Proposed Amendments to the Red Sticker Program for Off-Highway Recreational Vehicles

April 25, 2019
Purpose for Today

• End Red Sticker program and reduce OHRV emissions

• Align with federal requirements to minimize impact to OHRV industry

• Adopt more stringent standards to achieve needed emission reductions in 2027+
Off-Highway Recreational Vehicles (OHRV)

ALL-TERRAIN VEHICLES (ATV)

OFF-HIGHWAY MOTORCYCLES (OHMC)

UTILITY VEHICLES

SIDE-BY-SIDES

SNOWMOBILES
OHRV Emission Sources

Exhaust Emissions: during operation

Evaporative Emissions: during storage

ROG – Reactive Organic Gases

NO\textsubscript{x} – Oxides of Nitrogen
OHRV Regulatory History

1994: First OHRV exhaust emission standards

1998: CARB creates Red Sticker program

2006: U.S. EPA regulates OHRV with competition exemption

2013: CARB adopts evaporative emission standards

2017: Board Hearing Information Update on Red Sticker Assessment
What is the Difference Between Red and Green Sticker Vehicles?

**Green Sticker**
- Must meet emission standards
- Ride year round
- All OHRV types

**Red Sticker**
- Exempt from emission standards
- Seasonal riding restrictions
- OHMCs and ATVs only
Why Was the Red Sticker Program Created?

• Allow more time for manufacturers to develop full range of compliant vehicles

• Limit exhaust emissions in summer

• Allow for competition practice
More Green Sticker Models Available

1998 | 2017

Over 3 times as many models today compared to when the program began
Cleaner Technology is Available

Percentage of 2-stroke and 4-stroke Red Sticker OHMC Certifications

- 1998: 100% 2-stroke
- 2017: 40% 4-stroke, 60% 2-stroke
Red Sticker 4-stroke OHMCs are Close to Meeting Standards

U.S. EPA Standard: 2.0 g/km

CARB Green Sticker: 1.2 g HC/km

Engine Displacement

<table>
<thead>
<tr>
<th>Engine Displacement</th>
<th>HC+NOx Emission Rate (g/km)</th>
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<tr>
<td>150cc</td>
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<td>250cc</td>
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Riding Restrictions Ineffective

- Red Sticker vehicles are operated in ozone non-attainment areas during the summer
- No control of evaporative emissions
- Expected emission benefits not realized
Red Sticker Models Are Being Used Inconsistently with Federal Rules

Red Sticker Usage in CA

- Recreation + Other: 90%
- Race: 10%
- Practice: 10%

* - CARB Red Sticker Owner Survey (2016), Other includes commuting and farm and agriculture

CARB vs U.S. EPA Certification

- EPA Competition Exempt
- EPA Certified
- Red Sticker Only

OHMC Red Sticker Models

2009-2016 Model Year
Most OHRV Emissions are from Red Sticker OHMCs

- **2019**: 
  - Population: [Diagram showing population distribution]
  - Emissions: [Diagram showing emissions distribution]
  - ~40% of total OHRV emissions

- **2040**: 
  - Population: [Diagram showing population distribution]
  - Emissions: [Diagram showing emissions distribution]
  - ~70% of total OHRV emissions if no action is taken

**OHMC Red Sticker**

**All other recreational vehicles**
Sunset Red Sticker Program

- Program was meant to be temporary
- Does not provide expected emission benefits
- Not consistent with federal requirements
- Emissions are large and growing
Proposed Amendments

2020
Harmonize OHMC’s with U.S. EPA Standards

2022
End New Red Sticker Vehicle Sales

2025
End Red Sticker Vehicle Riding Restrictions

2027
More Stringent Standards Begin
Alternative Certification Paths

- Transfer of on-road evaporative systems
- Design-based certification
- Automatic fuel shut-off
Flexibility for OHRV Manufacturers

- Flexible fleet averaging requirements for all OHRV
- Additional incentives (credits) for zero emission OHRV
- Youth model provisions
Nearly 10 times as many certified models possible under proposed amendments
Reduce Emissions from ATVs & Side-by-Sides

• Suggested by industry
• Will offset relaxed OHMC standards
• Vehicles more suited to advanced controls
  • More space to house controls
  • Less sensitive to cost of controls
Benefits of Proposed Amendments

- OHRV Emissions Baseline
- Proposed Amendments

- 30% reduction
- 50% Reduction
Cost of Proposed Amendments

Average Increased Retail Cost Per OHMC: ~$300

- Starts with MY2022
- Covers all manufacturers costs of adding controls to models with no emission controls
- Does not impact Green Sticker models
- Does not impact existing OHRV
What the Proposal Will Do

- Increase Green Sticker vehicle availability in dealerships beginning with MY2020
- Harmonize with U.S. EPA standards in 2020
- End certification of new Red Sticker vehicles
- Lift seasonal riding restrictions for all existing Red Sticker OHRVs by 2025
- Promote cleaner OHMCs in 2027+
What the Proposal Will NOT Do

• Will **NOT** remove/restrict any *existing* Red Sticker vehicles
• Will **NOT** prohibit sale of uncontrolled OHRV for competition use
• Will **NOT** eliminate youth models
* Workshops for design and planning for assessment updates, emissions inventory presentation, survey updates, and early regulatory proposals
Stakeholder Concern: Model Availability

Model Availability

Staff Response

- Alternative certification pathways
- Flexible timing
- Consumers will have plenty of choices
- Harmonizes with U.S. EPA
Stakeholder Concern: Competition Vehicles

Staff Response

- Competition is important to riders and the industry
- True competition OHMCs still allowed
- Practice for competitive events
- Collaborative process

Management of Competition Vehicles
Stakeholder Concern: Zero Emission Vehicles

Staff Response
- Developing market segment
- ZEV emission credits
- Charging infrastructure
- Ongoing need for long term support
Summary

- Red Sticker Program does not work as intended
- Need to end Red Sticker certification and riding restrictions
- Proposal minimizes disruption to off-road vehicle market
  - Provides reductions needed to meet air quality goals
  - Includes flexible certification pathways and timing
  - Controls are technologically feasible and cost-effective
Proposed 15-Day Changes

- Staff proposes several changes based on stakeholder comments received:
  - Harmonize with U.S. EPA permeation test procedures
  - Modify youth model definition to 112cc
  - Clarify component certification requirements
  - Administrative and non-substantive changes
Staff Recommendation

• Adopt proposal, including 15-day changes
  • Provides reductions needed for air quality goals
  • Ends Red Sticker Program with minimal impact on stakeholders
• Collaborate with stakeholders to manage competition exempt OHRV
• Promote development of ZEV OHRV