WELCOME

Public Workshop to Discuss Revisions to the Voluntary Accelerated Vehicle Retirement Regulation

March 20, 2006
Coastal Hearing Room
9:30 a.m. to 12:00 p.m.

Before We Get Started

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

♦ Staff presentation
  – Introduction
  – Voluntary Accelerated Vehicle Retirement (VAVR)
  – Carl Moyer Program
  – Remote Sensing Devices (RSD)
  – Regulation Revision Questions
  – Voluntary Repair of Vehicles (VRV) Issues
♦ Open discussion
♦ Next steps

Introduction

♦ Purpose of workshop
♦ Rule-making process
♦ Goals of the proposed revisions
  – Add optional use of remote sensing devices (RSD)
  – Clean-up/clarify regulatory language
♦ Not under consideration
  – Voluntary nature of vehicle retirement
  – Vehicle collector provisions
The VAVR Program

Background - Emissions

- Light-duty vehicles are major contributor to ozone and PM pollution
  - 580 tpd ROG and 575 tpd NOx in 2005
  - 21% of ozone precursors
- Pre-1990 models
  - 19% of population/13% of vehicle miles traveled
  - 57% of ROG/41% of NOx from light-duty vehicles
The VAVR Program
Background - Overview

♦ Program elements:
  - Voluntary participation
  - Retires older, more polluting vehicles early through monetary incentives
  - Reduces motor vehicle emissions
  - Administered by air districts/overseen by ARB
  - Complements BAR’s vehicle retirement program

♦ History:
  - Legislation: Health & Safety Code §44100-44122
  - Regulation: Code of California Regulations, Title 13, §2600-2611

The VAVR Program
VAVR Regulation - Administration

♦ ARB: (program oversight)
  - Approve projects
  - Audit districts

♦ Districts: (implementation and enforcement)
  - Monitor and audit enterprise operators
  - Verify that the vehicle has been crushed
  - Keep records

♦ Enterprise operators: (licensed auto dismantlers)
  - Verify DMV registration and perform inspections
  - Hold the vehicle for possible purchase
  - Crush the vehicle
  - Keep records
The VAVR Program

VAVR Regulation - Car Collector Provisions

♦ Legislation requires VAVR programs to be sensitive to car collector concerns
♦ 10 day vehicle holding period to allow public opportunity to purchase
   – Entire vehicles or drive train parts may be sold, but no emission reductions claimed
   – Non-emission and non-drive train parts may be recovered from vehicles that are scrapped for credit
♦ Staff is not proposing to change these requirements

The VAVR Program

VAVR Regulation – Vehicle Requirements

♦ Currently registered by the DMV for at least 120 days in the district
  – Not as strict as Health & Safety Code §44094
  – Will propose correcting this to 24 months
♦ Non-tampered
♦ Must
  – Operate under its own power
  – Be driven to purchase location
  – Pass functionality and eligibility inspections
The VAVR Program
VAVR Regulation - Emission Reductions

♦ Three year lifetime
♦ Calculated using EMFAC and annually updated

Reductions = [Emissions_{ret} – Emissions_{rep}] x [Life]

Where:

Emissions_{ret} = ave. emission rate for MY of retired vehicle
x average VMT for MY of retired vehicle

Emissions_{rep} = ave. emission rate for light-duty fleet
x average VMT for MY of retired vehicle

Life = 3 years

♦ Emission reduction table in 2005 CMP Guidelines

The VAVR Program
VAVR Regulation - Smog Check Status

♦ Emission reductions must be surplus to Smog Check
♦ Vehicles must:
  – Not failed Smog Check if within 61 to 90 days of next inspection
  – Passed Smog Check if within 60 days of next inspection
  – Not be operating under a repair cost waiver
Carl Moyer Program

Background

♦ Provides grants to offset incremental cost of cleaner technology
♦ Emission reductions are real, quantifiable, surplus, and enforceable
♦ Legislative changes in 2004 included:
  – Added light-duty vehicle retirement and repair projects
  – Provided on-going funding sources
♦ Moyer Guidelines adopted in 2005 included VAVR programs
Carl Moyer Program
Criteria for VAVR Projects

♦ Districts must
  – Submit plan to ARB before starting VAVR projects
  – Report annually to ARB

♦ Projects must
  – Comply with all provisions of the VAVR regulation
  – Meet cost-effectiveness limit of $14,300 per weighted ton
    of pollutant (ROG + NOx + 20PM)

♦ ARB to conduct annual reviews

Remote Sensing Devices (RSD)
Remote Sensing Devices
Background

♦ RSD
  – Uses infrared and/or ultraviolet spectroscopy
  – Measures ROG, CO, and NOx concentrations
  – Used at roadside locations such as on-ramps
  – Effective tool for identifying higher emitters
♦ Video equipment records vehicle license

Remote Sensing Devices
Emission Reductions

♦ Retired higher emitting vehicles identified by RSD should be eligible for extra emission reductions
  – Methodology to be developed
♦ Data sources
  – South Coast AQMD RSD-VAVR project
  – BAR/ARB RSD study
Remote Sensing Devices
Challenges

♦ Regulatory procedures must ensure
  – Proper calibration, operation, maintenance
  – Consistent from location to location
  – Standardized data storage, analysis, and interpretation
♦ Correlation between RSD readings and in-use grams per mile (g/mi) emissions

Regulation Revision Questions
Regulation Revisions
Current Goals

♦ The Proposed Revisions will
  − Focus on permitting the optional use of RSD
  − Define the methodology for calculating extra emission reductions for RSD-identified higher emitting vehicles
  − Change registration requirement from 120 days to 24 months for consistency with the Health and Safety Code
  − Clean up and clarify existing regulatory language

♦ ARB Staff Solicits Your Input

Regulation Revision Questions
RSD Operational Protocols

♦ How should regulatory protocols for RSD be specified in regulation?
♦ Should dual RSD measurements be required?
♦ How recent should a qualifying RSD reading be?
♦ How high should an RSD reading be for a vehicle to be considered high emitting?
♦ Can RSD reliably determine PM emissions?
Regulation Revision Questions
RSD: Screen tool or emission estimator

♦ Can equations be developed to convert RSD reading into g/mi emission rate?
♦ Should an ASM Smog Check be required to confirm a fraction of or all RSD-based emission estimates?
  – Are equations relating ASM measurements to g/mi emission rates adequate?
♦ What overall confidence level is acceptable for estimating extra emissions?

Regulation Revision Questions
RSD and Smog Check

♦ How should RSD extra emission reduction and Smog Check reduction benefits be reconciled?
  – Time to next Smog Check: i.e., assume 1 year or use actual dates
  – Post Smog Check emissions: i.e., average model year, repaired to ASM cut points, other
Regulation Revision Questions
RSD Emission Reduction Benefits

♦ Should credit life remain at the three year default?
♦ How should emission benefits be determined for vehicles highly emitting only one pollutant?
♦ Should evaporative emission reductions be included, and if so, using what methodology?

Voluntary Repair of Vehicles (VRV) Issues
Voluntary Repair of Vehicles
Concepts to Consider

♦ Regulation or Carl Moyer Program Guidelines
♦ Program entry requirements
♦ Calculating emission reductions
  – Pre/post ASM Smog Check tests
  – Avoid double counting Smog Check/normal repair
  – Credit life
♦ Program design
  – Repair cost limits
  – Customer repair cost sharing
  – Repeat customers
  – Cash or vouchers

Discussion and Public Comment

Email address: coastalrm@calepa.ca.gov
Next Steps
VAVR Regulation Update Schedule

♦ Written comments by April 28, 2006
♦ Next workshop scheduled for Summer 2006
   – More details on regulatory concepts
   – Possible preliminary draft regulatory language
♦ Fall workshop on proposed regulatory language
♦ Adoption hearing scheduled for December 2006
♦ For more information, visit the VAVR web page:
  www.arb.ca.gov/msprog/avrp/avrp.htm

Contact Information

♦ Please contact the following staff to share your input:

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