parks (CSP)
Haris, Nicolas	04-26-2019	American Motorcyclist Association (AMA)
Smith, Kevin	04-04-2019	None (KS)
Amador, Don	04-11-2019	American Motorcyclist Association (AMA) District 36
Barnes, Eric	04-16-2019	Motorcycle Industry Council (MIC)
Lawrence, Rich	04-16-2019	None (RL)
Whitaker, Matthew	04-16-2019	None (MW)
Brock, Matt	04-16-2019	None (MB)

Bragg, John	04-16-2019	None (JB)
Schutz, David	04-16-2019	None (DS)
Bittner, Nick	04-16-2019	None (NB)
Hall, Shad	04-16-2019 04-18-2019	None (SH),(SH2)
Gonzalez, Paul	04-16-2019	None (PG)
Wohn, Spencer	04-17-2019	None (SW)
Smith, Ken	04-17-2019	None (KS2)
Glazebrook, Rod	04-17-2019	None (RG)
Black, Brandon	04-17-2019	None (BB)
Brenan, Russ	04-17-2019	Kawasaki Motor Corporation USA (KWS)
Bowman, Phillip	04-17-2019	None (PB)
Knapp, Don	04-17-2019	None (DK)
Bibb, Kirk	04-17-2019	None (KB)
Withrow, Robert	04-17-2019	None (RW)
Machado, Nathan	04-17-2019	None (NM)
Maas, Scott	04-17-2019	Lassen Motorcycle Club (LMC)
De Haan, Gregg	04-17-2019	None (GD)
Lucchessi, Tony	04-17-2019	None (TL)
Brunn, Curtis	04-17-2019	None (CB)
Moore, Gary	04-17-2019	None (GM)
Simmons, Tim	04-17-2019	None (TS)
Brandt, Carl	04-17-2019	CCMA (CB2)
Watts, Trevor	04-18-2019	None (TW)
Yamane, Richard	04-18-2019	None (RY)
Nafarrete, David	04-18-2019	None (DN)
Kamphaus, Todd	04-18-2019	None (TK)
Bumb, Gregory	04-18-2019	Motorcycle Dealership Owner (MDO)
Garrahan, Patrick	04-18-2019	None (PGa)
Master, Paul	04-18-2019	Sacramento PITS Trials Club (SPTC)
Chamberlin, Ryan	04-18-2019	None (RC)
Almond, Thomas	04-18-2019	Motion Pro, Inc (MP)
Baldwin, Brandon	04-18-2019	Motion Pro, Inc (MP)
McCulloch, Sean	04-18-2019	None (SM)
Pope, Jim	04-18-2019	None (JP)
Means, Justin	04-19-2019	None (JM)
Hudspeth, Randy	04-19-2019	None (RH)
McIntosh-tom, Doug	04-20-2019	None (DM)
Ramsay, Drew	04-21-2019	North Bay Motorcycle Club (NBMC)
McDonell, Ron	04-22-2019	None (RM)
Woolsey, Lynn	04-22-2019	None (LW)
Ball, K. Randall	04-22-2019	None (RB)
Havlik, Frank	04-22-2019	None (FH)
Edwards, Tim	04-22-2019	None (TE)
Carter, Chris	04-22-2019	None (CG)

Geller, Michael	04-22-2019	Manufacturers of Emission Controls Association (MECA)
Keller, Lawrence	04-22-2019	Polaris (PO)
Hubbard, David	04-22-2019	Gatzke Dillon & Balance LLP (GDB)
Carr, Bernard	04-22-2019	None (BC)
Haris, Nicolas	04-24-2019	American Motorcyclist Association (AMA2) District 37
Paliwoda, John	04-24-2019	California Motorcycle Dealers Association (CMDA)

Listed below are the organizations and individuals that provided comments during the April 25, 2019 Board Hearing.

Table 2. Oral comments given at the April 25, 2019 Board Hearing.

Commenter	Date of Comment	Affiliation
Canfield, Dan*	4-25-2019	CSP
Barnes, Eric*	4-25-2019	MIC
Haris, Nicolas*	4-25-2019	AMA2
Paliwoda, John*	4-25-2019	CMDA
Granat, Amy	4-25-2019	California Off-Road Vehicle Association (CORVA)
Brezney, Rasto	4-25-2019	Manufacturers of Emission Controls Association (MECA2)
Stanton, Ed	4-25-2019	American Motorcyclist Association (AMA3) District 36
Moreno, Abraham (2019-04-26)	4-25-2019	None (AM)
Culton, Molly	4-25-2019	None (MC)
Stiaszny, Martin	4-25-2019	None (MS)
Buck, Shane	4-25-2019	None (SB)
Barrett, Will	4-25-2019	American Lung Association (ALA)
Agavern, Bill	4-25-2019	Coalition for Clean Air (CCA)

The commenters listed above with an asterisk (*) also submitted written comments in addition to oral testimony at the April 25, 2019 Board Hearing.

Table 3. Written comments submitted during the 15-day comment period.

Commenter	Date of Comment	Affiliation
Baviere, Olivier	7-08-2019	None (OB)
Hakotani, Ace	7-25-2019	Kawasaki (KAW)

V. SUMMARY OF COMMENTS AND AGENCY RESPONSE

1. Comment: Emissions from the OHRV segment are too small to warrant regulation. CARB should focus on other larger population categories that drive more often and produce more pollution that OHRVs. (GD) (GM) (CB2) (RY) (SH) (RC) (DM) (FH) (CMDA) (MIC)

   Agency Response: CARB staff made no changes based on the received comment. CARB staff acknowledges that the OHRV segment is small relative to some other mobile source categories such as light duty passenger vehicles and heavy-duty diesel trucks. However, CARB's mobile source strategy seeks reductions from all categories - from passenger cars to gas powered lawn and garden equipment. In fact, section 43000.5(c) of the California Health and Safety Code specifies, "the burden for achieving needed reductions in vehicle emissions should be distributed equitably among various classes of vehicle including both on-road and off-road." The proposal accounts for the relatively small size of the OHRV category by minimizing the cost of compliance through alternative certification pathways and harmonization with U.S. EPA standards.

2. Comment: The proposed end of the red sticker certification program would impact competition events, riders, and other stakeholders. It is important to have the ability to ride and practice on competition vehicles. Competition events on public lands should continue to be allowed. Practice is necessary for riders to train, tune their vehicles, and evaluate different terrain before competitive events. Competition practice is needed to ensure the safety of riders during competition events. Most often practice is limited to a few hours per race and a few times per month. Please consider alternatives to support training and practicing for competition motorcycles. (MIC) (KS) (RL) (MW) (RG) (BB) (RW) (NM) (GD) (TL) (TS) (NB) (TW) (SPTC) (BB) (JM) (RM) (LW) (FH) (TE) (CC) (AMA) (CMDA) (MIC) (AMA2) (DC)

   Agency Response: CARB staff made no changes based on the received comment. Racing vehicles, defined as competition vehicles not used on public highways are exempt from CARB emission standards. (*See* Health & Saf. Code §§ 39048, 43001.) U.S. EPA regulations specify the use of competition vehicles is limited to closed courses and competition events. No specific provisions exist in California law to address competition-related practice riding. The proposed regulatory amendments do not change current restrictions on competition vehicle usage. CARB staff acknowledges that there is a need for competition practice and is working with the State Parks Off-Highway Vehicle (OHV) Division, Department of Motor Vehicles (DMV), and competition sanctioning organizations to help address these concerns ahead of the proposed 2022 implementation date for ending red sticker vehicle certification. Manufacturers and

OHRV riding groups are engaged in the process as well. CARB staff understands that racers need to practice, and we support allowing competition vehicles to practice on public lands so long as that practice is done in conjunction with a competitive event. Land managers and race sanctioning bodies should take the lead in determining exactly how to provide adequate practice opportunities on the courses where competitive events are held. CARB staff will support this effort and continue to work with stakeholders to develop mechanisms to accommodate competition racing and practice.

3. Comment: I am writing in support for American Motorcyclist Association (AMA) District 36, proposed alternative to the proposed rulemaking and do not support the CARB proposal. The AMA proposal specifically requests that CARB consider the following:

    - Ensure law enforcement has the ability to access vehicle ownership and registration for competition off-road motorcycles through use of a 17 digit VIN. Additional benefit for financing and insuring competition labeled off-road only motorcycles.
    - Ensure competition off-road motorcycle owners fund OHV-related land management, restoration, law enforcement, vehicle registration, safety, education, and youth training programs.
    - Allow for the purchase, operation, and resale of competition labeled off-road motorcycles for use by racers at sanctioned “closed-course” or skill-based off-road motorcycle competition events (i.e. GP, Hare Scrambles, Enduros, Trials, etc.) and for practicing for participation at sanctioned off-road motorcycle competition events.
    - Safeguard the future of off-road motorcycle races/events and related race practicing. (RL) (MW) (KS2) (PB) (DK) (KB) (RW) (NM) (LMC) (TL) (CB) (TS) (CB2) (NB) (DN) (SH2) (TK) (SPTC) (BB) (SM) (JP) (JM) (DR) (RM) (LW) (FH) (AMA) (CMDA) (MIC) (AMA2) (DC) (AM)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB’s proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. However, CARB’s position is that these issues are important to the longevity of the OHRV industry. CARB staff supports the objectives of the AMA proposal, specifically to encourage the use of emissions compliant OHRV for general recreation while preserving practice and racing opportunities for competition OHRV. The proposal from AMA does not conflict with CARB’s regulatory proposal. Instead, the AMA proposal lays out a possible path for identification and registration for competition vehicles. The AMA proposal is complementary to the current regulatory proposal and staff supports the process that AMA is proposing.

4. Comment: Riding red sticker OHRVs helps to alleviate stress, and red sticker vehicles are the only vehicles that offer safe components for riding. (MB)

Agency Response: CARB staff made no changes based on the received comment. CARB staff has worked with industry and stakeholders to provide the least burdensome proposal to industry while meeting California's air quality objectives. From 2022 through 2027, CARB's emission control requirements for off-highway motorcycles will be identical to what U.S. EPA requires in the other 49 states. CARB anticipates that the proposal will have minimal impact on industry, and there will be a wide selection of models available for riders. The proposal ensures that a wide range of certified and competition-only models will be available for sale when the Red Sticker program ends. From 2022 through 2027, the same range of models will be available to California dealers as are available in the rest of the nation. CARB staff anticipates that most red sticker models will continue to be available, either as emission compliant or competition exempt models.

5. Comment: This is not right. These amendments would restrict movement on lands operated and maintained by the State and imposes more restrictions than the benefits warrant. OHRV recreation is a hobby and helps to alleviate stress. Most off-roaders are responsible people who enjoy the activity with their family and friends and bring money into communities. These amendments would eliminate places for youth to ride and expand on their skills. Please do not limit access of OHRVs. Racing and practicing on public lands provides family recreation. I am able to enjoy these recreational facilities with my family. We accept that during summer months, we are restricted to the use, but to eliminate the use is extreme. (JB) (DS) (KB) (TS) (NB) (SH2) (MDO) (JP) (DM) (DR) (LW) (TE) (CC) (CMDA) (MIC)

   Agency Response: CARB staff made no changes based on the received comment. The regulatory amendments do not restrict access to any public OHRV riding areas, and is not intended to impede or eliminate OHRV usage. In fact, under the proposal riders will have more access to year-round riding areas in 2025 when the red sticker seasonal riding restrictions end for existing red sticker vehicles. Many OHRV riders have become accustomed to the Red Sticker program, which allows competition exempt vehicles to be operated recreationally on public lands with seasonal restrictions. For model year 2022 and beyond, OHRV enthusiasts will need to purchase emissions compliant models if they intend to ride recreationally on public lands. Competition exempt vehicles can still be purchased for use in racing events and related practice.

6. Comment: Please consider ending the red sticker riding season. The red sticker program is unnecessary and unfairly discourages and punishes a specific portion of the population. (NB) (SH) (PG) (GM) (NB) (SM)

   Agency Response: CARB staff made no changes based on the received comment. The Red Sticker program does not work as intended and CARB is proposing to end the program. The proposed amendments set an end date for the Red Sticker program and the seasonal riding restrictions in 2025. At that time all of the existing red sticker vehicles will be grandfathered in and will be able to ride year round.

7. Comment: I support the proposed amendments. (PG) (AMA2) (AMA3) (MC) (MS)

   Agency Response: CARB staff made no changes based on the received comment. The proposed amendments were designed to end the red sticker program with minimal impact to industry and riders while seeking the most cost effective emission reductions. CARB appreciates the support.

8. Comment: Race bike restriction and fee increase is an abuse of a group that already contributes a significant amount. OHRV fees are constantly increased by the State while shutting down riding areas. (SW)

   Agency Response: CARB staff made no changes based on the received comment. This comment appears to be directed at the AMA proposal to manage competition OHRV usage once the red sticker program ends in 2022. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. Moreover, CARB is not advocating an increase in fees for racing bike competition events.

9. Comment: Emissions are small from newer 4-stroke fuel injection off-highway motorcycles (OHMCs). Only a small amount of fuel is burned resulting in low emissions. (GD) (GM)

   Agency Response: CARB staff made no changes based on the received comment. Based on emissions data collected as part of this rule development, staff concurs that exhaust emission from newer 4-stroke OHMCs are relatively low. All 4-stroke OHMCs in our emissions test program measured below the allowable exhaust limits. However, overall emissions from OHMCs are the combined result of exhaust and evaporative emissions. Exhaust emissions occur during operation (while the engine is running), while evaporative emissions occur during riding, resting, and storage events. Because OHMCs are ridden relatively few times per year, fuel evaporation during storage is the largest component of overall emissions. Even small amounts of fuel in the tank can result in significant evaporative emissions during extended storage periods. The evaporative controls that staff is proposing are technically feasible and cost effective. The controls are small and lightweight, and will significantly reduce evaporative emissions while not adversely impact vehicle performance.

10. Comment: The CARB proposal relies on incomplete data. Please provide the information that supports the rulemaking for red sticker vehicles. Commenters question the methodology of the emission estimate as it was derived through calculations and not by a single ambient onsite in-use measurement. (TL) (RC) (CC) (CMDA)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff conducted a comprehensive assessment of the red sticker program including a population evaluation, emission testing, and a red sticker owner survey.

The population evaluation included the development of a more accurate VIN decoder to better characterize California's OHRV population. Staff also conducted exhaust and evaporative emissions testing of more than twenty off-highway motorcycles to establish emission factors for various vehicle classes (two-stroke, four-stroke, large displacement, small displacement, carbureted, fuel injected, etc.). CARB also conducted a survey of more than 3,000 OHMC owners to determine the activity and usage of OHMC throughout California. This information was used to update CARB's emissions model (RV2018) which was used to estimate statewide emissions from OHRV. Development of the RV2018 emissions model is described in Appendix C of the Staff Report, and all of the information and calculations used to estimate emissions were made available to the public during the rulemaking process.

11. Comment: The proposal would eliminate the availability of red sticker dirt bikes and would ban sale and use of competition motorcycles. (NB)(TW)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff worked with industry and stakeholders to provide the least burdensome proposal to industry while meeting California's air quality objectives. From 2022 through 2027, CARB's emission control requirements for off-highway motorcycles will be identical to what U.S. EPA requires in the other 49 states. CARB anticipates that the proposal will have minimal impact on industry, and there will be a wide selection of emissions compliant models available for riders and dealers. The proposal also allows for the sale of competition vehicles with no emission controls, although use of those vehicles on public lands would be limited to closed courses and competition events consistent with U.S. EPA regulations.

12. Comment: The California OHMC market is too small to withstand the cost of regulation. In the CARB proposal, it is stated that the increase in cost per motorcycle is $333. I can tell you from purchasing bikes that that number is grossly low and the financial impact by the average citizen is high. The high cost associated with CARB's proposal would essentially eliminate the family friendly activity of OHVs and severely impact local agencies businesses as well as the riding community and towns. More stringent emission requirements will destroy the industry and force dealers into bankruptcy. (NB) (PGa) (RC) (RH) (DM) (DR) (FH) (CC) (CMDA) (MIC)

    Agency Response: CARB staff made no changes based on the received comment. As part of the rulemaking process, CARB conducts an economic analysis to determine the most feasible and cost effective way to achieve emission reductions. CARB takes into consideration the size of the category, OHRVs sold, and the cost impacts to businesses and the individual consumer. CARB understands that it is important to minimize the costs of research and development of OHRV controls since those costs must be spread across relatively few vehicles. The proposal does this by allowing the transfer of emission controls from other categories, and by harmonizing with the U.S. EPA standards to spread development costs over the larger market. The estimated increase in retail cost of $333 per OHRV applies only

to current red sticker models that will be redesigned to include newly required emissions controls. There will be no cost increase for current emission compliant models, or for red sticker models that will be marketed in the future as competition exempt.

13. Comment: The proposal would affect youth riding. (TW) (AM)

    Agency Response: CARB staff made no changes based on the received comment. CARB recognizes that the lower cost and smaller size of youth models makes it more difficult to add emissions controls to those vehicles. The proposal includes provisions to ensure that a wide range of youth models will continue to be available. Provisions include a less stringent evaporative emissions standard for youth models up to 112cc, and fleet emissions averaging that will provide manufacturers with flexibility to continue marketing youth models. Based on discussions with manufacturers, CARB staff anticipates that youth models will not be significantly impacted by the proposal.

14. Comment: Businesses rely on customers who enjoy off-highway riding and these amendments would eliminate businesses.

    Agency Response: CARB staff made no changes based on the received comment. CARB staff worked with industry and stakeholders to provide the least burdensome proposal to industry while meeting California's air quality objectives. From 2022 through 2027, CARB's emission control requirements for off-highway motorcycles will be identical to what U.S. EPA requires in the other 49 states. CARB anticipates that the proposal will have minimal impact on industry, and there will be a wide selection of models available for both recreational and competitive riders.

15. Comment: OHRV are used in rural areas with no air quality problems, and therefore should not be regulated. (PGa)

    Agency Response: CARB staff made no changes based on the received comment. CARB's strategy for controlling emissions from mobiles sources is to establish statewide vehicle emissions standards. We cannot control where or when vehicles are used within the state, so it is reasonable to have all vehicles meeting the same emissions standards. Furthermore, the majority of emissions from OHRV occur not from exhaust during operation, but as fuel evaporates during periods when the vehicle is being stored. Most OHRV in California are stored in densely populated areas of the state where air quality does not meet federal standards, such as within the South Coast Air Quality Management District.

16. Comment: The green sticker program works fine and should be amended to allow for year-round riding, the proposal does not make sense to allow for older OHRV to ride year round but restrict newer cleaner products. (PGa)

Agency Response: CARB staff made no changes based on the received comment. The current red sticker program does not work as originally intended when created more than 20 years ago. As stated in the initial statement of reasons, the program allows riders to ride year round recreationally on vehicles with no emission controls. CARB has worked with stakeholders to develop a proposal that requires cleaner OHRVs to be produced for sale to offset the current emissions from older vehicles. By 2025, the emissions reduction from cleaner new OHRV will offset the increased emissions from the current red sticker program. Beyond 2025, OHRV emissions will continue to decrease as higher emitting older vehicles reach the end of their useful life and are replaced with cleaner new vehicles. The proposal will achieve the maximum emission reductions with minimal impact to the motorcycle industry.

17. Comment: Closing public lands to red sticker motorcycles is going to increase illegal use and not decrease emissions. (PGa)

    Agency Response: CARB staff made no changes based on the received comment. The proposal will end sales of new red sticker motorcycles in 2022, but there are provisions allowing manufacturers to bring many of their most popular four stroke red sticker models into compliance with emissions standards from 2022 onward. CARB staff anticipates that the vast majority of future OHRV sales will be certified models that can be ridden legally on public lands year-round, so there will be no reason for riders to use these vehicles illegally. Starting in 2025 the proposal will lift seasonal riding restrictions for current red sticker motorcycles, which will further reduce any potential incentive to ride illegally in prohibited areas. Overall, more access will be given to the more OHRVs under the proposal than exist under current regulations.

18. Comment: Almost all 2019 motorcycles are red sticker and can only be ridden from October through May. (RH)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff concurs that most of the available 2019 off-highway motorcycles are certified as red sticker rather than green sticker. This is primarily due to manufacturers choosing to market vehicles as emissions non-compliant red sticker models rather than invest in bringing those models into compliance with CARB's stringent evaporative emissions controls. CARB staff recognized that the cost to comply with CARB's current evaporative emissions standards is prohibitive for certain OHRV models, so we have worked with industry to develop a proposal that will transition most current red sticker vehicles to green sticker certified vehicles beginning in model year (MY) 2020. In addition, the proposal will eliminate the red sticker riding restrictions in 2025 and all certified OHRVs and existing red sticker vehicles will be able to ride year round.

19. Comment: We appreciate staff's effort through the public process and interactive nature. (MIC)(POL)(AMA) (CORVA)

Agency Response: CARB staff made no changes based on the received comment. The Red Sticker amendments reflect the collaborative nature of the rule development process. The amendments are designed to minimize the impacts to the OHRV industry while still achieving sizeable emission reductions. CARB staff appreciates the collaboration from industry, state agencies, dealers, riders, and other interested stakeholders.

20. Comment: CARB should extend the youth model provision to 112cc rather than 110cc. (MIC) (KAW)

    Agency Response: CARB staff agrees with this comment and changed the youth model provision from 110cc to 112cc during the 15-day comment period. Most models marketed as "110cc" are youth oriented, which is why staff initially chose that value. During the 45-day comment period it became clear that some youth oriented models marketed as "110cc" actually have engines with 112cc displacement. Extending the youth model provision to 112cc from 110cc is within the intent of the proposed regulation and would increase the youth model category to an additional 3 percent of the OHMC market, which CARB staff does not anticipate to significantly alter the proposal's estimated emission impacts.

21. Comment: CARB should allow manufacturers to include OHRV using the proposed alternative standards in the 2018 phase-in requirements of the original evaporative regulation, which would provide flexibility for manufacturers. (MIC)

    Agency Response: CARB staff made no changes based on the received comment. New evaporative standards, adopted in 2013, are being phased in from 2018 through 2021. Several manufacturers have opted to certify their vehicles as Red Sticker with no emissions controls rather than comply with these evaporative standards. The proposed amendments are intended to allow the OHRV industry to smoothly transition away from the existing red sticker program. Retroactively relaxing 2019 standards does not serve this purpose, and doing so would essentially reward manufacturers that opted not to certify to the new evaporative standard by allowing them to sell more vehicles with no evaporative controls during the phase-in period from 2018 through 2021. This would result in worse air quality, and would place a competitive disadvantage on those manufacturers who acted in good faith on the 2013 evaporative rule by bringing their fleet into compliance from 2018 through 2021.

22. Comment: Section 2419.4(b)(1)(A) of the proposed regulation continues to set a hard requirement for compliance with sections 2418(a) and 2418(c), but it fails to acknowledge any of the alternative standards in 2418(e). We request 2419.4(b)(1)(A) to include certification under the option included in 2418(e). (MIC) (KAW)

    Agency Response: CARB staff agrees with this comment and has amended the proposal during the 15-day changes to address this comment.

23. Comment: CARB should be doing more to promote zero emission vehicles (ZEV). This includes working on charging infrastructures and consumer incentive needs. Currently, electric OHRVs are most likely to be recharged at state OHRV parks by gasoline-powered generators. The use of these generators will create emissions equal to or greater than OHRVs. Installation of charging infrastructure at California OHRV parks will help to promote the use of zero emission OHRVs. Also, incentives for consumers of electric OHRVs are important to the growth of the OHRV market. An incentive program like the Clean Vehicle Rebate Project (CVRP) would be a valuable tool for consumers when deciding to purchase an electric motor vehicle. (MIC) (CCA)

    Agency Response: CARB staff made no changes based on the received comment. CARB acknowledges that the current developments of off-highway zero emission vehicles are not as prevalent as the light duty sector. However, CARB staff is confident that the future will bring improved battery technology, with increased range and lower costs, making off-highway ZEV more competitive with their traditional internal combustion counterparts. Youth models with lower range and power demands are particularly well suited to electrification. CARB staff's proposal increases emissions credits for ZEVs, which should help encourage manufacturers to develop more electric off-highway models. In the meantime, CARB is working to address the need for charging infrastructure at OHRV riding areas. CARB staff has already begun this process by coordinating with State Parks OHV staff to identify which riding areas would benefit most from the installation of OHRV chargers.

24. Comment: The proposed regulation contains items related to MY 2022 certification. Manufacturers request an additional year or additional lead time be considered for certification if the adoption is delayed beyond December 31, 2019. (MIC) (KAW)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff agrees that it will be challenging for manufacturers to comply with the proposal's requirements for model year 2022 OHRV if the rulemaking is not finalized by the end of 2019. CARB staff is expecting the rulemaking process to be completed by the end of 2019, so no changes are needed to address this comment.

25. Comment: Specific to component certification, Section 2418(e) Table 3 footnote (1) refers section 2118(c)(2) and (3). However, section 2418(c)(2) is for small volume manufacturers and it does not clearly state that the U.S. EPA standard is to be followed. Additional section 2418(c)(3) is for spark ignition marine engine (SIME) component certification. The process is more complicated due to the many difference when compared to the U.S. EPA process; more test samples, the requirement for outside testing, and the creation of a longer lead time of an additional 90 days. CARB staff should consider also referring to section 2412(c)(1) that was previously referred to and consistent with U.S. EPA evaporative standards before the current the TP-933 process. Specific to Tier III, manufacturers should be allowed to use the current certification. (KAW)

Agency Response: CARB staff agrees with this comment and has amended the proposal to address these concerns during the 15-day comment period.

26. Comment: The process to develop and redesign in order to comply with new regulations takes three years. Under the proposed amendments, the 2022 MY ATV standard falls well inside this development window. The 2022 MY certification process starts at the beginning of the 2021 calendar year (CY), if the adoption of this regulation take please at the end of this year or beginning of the 2020 CY, manufacturers will have one year to prepare and complete 2022 MY development. If the ATV alternative phase in plan were to accept Tier 3 until 2026 MY, as is the case for off-road motorcycles (OFMC), manufactures would have sufficient lead-time to make appropriate development plans for minimizing the impact to consumers and dealers. (KAW)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff disagrees with this comment. All ATVs were emissions compliant green sticker models prior to 2018 when new evaporative standards that were adopted in 2013 went into effect. At that time, some manufacturers decided to certify their formerly green sticker ATV as red sticker rather than comply with the new standards. Manufacturers had ample time, from 2013 through 2018, to bring their vehicles into compliance with the new evaporative standards. Instead, they opted to certify them as red sticker with no evaporative controls. Because of this, it is not appropriate to reward those manufacturers with more time to comply. Moreover, it would be unfair to those manufacturers that acted in good faith and have several models certified to meet the 2018 evaporative standard.

27. Comment: Under the current OHRV regulations, some OHRVs transitioned from compliant Green Sticker models certified based on testing with E0 (indolene) certification fuel to non-compliant Red Sticker models. Manufacturers may consider once again certifying these as compliant Green Sticker models using the alternative phase in procedure currently proposed in the draft amendments. The draft amendments also include requirements for the use of E10 test fuel starting from the 2020 MY. This requirement creates a barrier for manufacturers to recertify some OHRVs back to compliant Green Sticker models. We ask CARB to consider an exemption to the E10 test fuel requirements if an OHRV model was previously certified using E0 (indolene) certification fuel and add language to the proposed amendment confirming the exemption. (KAW)

    Agency Response: CARB staff agrees that there is not adequate time to retest tank and hose permeation using E10 fuel for the 2020 model year. During the 15-day comment period, CARB amended the proposal to clarify that certification can be based on U.S. EPA test data which was conducted using E0 fuel. This will allow manufacturers to certify their vehicles in 2020 without conducting additional testing using E10 fuel.

28. Comment: CARB staff should add a 2.0 pounds per square inch (psi) pressure relief valve as alternative vapor control method in addition to the 1.0 grams per liter (g/L) canister. The availability of such an option in the regulation would provide manufacturers with an alternative way to provide compliant OHRVs to California consumers and dealers. (KAW)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff agrees that a pressure relief valve can provide evaporative emissions control that is equivalent to carbon canisters. However, more research would need to be done in order to establish appropriate valve cracking pressure and develop suitable durability and testing procedures for pressure relief valves. This is not feasible within the timeframe for this proposed regulation. Manufacturers can use pressure relief valves, but those vehicles will need to be certified in accordance with one of the allowable full system tests (TP-933 or the on-road motorcycle test) rather than via a component based certification.

29. Comment: The existing small volume manufacturer's hose standard is too strict. The 5.0 g/m^2/day standard cannot be achieved utilizing rubber hose, even if equipped with a barrier layer, which most small volume manufacturers are likely to use. We would request that staff allow manufacturers to follow Tier II in Table 3 in section 2418(e) by adding this option during the revision process. (KAW)

    Agency Response: CARB staff agrees that the 5.0 g/m^2/day standard is too stringent based on the hoses that are currently CARB certified. At the time of this rulemaking, only rigid hoses have been certified to this standard. Rigid hoses are not well suited to OHRV applications, and may significantly increase costs. CARB staff modified the regulatory text in the 15-day comment period to harmonize with U.S. EPA permeation standards through 2026, then align with the existing small off-road engine (SORE) hose standard of $15g/m^2$/day at 40C. CARB has already issued more than 100 Executive Orders certifying hoses meeting this standard, so OHRV manufacturers have a wide range of compliant hoses to choose from.

30. Comment: CARB's current proposal to reduce the exhaust emission limits for all-terrain vehicles, off-road sport vehicles, and off-road utility vehicles as part of the red sticker rulemaking, without concomitantly addressing the potential need for other longer term OHRV regulation changes identified below, is in our view a missed opportunity. CARB staff had previously communicated its finding through the workshop process that further exhaust emission reductions from OHRV's were not warranted by the emissions inventory considerations. We understood the Staff's explanation that the urgency of the red sticker issues precluded taking on added complexity at the time.

    We therefore ask that CARB make the justification for the proposed exhaust emission limit changes clearer in this red sticker rulemaking record so the rationale for the specific limit reductions can be better understood. We do not see the data in "Red Sticker Appendix C: Update to Inventory of Off-Highway Motorcycles &

RV2018 Model" explaining the extent to which CARB staff relied on the proposed ORSV and ORUV exhaust emission reductions. Also, the "Appendix B: Red Sticker Economic Assessment Methodology" does not lay out the technology and cost assessments associated with the proposed exhaust emission limit reductions.

At a minimum, CARB should recognize that the proposed exhaust emission limit reductions significantly consume the compliance margins and exhaust emission fleet averaging capacities reserved by the affected manufacturers. This reflects a hidden cost. Polaris has not had time to make a full evaluation, but there may also be cases where additional technology development will be required to meet the lower exhaust emission limits with sufficient margin. For example - certain vehicles that until now have been able to comply with open loop emission controls, may in the future require closed loop controls. (POL)

Agency Response: CARB staff made no changes based on the received comment. The idea of lowering exhaust limits for ATV, utility vehicles, and side-by-side vehicles was suggested by the Motorcycle Industry Council (MIC) as a way to achieve needed reductions from OHRV while providing flexibility for motorcycles. MIC stated that many of their member manufacturers would find it easier and more cost effective to implement more stringent on four-wheeled OHRV than on motorcycles due to packaging and weight. The proposed exhaust limits were set based on a review of current certification data. CARB staff determined that the proposed limits would be met by the current OHRV fleet (MY2018) with no additional controls required. CARB staff confirmed these results with the major manufacturers. Accordingly, the economic analysis assumes no costs to meet this requirement. Refer to Appendix B of the staff report for staff's full economic analysis.

31. Comment: The commenter is concerned that the proposed approach, i.e. capitalizing on exhaust emission limit changes from full-size ATV, ORSV and ORUV vehicles not covered by the new Alternative Standards, may inequitably reduce CARB's incentive to address these longer-term OHRV regulation issues going forward. Comments suggest the idea of revisiting this proposal as new and better data becomes available to make sure that we're able to adjust as necessary. (POL) (AMA3)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff remains committed to ensuring that the OHRV program continues to achieve its goals of reducing harmful emission in California with minimal impact to manufacturers, dealers, and riders. CARB staff will continue to evaluate program effectiveness and move to amend the program as necessary in the future to achieve these goals.

32. Comment: Polaris has additional comments on sections of the OHRV regulations that would effectively be affirmed without change by the Red Sticker proposal. Specifically, Polaris has requested three additional changes to OHRV regulations, unrelated to the end of the Red Sticker program: (1) allow wider track width on

ATV's; (2) allow OHRV with engines over 1000cc to certify to a chassis-based standard rather than the LSI standard; and (3) Clean-up of TP-933. (POL)

Agency Response: CARB staff made no changes based on the received comment. First, allowing wider ATVs would impact trail design and management, and is currently opposed by State Parks Off-Highway Vehicle (OHV) Division staff. Parks OHV staff has committed to evaluate wider ATVs to determine whether they can be accommodated on their current ATV trail network. Second, OHRVs with engines above 1000cc are certified as Large Spark Ignition (LSI) engines, which are subject to different standards and test procedure than OHRV. Changing to a chassis-based certification for these vehicles would be a relaxation of current LSI standards, and would need to be addressed by amending the LSI regulations. Third, TP-933 comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond.

33. Comment: Stakeholders understand and appreciate CARB's concern that the majority of non-street legal air emission non-compliant "Red Sticker" off-highway motorcycle (OHMC) sold in California are being purchased and used by a significant number of customers for non-competition general recreation such as casual trail riding on public lands. (AMA)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff appreciates the collaborative effort from stakeholders and for providing critical information about the category through the public process.

34. Comment: DMV records show there are approximately 200,000 Red Sticker OHVs registered in California with approximately, 12,000 units sold each year. Those 200,000 Red Sticker generate in excess of $5 million annually for State Parks, California Highway Patrol (CHP), DMV, and direct payments to counties impacted by OHV recreation including competition. Competition motorcycles must continue the fiscal support to these agencies and the in-lieu payments to counties for OHV related land management, law enforcement, OHV registration, conservation, restoration, and youth safety programs. (AMA) (AM)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff evaluated the potential impacts to state agencies in the Initial Statement of Reasons from the proposed amendments. Registration fees for California's nearly 1,000,000 OHRV, including approximately 200,000 red sticker vehicles, will not be impacted by the proposal. CARB staff acknowledges that State Parks and additional entities may experience minor fiscal impacts by the end of red sticker certification if riders opt to purchase uncertified competition-only models rather than certified models. The proposal allows time and flexibility for manufacturers to transition emission controls to current red sticker models without adversely impacting the industry. As a result, CARB staff expects most riders to purchase emissions-compliant models from 2022 onward. Also, with the end of red sticker riding

restrictions in 2025, more vehicles will be allowed to be ridden year round which may increase revenue at OHRV riding areas that collect admission or use fees.

35. Comment: The 2017 Off-Highway Motor Vehicle Recreation (OHMVR) Commission Program Report states that OHV recreation has a $20 billion dollar economic benefit to the State with a portion of those benefits being realized in rural communities. An important contributor to that figure is sanctioned competition off-road motorcycle events including practice riding to physically train and tune for a race. Often rural areas depend on economic benefit derived from both competition and spectators that attend competition events on both public and private lands. Stakeholders are concerned the Report grossly underestimates fiscal impacts to dealerships, customers, and affected agencies since the Proposed Action Alternative does not include replacing the Red Sticker Program with a Competition Sticker or Decal Program that retains the 17-Digit VIN (vehicle identification number). (AMA)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. However, CARB understands that competition is an important aspect of the OHRV industry and steps must be taken to preserve the industry. The proposal does this by creating a pathway for manufacturers to cost-effectively develop both emissions compliant and competition exempt OHRVs.

36. Comment: The short time frame to implement the CARB proposal by DMV and State Parks demands that state legislation be passed in 2019 and take effect January 1, 2020. Only then will affected agencies have time to effectively plan and implement the CARB regulation. All laws and procedures must be in place before the 2022 model year competition motorcycles arrive at the marketplace in the summer of 2021. (AMA)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff agrees that any legislation that is necessary to implement competition identification be processed as soon as possible to ensure that the competition category is not disrupted or negatively affected. Although legislation for competition identification is not within the scope this proposal, staff is working with all the impacted stakeholders and providing support where possible.

37. Comment: Stakeholders believe the CARB proposal will have the practical effect of delegitimizing competition motorcycle events and related practice riding on public lands and driving said activity underground back to where it was in the late 1960s. (AMA)

    Agency Response: CARB staff made no changes based on the received comment. The proposal does not change the statute for competition vehicles, as they are statutorily exempt from CARB's emissions requirements. Competition is not within

the scope of the proposal. The proposed amendments do not set any standards or requirements for competition vehicles but may have an indirect impact on the competition industry as it has been intermixed with red sticker certified vehicles in California for more than 20 years. To address this impact, CARB has developed a proposal that allows manufacturers simple, low cost pathways to bring their current red sticker models into emissions compliance. In addition, CARB staff is working with the necessary stakeholders to develop strategies for managing competition OHRV, including racing events and practice on public lands.

38. Comment: AMA proposes setting a $108 biennial DMV fee for competition vehicles. This fee will be determined from documented use of competition vehicles on public lands after the CARB regulation is implemented in 2022 model year. (AMA)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. CARB staff remains committed to working with stakeholders to develop strategies for managing competition OHRV and providing adequate access to competition events and associated practice.

39. Comment: AMA proposes requiring the possession of a valid membership card from a recognized motorcycle racing sanctioning body that holds competition events. (AMA)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. CARB staff remains committed to working with stakeholders to develop strategies for managing competition OHRV and providing adequate access to competition events and associated practice.

40. Comment: We support CARB's proposal to sunset the current Red Sticker program since it has long served as a loophole to allow off-highway motorcycles (OHMC) with uncontrolled emissions to be manufactured and sold for operation in California. We believe that sunsetting the Red Sticker program and aligning with federal standards for OHMCs is a balanced approach for achieving further reductions of reactive organic gases and exhaust emissions from recreational vehicles. While we understand the economic challenges of this recreational vehicle sector, MECA believes that further reductions of HC + NOx are achievable through implementation of readily available catalyst and evaporative control technologies. We agree with staff's decision to propose setting California-specific standards that are more stringent than federal standards for model year 2028 and later OHRVs. The technologies to meet these exhaust and evaporative emission standards are available and already in use on passenger cars, on-road motorcycles and other

spark-ignited (SI) engines, in many cases for decades, to help meet California's air quality objectives. (MECA) (MECA2)

Agency Response: CARB staff made no changes based on the received comment. CARB staff agrees and appreciates the support on the rulemaking that has been the product of stakeholders work and participation in minimizing impact to industry while achieving the most cost effective emission reductions.

41. Comment: One of the cost savings noted by CARB staff is from permitting OHRVs to be certified under the design-based process because they are not subject to a full vehicle evaporative emissions standard, which reduces development and certification costs. However, experience from CARB's own testing on small off-road engines (SORE) has demonstrated high evaporative emissions from equipment certified in this manner compared to total system performance certification using a standard Sealed Housing for Evaporative Determination (SHED) apparatus. This has resulted in changes to the CARB certification requirements for SORE. For this reason, we continue to support use of a SHED to conduct evaporative emission control system certification over component design certification. We urge CARB staff to develop a robust in-use testing plan to confirm that the OHRVs with individual components certified to performance standards are achieving the necessary in-use evaporative emission levels on a whole vehicle basis. (MECA) (MECA2)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff agrees and plans to conduct testing of design-based evaporative systems once they become available on the market. If CARB staff finds that these vehicles are not delivering the expected emissions benefits, we will consider regulatory amendments to address the problem.

42. Comment: MECA and our members continue to urge CARB staff to explore the use of catalyst exhaust control technologies for further reducing ozone forming emissions such as hydrocarbons and NOx from off-highway recreational vehicles. Fuel injection and advanced evaporative controls are being developed for other global markets, and closed-loop exhaust controls for on-road motorcycles can deliver as much as an 80 percent reduction from – of hydrocarbon and NOx**.** (MECA) (MECA2)

    Agency Response: CARB staff made no changes based on the received comment. CARB will continue to evaluate the technical feasibility and cost effectiveness of additional controls such as catalysts in the coming years. The proposal includes fleet emissions averaging provisions that will incentivize manufacturers to apply more advanced emission controls to the OHRV models where they are best suited.

43. Comment: Electronic control units (ECU) and on-board diagnostic (OBD) systems may be employed to meet exhaust standards. The use of an ECU system is considered an equally important component for a vehicle in the OHRV category.

Some level of system diagnosis may be required to fix an emission issue and return the OHRV back to certification emission levels. (BOS)

1. What is the strategy for in-vehicle OBD test and certification?
2. What is the strategy for in-vehicle diagnostic functionality?
3. For use by external test equipment, will a standardized data link connector (DLC) be included?
4. For use by external test equipment, will a standardized serial communication link (e.g. CAN bus) be included?
5. For use by external test equipment, will standardized diagnostic trouble code (DTC) definitions (reported by the in-vehicle ECU, DTCs provide insight to a system failure) be included?
6. For use by external test equipment, will standardized diagnostic data parameters (that describe machine informative details (e.g. VIN) or operation (e.g. engine speed) be included?
7. For use by external test equipment, will standardized output control functions (that enable technician diagnosis of key output actuators such as evaporative vent solenoid, fuel injector) be included?
8. What is the fiscal impact to industry for adding ECU control system hardware and software to its product line?

Agency Response: Certification procedures focus on measuring vehicle emissions, and do not independently evaluate the ECU or other control components that are working to control emissions. The proposed amendments were designed to provide the most cost effective measures to reduce emissions with minimal impact to industry. The additional cost to employ an ECU or OBD system on an OHRV would be cost prohibitive and is not within the scope of this proposal. The proposal gives manufacturers the option to employ more sophisticated engine management and emissions control strategies, although use of specific technologies is not required.

44. Comment: On page IV of the Executive Summary, CARB provides a table showing that the proposed rule change would reduce statewide summer OHMC ozone (which is the combination of ROG and NOx) by 3.11 tons per day (tpd) in 2031 and 6.35 tpd in 2042. These numbers, however, are meaningless unless they are placed in context. For instance, the Initial Statement of Reasons should have provided the total statewide summer ozone figures, not just those for the OHMC sector. The fact is, total statewide ozone during the summer is probably close to 10,000 tons per day, which means that the anticipated reductions are mere fractions of 1 percent and thus meaningless in terms of addressing the state's ozone problem. At the very least, CARB should provide this information so that the public can determine whether the time and expense of this particular regulatory effort is worth the public resources that CARB has devoted to it and plans to devote to it in the future. (GDB) (MS)

Agency Response: CARB staff made no changes based on the received comment. CARB's strategy for attaining ambient ozone standards is to reduce ROG and NOx emissions from all sources, including on-road and off-road mobile sources. Over the past decades we have adopted progressively more stringent standards for the larger mobile sources (light duty vehicles, heavy-duty diesel), which has made emissions from the smaller sources relatively more significant. CARB provides estimates for total statewide emission of ozone forming pollutants (ROG and NOx) on the website at https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php. These estimates are updated periodically as new data becomes available.

45. Comment: According to the Initial Statement of Reasons, the proposed rule changes will increase the price of each OHRV by $333. It is unclear how CARB came up with this figure, which is the first problem. The second problem is that CARB believes this increase in price will not have a significant impact on total statewide sales of new OHRVs. (See ISOR, p. iv.) Again, however, there is no data to support this conclusion. To the contrary, it appears from Figure V-2 that statewide sales of new OHRVs steadily declined between 2003 and 2012 and have largely been flat since. Every indication is that this market is already fragile and that tacking on an additional $333 to the sticker price will cause another downturn in sales. We suspect this is exactly what CARB is hoping will happen. (GDB)

    Agency Response: CARB staff made no changes based on the received comment. As described in Appendix B of the staff report, staff conducted a survey of OHMC manufacturers to determine their expected cost of bringing a current 4-stroke red sticker model into compliance with the proposed exhaust and evaporative standards. The survey includes one-time development and certification costs as well as per unit component costs, and staff used the highest values provided by manufacturers to ensure we were not understating costs. This total cost was spread equally over the average number of units sold for each certified engine/evaporative family. CARB staff then applied a manufacturer and dealer markup to determine the total expected retail cost increase per vehicle. The cost represents about 4 percent of the sale price of an average OHMC, which should have minimal impact on consumer demand and sales. The estimated increase in retail cost of $333 per OHRV applies only to current red sticker models that will be redesigned to include newly required emissions controls. There will be no cost increase for current emission compliant models, or for red sticker models that will be marketed in the future as competition exempt.

46. Comment: Figure I-9 (page 9) shows Summertime OHRV Evaporative and Exhaust Emissions from 1995 to 2040. This figure is interesting because it shows that the current Red Sticker program has been effective in reducing OHRV-related emissions of reactive organic gas (ROG) and oxides of nitrogen (NOx). Since 2007, these emissions have steadily decreased and continue to do so. According to the figure, only in year 2032 is the downward trend expected to flatline. And even that expectation is based on staff's conjecture, not hard data. One can just as easily imagine a scenario where the overall OHRV emission during the summer months continue to go down, especially as OHRV technology and fuels improve their

emissions profiles. So it is simply not true that the current program is a failure. It continues to meet its basic objective, which is to reduce ROG and NOx emissions from OHRVs. CARB may argue that the downturn in emissions is related to corresponding downturns in new OHMC sales, but that is precisely what the last round of rule changes was expected to accomplish. (GDB)

Agency Response: CARB staff made no changes based on the received comment. The decline in emissions from 2007-2015 can be attributed primarily to three factors: (1) large drop in sales during the economic recession that began in 2008, (2) transition from high-emitting 2-stroke engines to cleaner 4-stroke engines, and (3) uncontrolled vehicles sold prior to the first emissions standards in 1998 reaching the end of their useful life. None of these factors are associated with or dependent upon the Red Sticker program, which disincentives development of cleaner technologies by allowing for certification of models with no emissions controls. With respect to future OHRV sales, CARB staff acknowledges that there is some uncertainty associated with all future predictions. CARB staff relies on the best available forecasting tools to help minimize this uncertainty. In developing the revised OHRV emissions inventory model (RV2018), CARB staff used the University of California Los Angeles economic forecast and data on new home construction activity (housing starts) as metrics for predicting future OHRV sales because these indices have historically correlated well with OHRV sales.

47. Comment: We also question CARB's claim that OHRV owners use their red sticker vehicles approximately 5.5 days per month during the summer. But even if this number were accurate, it is not the proper metric for determining air emissions. That's because emissions are a function of miles traveled or hours in use. The fact that the average OHRV owner uses his or her red sticker vehicle 3.9 days per month in the summertime is immaterial and unhelpful unless one knows how many hours per day that vehicle is operating. It would appear, then, that CARB is using the daily use - as opposed to hourly use - metric to overstate emissions from OHRVs. (GDB)

    Agency Response: CARB staff made no changes based on the received comment. The RV2018 emissions model estimates usage based on results of our OHMC rider survey, which included responses from approximately 3000 riders. This survey was conducted by University of California (UC) Davis, and questions were developed cooperatively with stakeholders. As suggested by the commenter, CARB staff calculated average annual miles travelled based on survey responses for riding days per year, hours ridden per day, and miles ridden per hour. Results of the initial survey indicated higher riding days per year than expected, so CARB staff conducted a supplemental survey to validate results. Usage was adjusted downward based on results of the supplemental survey, and the final annual mileage values used in the RV2018 model are generally in line with previous U.S. EPA and MIC estimates.

48. Comment: Based on these findings, it appears that CARB’s Initial Statement of Reason has provided inadequate evidence to support the proposed rule

changes/amendments. This does not mean, however, that the current Red Sticker program cannot be improved to better accomplish its intended purpose. For example, CARB's survey of OHMC users indicates that most people ride their Red Sticker vehicles for general recreational purposes rather than for competitive racing. To address that concern and return the Red Sticker exemption to its originally-intended application, we suggest the following:

- Provide I.D. cards to participants in formally sanctioned race events and require that persons riding a Red Sticker vehicles maintain this card in their possession at all times.
- Require that all persons riding a Red Sticker vehicle provide proof that they have registered for a permitted race/competitive event on public land.
- Require that event sponsors issue practice permits for each permitted event, and require all participants to maintain such practice permit in their possession when riding their Red Sticker vehicles any time other than during the actual race event.
- Require that all practice occur in areas on or near the event location and within a predetermined timeframe prior to the permitted event. (GDB)

Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. CARB adopted the Red Sticker program as a temporary measure to allow manufacturers time to develop a range of compliant models, not as a mechanism to manage competition-exempt vehicles. CARB staff remains committed to working with stakeholders to develop strategies for managing competition OHRV and providing adequate access to competition events and associated practice.

49. Comment: We also suggest that CARB work closely with the OHMV manufacturers to (i) gradually reduce the number of red sticker vehicles that are introduced to the market each year, and (ii) phase out the practice of converting Green Sticker vehicles to Red Sticker vehicles to avoid the tighter emissions standards of the former. These changes, along with those described in the previous paragraph, would address the two most serious problems with the Red Sticker program. Moreover, they would be properly calibrated to the real issues that need attention, and would not be seen as an overreach by CARB. (GDB) (AM)

Agency Response: CARB staff made no changes based on the received comment. CARB agrees and will continue to work closely with the manufacturers to ensure that the conversion from red sticker to green sticker has a minimal impact on the OHRV industry. CARB staff has developed a proposal that gradually converts red sticker to green sticker by harmonizing with U.S. EPA emissions standards for five years and then introducing more stringent standards beginning in model year 2027.

50. Comment: Ultimately, we would ask that CARB take into consideration a fee structure that is affordable to the average middle income family. We would also like to see manufacturers have input into how best meet a pollution standard that would be both economically and environmentally responsible. (GDB)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. CARB staff worked closely with OHRV manufacturers throughout the rule development process to craft a proposal that provides significant air quality benefits with minimal costs to manufacturers.

51. Comment: The commenter supports grassroots racing activities at reasonable fees that allows families to enjoy the sport on both public and private lands. As we understand it, the overarching purpose of the amendments is to quickly phase out the existing "Red Sticker" program, which, according to the Initial Statement of Reasons, has failed to meet its objectives and is now impeding the state's efforts to satisfy its objectives under the Clean Air Act. In our review, however, we were surprised and disappointed by the way CARB staff has misrepresented or manipulated air emissions data in an attempt to support its case that the current Red Sticker program has failed and must be eliminated. (GDB)

    Agency Response: CARB staff made no changes based on the received comment. CARB disagrees with the assertion of misrepresentation and manipulation of emissions data. To support the proposed rule, CARB staff has updated the previous emissions inventory model, RV2013, to reflect the most current data available for OHMCs in each region of the state. The newly revised model, RV2018, contains updates to base year population, activity (miles/year), activity growth, spatial allocation, and emission factors. Adjustments reflect the recovering California economy and incorporate results from recent CARB in-house testing and survey data from UC Davis. The survey conducted by UC Davis was the most extensive ever conducted with over 3,000 riders in California. In addition to in-house testing, CARB also used available test data from other sources such as the Automotive Testing Laboratory (ATL) and U.S. EPA to develop emission factors for the updated model. CARB staff conducted in-house testing of 24 red and green sticker bikes with various technology combinations of 2- and 4-stroke, and carbureted and fuel injection. For testing, CARB staff presented the test plan at workshops and requested that manufacturers participate in the internal testing and provide feedback. CARB staff tested three of the six two-stroke models that were part of our test plan. This was because emissions from those models were so high that they contaminated our test equipment. While the Urban Dynamometer Driving Schedule (UDDS) cycle was not designed to reflect off-road motorcycle riding patterns, our two stroke emissions factors are based on the most conservative data from U.S. EPA and ATL test programs so we are confident that we are not overstating emissions from two-stroke models.

52. Comment: The elimination of the “two sticker” system, as proposed, would help to significantly reduce confusion for riders, Department of Motor Vehicles staff and law enforcement personnel. While we do support the proposal to end the red sticker program, CARB must not forget that the sale, operation, and resale of existing competition motorcycles will rightfully continue. (AMA2)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff appreciates the support and is committed to working with stakeholders to develop a strategy for managing competition vehicles once the Red Sticker program ends.

53. Comment: Likewise, we appreciate the staff outreach to riders throughout this long and difficult process, as well as their openness to adopting fleet averaging and other strategies to help reduce overall emissions while preserving traditional models for competition purposes. We encourage staff to continue to seek ways to create incentives for manufacturers to pursue the development and us of new technologies, rather than simply identify and require specific equipment or techniques to meet the proposed standards. (AMA2)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff appreciates the collaboration throughout the rule development process by land managers, riders, and manufacturers. The resulting proposal sets reasonable emissions limits for OHRV while not prescribing the use of any specific control technology.

54. Comment: We do remain concerned about the sample size of the two-stroke fleet (three motorcycles) and question the use of an automobile-based testing drive cycle to determine emissions level. By CARB’s own admission, the Urban Dynamometer Driving Schedule was developed to represent urban passenger-car driving and may not accurately represent how these vehicles are operated on public lands in California. While we acknowledge that limited data is available on real world riding patterns, the use of this testing procedure and very limited testing sample size remains troubling. (AMA2)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff tested only three of the six two-stroke models that were part of our test plan because exhaust emissions from those models were so high that they contaminated our laboratory test equipment. Also, the UDDS cycle was not designed to reflect off-road motorcycle riding patterns. However, the UDDS cycle is used by CARB and U.S. EPA for OHRV certification, and serves as the regulatory standard for measuring OHRV emissions. Because our test program generated limited exhaust emissions data for two-stroke vehicles, the RV2018 emissions model uses two-stroke emissions factors based on the most conservative data from U.S. EPA and ATL test programs. By using these conservative emission factors, CARB staff

are confident that the RV2018 model does not overstate emissions from two-stroke models.

55. Comment: Another important point is the proposed youth engine-size maximum is too low for some currently popular youth models and should be raised to 115cc to avoid the additional costs the proposal would create (staff estimated $333 per bike). It is critical that young riders have access to appropriately size machines, and the additional costs identified could result in riders purchasing larger bikes, if these youth models become too costly. (AMA2)

    Agency Response: CARB staff agrees with this comment and amended the proposal during the 15-day comment period to raise the youth maximum displacement to 112cc. CARB staff reviewed OHRV certification data and found that youth oriented models no models sold in California have a maximum displacement of greater than 112cc, so 112cc was selected as the youth maximum displacement rather than 115cc as suggested by the commenter. The change will allow all the top manufacturers' youth models marketed as 110cc and below to qualify for the youth provision.

56. Comment: The competition-vehicle category also must include a system of titling and identification to help combat theft and identify competition vs. noncompetition models. Require persons using a designated competition/red sticker vehicles to maintain a membership in a competition sanctioning body and carry their membership card with them at all times while practicing. Require that event sponsors issue practice permits for each person registered for a competition event and/or series. If registered for a series, only on permit need be issued for the season. This practice permit should be in the rider's possession when riding competition vehicles any time other than during the actual race event. (AMA2)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond. CARB staff remains committed to working with stakeholders to develop strategies for managing competition OHRV and providing adequate access to competition events and associated practice.

57. Comment: Maintain the current OHV registration fee structure (already among the highest in the nation) to keep this important recreational activity as affordable as possible. (AMA2)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond.

58. Comment: California continues to be the epicenter of the nation and, possibly, the world, for off-highway motorcycle riding. This long-established convention is due in large part to the amazing opportunities provided by the California State Parks OHV program and the opportunities it affords in the popular State Vehicular Recreation Areas and also through the valuable and enduring partnerships with other important land agencies, including the U.S. Bureau of Land Management, the U.S. Forest Service and city and county partners statewide. The benefits resulting from these recreational opportunities, especially in rural parts of the state, often provide critical economic stimulus. Any potential negative impacts should carefully considered before changes are implemented. (AMA2)

    Agency Response: CARB staff made no changes based on the received comment. The proposal includes several provision to help manufacturers bring a wide range of certified models to the market, including alternative certification pathways and enhanced fleet averaging. Most importantly, the proposal harmonizes with U.S. EPA standards through 2026, meaning California's dealers will have the same range of certificated and competition-exempt models available as dealers in the other 49 states. This ensures that California's OHRV users will have a wide range of emissions-compliant and competition-exempt vehicles to choose from in the future.

59. Comment: Ending the Red Sticker program will present significant economic hardship for dealers. CARB should allow Red Sticker sales to continue through at least 2023 so dealers have time to adjust. (CMDA)

    Agency Response: CARB staff made no changes based on the received comment. CARB disagrees with the assertion that ending the sale of new Red Sticker vehicles in 2022 will adversely impact dealers. The proposal includes several provisions to help manufacturers bring a wide range of certified models to the market, including alternative certification pathways and enhanced fleet averaging. Most importantly, the proposal harmonizes with U.S. EPA standards through 2026, meaning California's dealers will have the same range of certified and competition-exempt models available as dealers in the other 49 states. Beyond 2026, the proposal requires manufacturers to meet progressively more stringent emissions standards that are proven to be technically feasible and cost effective. Based on CARB staff's extensive conversations with OHRV manufacturers, we do not expect the proposal to disrupt model availability or adversely impact future OHRV sales.

60. Comment: CMDA opposes eliminating two-stroke Red Sticker models. (CMDA)

    Agency Response: CARB staff made no changes based on the received comment. The proposal does not explicitly eliminate two-stroke models. Manufacturers have developed cleaner two-stroke models for other markets, and those models could be certified in California under the proposal. However, the proposal achieves reductions by eliminating recreational use of the highest emitting models: traditional two-stroke engines with no exhaust or evaporative controls. Given the availability of cleaner

technologies (both 2 and 4 stroke) there is no reason to continue selling the current generation of high emitting two-stroke models for general recreation. The traditional uncontrolled two-stroke models will continue to be available for competition use only.

61. Comment: CMDA supports harmonizing with the U.S. EPA standards and lifting riding restrictions for existing Red Sticker vehicles in 2025. (CMDA)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff appreciates support for these elements of the proposal.

62. Comment: It's really difficult to acquire smog parts for California specific cars that are like 30 years old. It's a nightmare. It can't be done. They don't exist at junk yards. I almost guarantee you that these parts are going to be tied into the computer system on the bikes, and they won't run right without the parts. (SB)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff anticipates that exhaust controls on models sold in California will be identical or substantially the same as those sold in the other 49-states. CARB regulations already require California specific evaporative controls for OHRVs. These components (fuel tank, fuel hose, carbon canister) are generally durable and would be expected to last through the useful life of the vehicle.

63. Comment: California had some of the most difficult air pollution problems in the United States, and that we must do everything possible to clean up the air. And we must do more, and we must do it more quickly. We with also encourage you to move forward with the stronger standards and appreciate the focus on the zero-emission crediting, and also the focus on making sure there's adequate charging infrastructure at the locations for these vehicles to be used. Finally, we do encourage strong and diligent enforcement going forward to make sure that the program is successful, and in meeting all the needs we have for clean air in California.

    Benzene emissions are toxic air contaminants that we've very much need to reduce. This program created a loophole for dirty 2-stroke engines. And that loophole has grown, so that in the off-road motorcycles, they're actually a majority of the vehicles. So we think it's long past time to close this loophole. So going forward, I think there is still more work to be done to limit emissions from off-road vehicles. The competition exemption needs to be very carefully managed, so it doesn't become an even bigger loophole than it is now. There needs to be effective enforcement, particularly against the kind of tampering that we heard about. And thirdly, we really need to have a transition to fully zero-emission vehicles. (ALA)(CCA)

    Agency Response: CARB staff made no changes based on the received comment. We appreciate the support and we will continue to look for cost-effective emission reducing strategies for OHRV.

CARB received the following comments during the 15-day comment period.

64. Comment: The proposed change to Sec. 86.410-90 (e)(1) says red sticker bikes can only be ridden seasonally until 2025. The language needs to be clear that after 2025 they can be ridden year round. Otherwise, someone could interpret the language to say they cannot be ridden after 2025. (OB)

    Agency Response: Section 2415(c) explicitly removes any applicability to seasonal riding restrictions effective on January 1, 2025 for all OHRV, including those certified as Red Sticker. In 2025 and beyond, these vehicles will still be eligible for OHRV registration and access to public riding areas.

65. Comment: Please give additional consideration to providing ATVs with sufficient lead time to comply with Tier I. Starting with the 2022 MY is impossible for the manufacturers who focused mainly on side-by-side vehicle TP933 compliance. The same phase–in timing as off-road motorcycle would be helpful in planning development of ATVs that can meet new standard. We again state generally, that at least three years is needed for the development of new emission control components to ensure emission level compliance and account for chassis modifications. Even the addition of a small bracket, requires full endurance testing. This three year lead time would be counted after the final rule adoption, as manufacturer cannot take action before final rule is adopted. (KAW)

    Agency Response: CARB staff made no changes based on the received comment. CARB staff disagrees with this comment. All ATVs were Green Sticker prior to 2018 when new evaporative standards went into effect. At that time, some manufacturers decided to certify their ATV as red sticker rather than comply with the new standards. Rewarding those manufacturers with more time to comply would harm California's air quality by allowing the sale of additional higher-emitting ATVs from 2018-2021. It would also be unfair to those manufacturers that acted in good faith and have several models certified to meet the 2018 evaporative standard.

66. Comment: The revised draft appears to still require Executive Orders for evaporative control components (fuel tanks, fuel hoses, and carbon canisters). Allowing the use of U.S. EPA applications looks fine but does not serve to shorten certification lead-time, as it cannot guarantee 90-day vehicle approval after submission of the application. We believe creating a new paragraph would be beneficial in providing a clearer understanding that both vehicle certification and component certification is allowable. Otherwise, it could take manufacturers almost half a year for certification. (90 days for components and 90 days for vehicles.) We strongly recommend that CARB staff consider a clearer explanation of the regulation for component certification data review during vehicle certification, which would preserve the usual 90 day certification lead time. (KAW)

    Agency Response: CARB staff made no changes based on the received comment. Component Executive Orders allow CARB the ability to enforce compliance in

California, thereby ensuring that evaporative control components meet applicable performance standards. Enforcement is important in realizing the benefits of the proposed emission standards. Also, the current certification process allows for concurrent certification of the component and the complete vehicle. The current certification process allows for the manufacturer to submit the application package for component and system certification simultaneously. The system certification engineer would review the application and wait until components have been certified and expedite the certification. There is no need to apply for component certification (a process of up to 90 days) and then apply for vehicle certification (up to an additional 90 days).

67. Comment: S2418(c)(3) refers only to S2419.4.(b)(3) that requires labeling on the component. Component labeling requirements usually extend parts manufacturing lead times by an additional three months and increase the parts cost due to required tooling changes. These issues could create a heavy burden for the manufacturers.

    Agency Response: CARB staff made no changes based on the received comment. CARB is not requiring manufacturers to change or retool the label that is currently on their component. The labelling requirement of section 2418(c)(3) and Section 2419.4(b)(3) requires that the manufacturer label their component with the Component Executive Order number or an identifying character. The identifying character can be a symbol, image, letters, model number, manufacturing part number, etc. Manufacturers can use the same labelling in the phase-in process for harmonization and have sufficient lead-time to modify the labels if desired in future years.

68. Comment: Alternative phase-in vehicles should be exempt from warranty requirements S2419.1 and S2419.2, because most of the models would be identical to current U.S. EPA certified vehicles or CARB certified before 2018 MY, which would not be redesigned in order to minimize the financial impact to both the market and manufacturer. These models would be covered by U.S. EPA's emission warranty requirement (30 month/5,000 km). We believe this is a sufficient requirement for the phase-in term. (KAW)

    Agency Response: CARB staff made no changes based on the received comment. Manufacturers have been required to meet the current warranty requirements for evaporative emissions since MY2018. It is the intent of the rulemaking to not backslide on the current warranty requirements that have been in place since the 2013 rulemaking. Evaporative components that would need to be covered by warranty include the fuel tank, fuel hoses, and carbon canister. It is reasonable to expect that these components should last through the required warranty period.

69. Comment: S2412.(d)(1)(A) What is the unit of negative one (1) for zero emission off-road vehicles? Is it g/km? (KAW)

    Agency Response: CARB staff made no changes based on the received comment. Yes, the unit for zero emission off-road vehicles is in grams/kilometer or g/km. This value

can be subtracted from the corporate fleet emissions average for each zero emissions OHRV sold, as described in section 2412(d)(1).

70. Comment: S2418.(c)(2)(A) and (B) What is CARB's direction on CCD-05-14 which allows high-temp accelerated testing? Will an FAQ be issued for this regulation? (KAW)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond.

71. Comment: S2419.4(b)(5)(C) describing five samples at the beginning of the paragraph may create confusion that five samples are required from 2020 MY certification. This issue is clearly described separately in the regulation language. This has the potential to create confusion for CARB certification representatives. (KAW)

    Agency Response: CARB staff has modified the language in the 15-day changes to clarify that manufacturers are allowed to use the U.S. EPA data with 3 component samples for certification in the phase-in period for harmonization (model years 2020 through 2026).

72. Comment: We still need to have E0-E10 certification guideline document for C/O engine families ASAP. Otherwise, we cannot schedule time for durability testing of 2022 MY alternative green sticker vehicles. (KAW)

    Agency Response: CARB staff made no changes based on the received comment. These comments are outside the scope of this rulemaking, irrelevant, or not specifically directed at CARB's proposed action or to the procedures followed by CARB in proposing or adopting the action, therefore, CARB is not required to respond.

V. Peer Review

Health and Safety Code Section 57004 sets forth requirements for peer review of identified portions of rulemakings proposed by entities within the California Environmental Protection Agency, including CARB. Specifically, the scientific basis or scientific portion of a proposed rule may be subject to this peer review process. CARB determined that the rulemaking does not contain a scientific basis or scientific portion subject to peer review, and therefore no peer review as set forth in Section 57004 was or needed to be performed.