WELCOME

Public Workshop:
Voluntary Accelerated Vehicle Retirement and
Voluntary Repair of Vehicles

August 31, 2006
Cal/EPA Headquarters Building
Coastal Hearing Room
9:30 a.m. to 1:00 p.m.

Before We Get Started

♦ Webcast communication information
  – Please send questions and comments to:
    Email address: coastalrm@calepa.ca.gov
Overview

- Proposed changes to voluntary accelerated vehicle retirement (VAVR) regulation
- Proposed Carl Moyer Program Guideline criteria for calculating reductions from retiring high emitting vehicles
- Proposed Carl Moyer Program Guideline criteria for voluntary repair of vehicles (VRV)
- Open discussion
- Next steps

Proposed Revisions to VAVR Regulation
Approaches Used to Modify VAVR

- Be consistent with authorizing legislation
- Expand program to include new technologies
- Avoid being overly prescriptive
- Increase flexibility to administer and operate VAVR
- Improve clarity and readability of regulation

Summary of VAVR Changes

- Authorizes optional use of technologies like RSD to identify high emitting vehicles (Section 2610)
- Authorizes extra emission reduction credits for retiring high emitting vehicles (Section 2608)
- Returns residency requirement to 24 months from 120 days, per VAVR legislation (Section 2603)
- Deleted Section 2610, Pilot Program completed
- Deleted Section 2611, M1 not funding
- Replaced Appendix D tables with calculation method
VAVR Regulation Changes by Section

♦ Section 2601 Definitions
  – 7 new definitions and 6 definitions deleted
♦ Section 2602 District Responsibility
  – Concentrated district responsibilities in one location
♦ Section 2603 Vehicle Eligibility
  – Residency revised to 24 month from 120 days
  – Tampered vehicles not eligible for VAVR per legislation
♦ Section 2604 VAVR Enterprise Operator Requirements
  – Concentrated responsibilities of enterprise operators in one location

VAVR Regulation Changes by Section continued

♦ Section 2605 Offering Vehicles to the Public
  – Changes in acronyms and references
  – No changes to vehicle collector provisions
♦ Section 2606 Parts Recycling and Resale
  – Grammatical, wording, and reference changes
♦ Section 2607 Advertising
  – Acronym and wording changes
♦ Section 2608 Emission Reduction Credits
  – Reorganized requirements
  – Extra emission reduction credits authorized
VAVR Regulation Changes by Section

- Section 2609 Records and Auditing
  - Unrelated subsections were removed
- Section 2610 Pilot Program
  - Deleted section, program completed
- Section 2610 Identification of High Emitting Vehicles
  - Authorizes optional use of technologies like RSD to identify potential high emitting vehicles
  - Requires ARB-approved detailed plan prior to program start
  - Lists elements to be included in the high emitter plan
- Section 2611 Procurement of Credits for SIP Measure M1
  - Deleted section, Measure M1 unfunded

VAVR Regulation Appendices Changes

- Functional/Equipment Eligibility Form
  - Revised Appendix A consistent with proposed regulation
- Emission/Drive Train-Related Parts List
  - Re-labeling as Appendix B
  - Instructions moved from regulation text to parts list form
- Quality Control Checklist
  - Re-labeling as Appendix C
- Calculation of Emission Reductions
  - Re-labeled as Appendix D
  - Replaced emission reduction table with equations used to calculate default emission reductions
Responses to Comments - VAVR

♦ Do not specify the number of RSD measurements required to identify a high emitting vehicle
♦ Do not specify the time limit between an RSD measurement and the solicitation letter
♦ The operation of a high emitting vehicle VAVR program should not be limited to air districts
♦ Technology should be limited to only RSD
♦ RSD may not be properly implemented
♦ RSD cut points may be biased

Proposed Carl Moyer Guidelines for Calculating Reductions for VAVR of High Emitting Vehicles
Introduction

♦ General approach
♦ Changes from concepts presented at June workshop
♦ Responses to issues raised at workshop or from comments

Vehicle Eligibility

♦ Included provisions outlined at June workshop
  – RSD/high emitter profile/other technologies used as screening tool to identify possible high emitting vehicles
  – Smog Check test required to verify that the vehicle is a high emitting vehicle
♦ Added option of two speed idle test for vehicles that cannot be dynamometer tested
♦ All other eligibility requirements in VAVR regulation and Carl Moyer Guidelines apply
Calculating Emission Reductions

♦ Emission reduction formula

\[ E = (E_{ret} - E_{rep}) \times \text{Life} \]

Where:

- \( E_{ret} \) = Emission rate of retired vehicle \times VMT of retired vehicle
- \( E_{rep} \) = Emission rate of replacement vehicle \times VMT of replacement vehicle
- Life = Credit life

Emissions of Retired Vehicle

♦ Emission rate of retired high emitting vehicle
  - From retirement date until next scheduled biennial Smog Check, equal to Smog Check measurement (converted from ppm to gram per mile)
  - After date of next Smog Check, emission rate equal to Smog Check ASM cutpoint
    • Change from June workshop
  - Assume 1 year until next Smog Check

♦ VMT of retired vehicle equal to average VMT of model year
Emissions of Replacement Vehicle

♦ Emission rate of replacement vehicle
  – Default: equal to “fleet average” emission rate as in current regulation
  – If a LEV-certified vehicle is required, equal average emission rate of model year of LEV purchased
    • Change from June workshop
♦ Replacement vehicle VMT equal to retired vehicle VMT
♦ Credit life equals 3 years

Evaporative Emissions

♦ Evaporative reductions based on methodology for conventional VAVR programs
  – Exhaust high emitters are not always evap high emitters
♦ Optional evaporative testing may be conducted to identify high emitters
  – Low pressure fuel evaporative testing equipment in BAR certification process
  – Follow BAR test procedure
  – Vehicles failing test eligible for extra emission reductions
♦ Extra emission reductions for high emitters based on pilot studies
Particulate Matter (PM) Emissions

♦ PM reductions based on methodology for conventional VAVR programs
  – NOx and ROG exhaust high emitters are not always PM high emitters
♦ Smog Check doesn’t test for PM and no roadside testing method demonstrated
♦ If viable method to identify and measure PM high emitting vehicles, ARB staff would support extra reductions
  – VAVR project plan must detail how PM to be quantified
  – Cannot rely on extra PM emission reductions to show program cost-effectiveness

Flexibility for VAVR Programs

♦ At June workshop, many stakeholders commented on need for flexibility in designing programs
♦ Proposed guidelines provides this flexibility
  – VAVR project plan must describe unique elements of program
    • Must result in real, surplus, quantifiable, and enforceable reductions
  – VAVR project plan must describe proposed modifications to calculation methodology
  – VAVR project plan subject to ARB approval
VAVR Cost-Effectiveness

♦ VAVR programs funded through Carl Moyer Program must meet cost-effectiveness limit of $14,300 per weighted ton of ROG, NOx, and PM
♦ Funds used to identify high-emitting vehicles (e.g. RSD cost) included in cost-effectiveness calculation
♦ Administrative costs of running VAVR program not included in cost-effectiveness calculation
  – Outreach, solicitation, data analysis
  – Subject to limits associated with funding source

Proposed Carl Moyer Guidelines for Voluntary Repair of Vehicles (VRV) Programs
VRV Introduction

♦ Key provisions
  – Emission reductions must be surplus, can’t fund repairs that would have happened anyway
  – Systematic diagnosis and repair to ensure durable reductions
  – Consumer protection
♦ Overview of requirements
  – Changes from concepts presented at June workshop
  – Responses to issues raised at workshop or in comments

Vehicle Eligibility

♦ Vehicle eligibility requirements need to ensure surplus reductions
  – Included all provisions outlined at June workshop
  – Additional provisions
    • Vehicles under warranty not eligible
    • Vehicles registered to businesses, fleets, or non-profit organizations not eligible
  – Other ideas?
♦ Districts may impose additional eligibility requirements
Repair Requirements

♦ Included repair requirements outlined at June workshop

♦ Additional requirements
  – Provisions to ensure systematic diagnosis and repair following standard industry practices
  – Consumer protection provisions
    • All auto repair laws and regulations must be followed
    • District staff or third party to handle complaints
  – Provide districts option of including evaporative and PM repairs

Calculating Emission Reductions

♦ Emission reductions
  – Included all provisions outlined at June workshop
  – Evaporative benefits based on ARB pilot study
  – Quantifying PM benefits subject to demonstration of viable measurement method

♦ Cost-effectiveness calculations
  – Include costs to identify high emitting vehicles
  – Include costs from diagnoses that don’t lead to successful repairs
Flexibility for VRV Programs

- Proposed guidelines provides flexibility for districts in designing VRV programs
  - VRV project plan must describe unique elements of program
    - Must result in real, surplus, quantifiable, and enforceable reductions
  - VRV project plan must describe any proposed modifications to calculation methodology
  - VRV project plan subject to ARB approval

Discussion and Public Comment

Email address: coastalrm@calepa.ca.gov
Next Steps

♦ ARB continues to solicit your input
♦ Written comments by September 22, 2006
♦ Regulatory staff report and proposed Carl Moyer Guidelines to be released October 20, 2006
♦ Adoption hearing scheduled for December 7, 2006
♦ For more information, visit ARB’s VAVR website
  – http://www.arb.ca.gov/msprog/avrp/avrp.htm

Contacts

♦ Please contact the following staff to share your input:

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