An Overview of Cal/EPA's Air Resources Board's Enforcement Programs

July 2006

Enforcement Division Mission Statement

"To protect public health and the environment by maximizing reductions in emissions of air contaminants and exposure to air contaminants through the fair, consistent and comprehensive enforcement of statutory and regulatory requirements for sources of air pollution under ARB jurisdiction."

Enforcement Division Goals and Objectives

- Achieve maximum emission reductions from air pollution laws and regulations
- Provide comprehensive & consistent application of enforcement of air quality laws, rules and regulations
- Level playing field for all involved

Enforcement Division

- Day-to-day programs for both mobile & stationary sources
- Special investigations
  - Air quality
  - Multi-environmental media

Enforcement Process

- **Discovery**
- **Investigation**
  Enforcement Division
- **Settlement or prosecution**
  Office of Legal Affairs

2005 ENFORCEMENT STATISTICS

- **1576 Cases Closed**
- **$11.8M in Penalties Collected**
- **View Our Annual Enforcement Report at:**
  WWW.ARB.CA.GOV/ENF/ENF.HTM

Clear Day
Los Angeles

Smoggy Day
Los Angeles

Health & Environmental Impacts of Pollutants

Constituent	Detrimental Effects
Particulates (PM_{10}/$PM_{2.5}$)	Carcinogenic-Mutagenic Respiratory Diseases
HC & NOx (Smog Precursors)	Ozone (Smog) Respiratory Diseases Crop Losses
NOx & SOx	Acid Deposition Visibility Degradation
Toxic Air Contaminants	Carcinogens
CO2	Greenhouse Gases

Enforcement Division

Mobile Source Enforcement Programs

Mobile Source Compliance Process

New Vehicle Certification

New Vehicle Audit/Compliance

Dealership Inspections

In-Use Testing (Recall)

SMOG CHECK

I/M

R.I.P. (Scrap)

Mobile Source Enforcement Activities

- Motor vehicle and non-road engine certification
  - Non-California certified engines
  - Illegal “49-State” vehicles
  - Grey market vehicles
- Mobile sources -- in-use
  - Illegal emissions-related parts
  - Heavy-duty vehicle inspections
  - Recall

On-Road Certification

Category	2005 Model Year Engine Families	Annual Sales (Calendar year 2000)
Passenger cars Light-duty trucks Medium-duty vehicles	434	2,414,466
Heavy-duty engines	96	107,709
Motorcycles	217	52,468

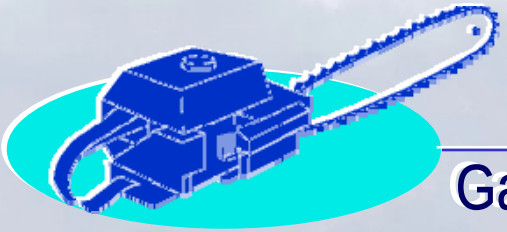
Off-Road Certification

Category	2005 Model Year Engine Families	Annual Sales (CY 2000)
Small engines (< 25 hp)	337	1,400,000
Heavy-duty diesel engines (>175 hp)	557	12,000
Dirt bikes & ATVs	291	11,000
Large spark-ignition engines (>25 hp)	48	12,000
Spark-ignition marine engines	142	60,000

Non-California Certified Engines

Small Off-Road Engines Can be Big Polluters

Hydrocarbon emissions after one-half hour of use



Gasoline-powered chainsaw — 300 grams

Gasoline-powered lawnmower — 70 grams

1991 automobile — 12 grams

Overview of SORE Regulations

- **Tier I Standards**
  - Applies to engines under 25 horsepower
  - Effective January 1995
  - Cut emissions by 30 to 70 percent
  - Some still emit 25 percent raw, unburned gas
- **Tier II Standards**
  - Effective January 2000
  - Cut HC/NOx emissions by 74 percent (2010)
  - Requires durability in emission control systems

Sold to a Retail Customer in Sacramento, CA

2005 v. 1966 Mustang 95% Cleaner

49-State Vehicle Cases

VEHICLE EMISSION CONTROL INFORMATION

MANUFACTURER: VOLVO CAR CORP SWEDEN
ENGINE: B5254S
ENGINE DISPLACEMENT: 2435 cm³ 149 cu in
ENGINE FAMILY: WVVXV 2.43 TPF
EVAPORATIVE / REFUELING FAMILY:
WVVXRO 133 PA1 (§ 86.130-96 PROCEDURES)
EXHAUST EMISSION CONTROL SYSTEM: SFI, HO2S(2), TWC, AIR.

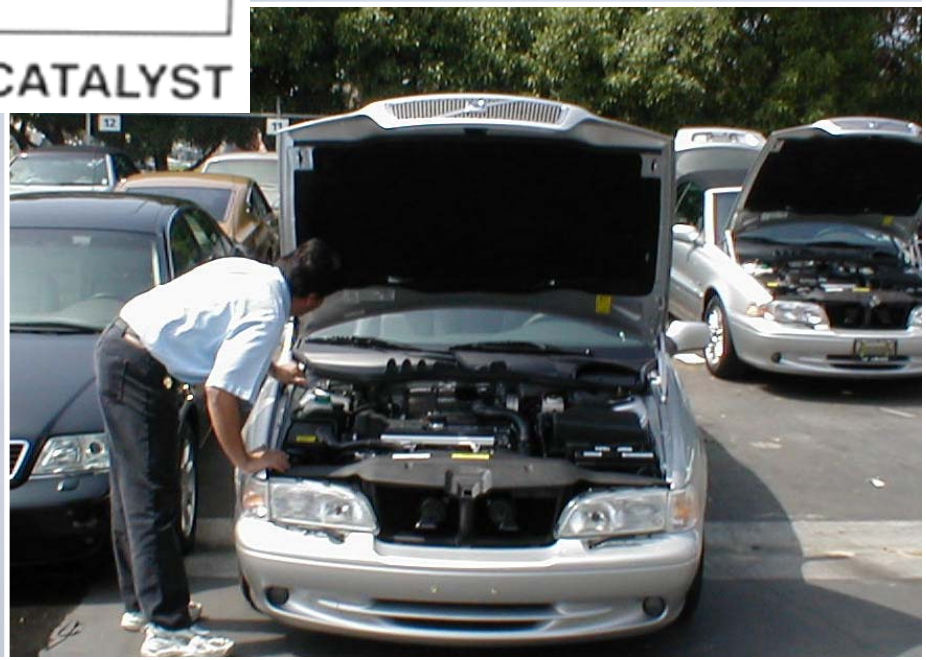
24VDGDBF

EXHAUST EMISSIONS STANDARDS	STANDARD CATEGORY
CERTIFICATION	TLEV

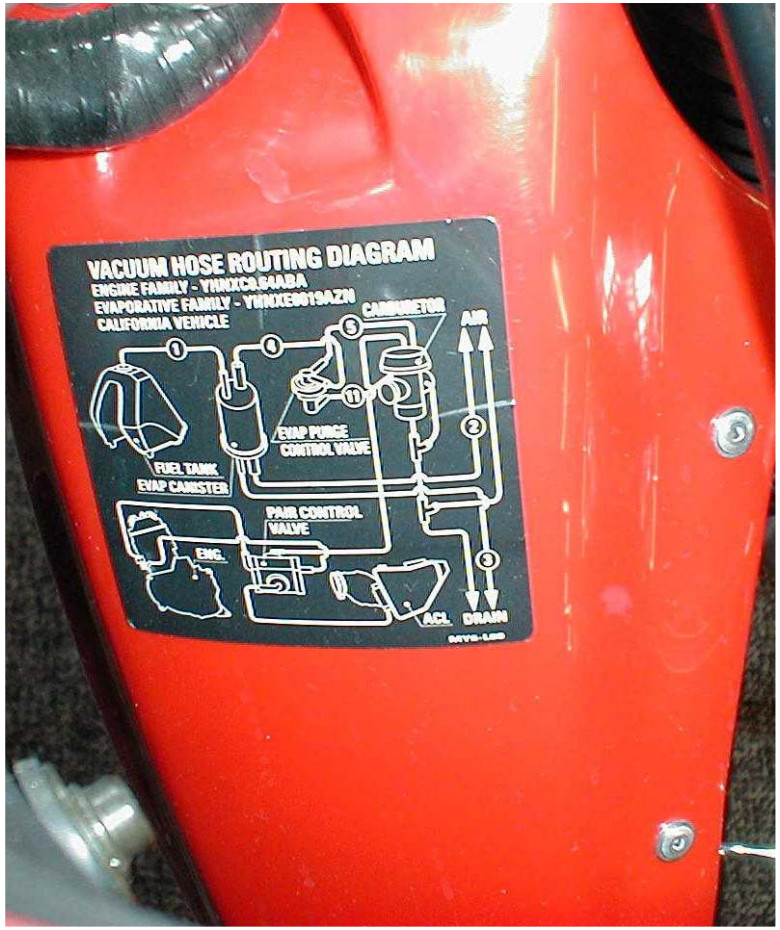
TUNE-UP SPECIFICATIONS: NO ADJUSTMENTS NEEDED

THIS VEHICLE CONFORMS TO US EPA AND CALIFORNIA REGULATIONS APPLICABLE TO 1998 MODEL YEAR NEW TLEV PASSENGER CARS

CATALYST



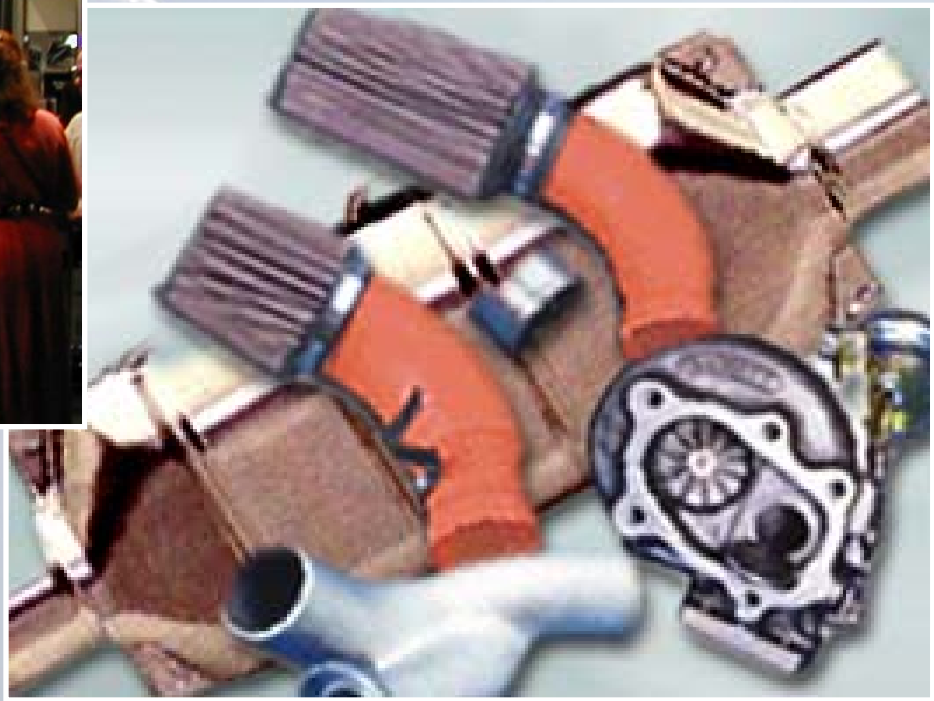
On-Road Motorcycles



Off-Road Motorcycles

Grey Market Vehicle Cases

Aftermarket Parts

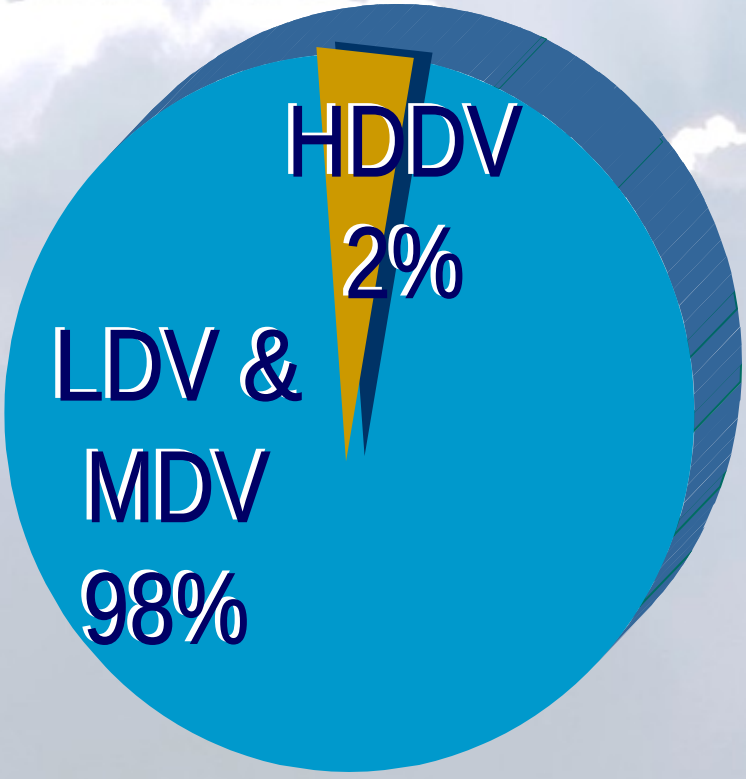


Motorized Scooters & Pocket Bikes

Enforcement Division

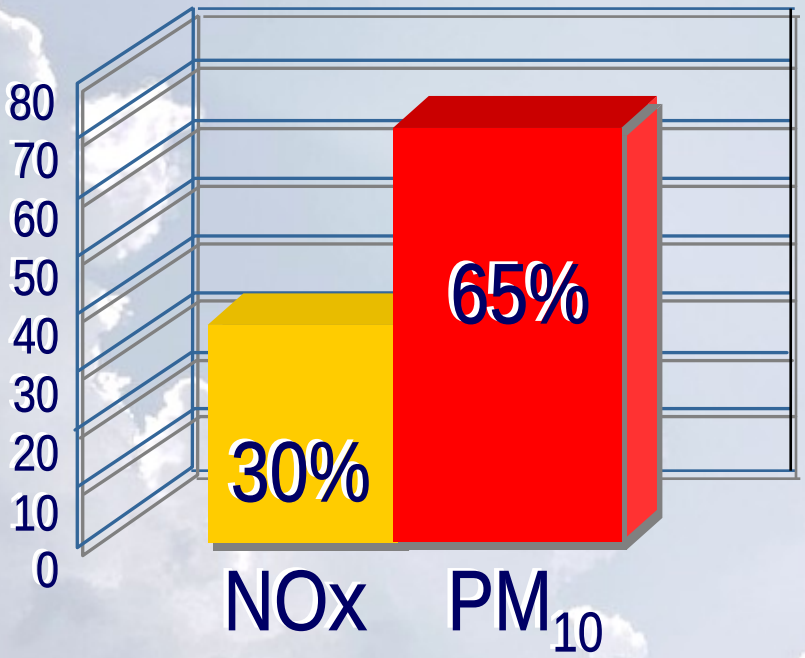
Heavy-Duty Diesel Vehicle Inspections

Heavy-Duty Diesel Emissions
(NOx & PM)



% of Total On-Road Vehicles

% of On-Road Vehicle Emission Inventory



SAE J1667
Snap-Acceleration Test

HDVIP Statistics

	HDVIP I (1991 - 1993)	Current Program (June 98 - Dec 04)
No. Visual Inspections	38,947	116,734
Number of Citations	8,492	5,795
Number of NOVs	N/A	1,929
Total Violations	8,492	7,724
Failure Rate	22%	7.0%
Number Appealed	1,157 (14%)	122 (1.6%)
Penalties Assessed	$2,613,300	$ 1,848,000
Penalties Collected	$2,061,500	$ 1,457,037

Enforcement at the Mexican Border & NAFTA

- SB 270 (Peace 1998) authorized:
  - Full time enforcement at
    - ✓ Otay Mesa Crossing
    - ✓ Calexico Crossing
  - Facility improvements
- ~3,500 commercial vehicles per day at these crossings
- NAFTA Issues & Litigation (US Supreme Court decision 6/7/04)
- AB 1009 (Pavley 2004)

Inspections/Violations
CHP CVIFs: 5653/370*
Failure Rate: ~7.0%
Random Roadsides: 1738/276
Failure Rate: ~16%

*Includes random roadside data through CY 2004

REPORT SMOKING VEHICLES TO
1-800-END-SMOG
WWW.ARB.CA.GOV/ENF/ENF.HTM

Other Heavy Duty Diesel Programs

- Low NOx Reflash for HDDEs
- Idling Restriction Regulations
- Solid Waste Collection Vehicles
- Annual Fleet Inspections
- Transportation Refrigeration Units

Enforcement Division

Fuels and Consumer Products Enforcement Programs

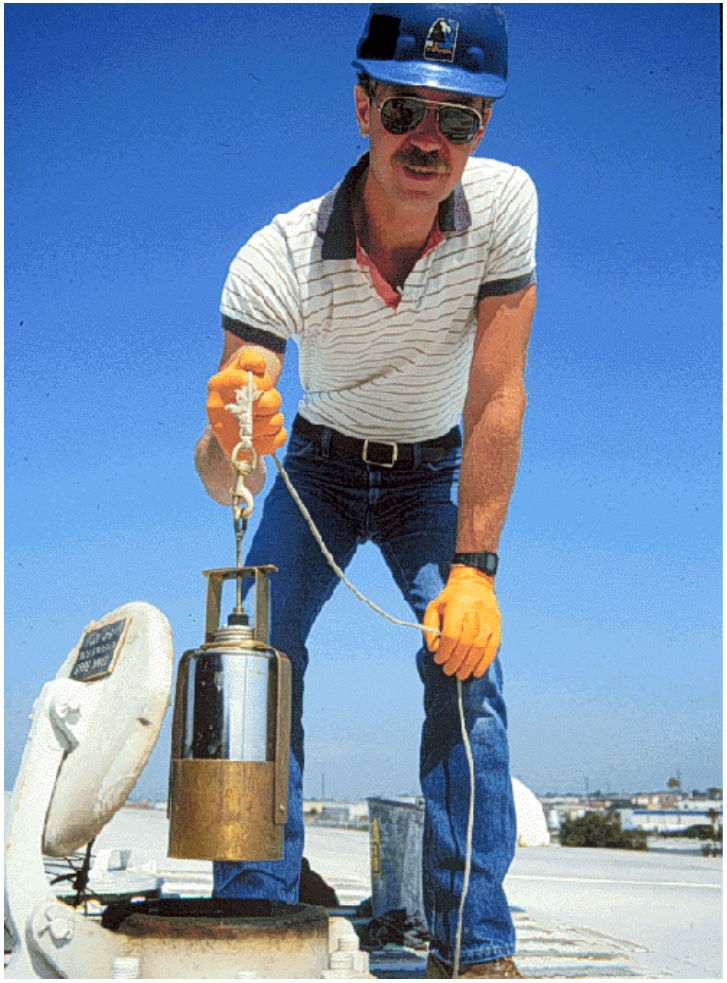
Fuels/Consumer Products Enforcement Activities

- Motor Vehicle Fuels
- Consumer Products
- Portable Fuel Containers and Spouts
- Cargo Tanks

Motor Vehicle Fuels Enforcement

- **15.9 billion gallons of gasoline/year**
- **2.8 billion gallons of diesel/year**
- **21 refineries**
- **80 bulk terminals**
- **12,000 service stations**
- **10 gasoline importers** *(other than refineries)*
- **Test 10% of fuel/year**

Fuel Sampling



Mobile Fuels Laboratory

Mobile Fuels Laboratory

Consumer Products Enforcement

- VOC content limits to reduce emissions
- Over 100 categories of household and institutional products
- MIR limits for aerosol coatings to reduce ozone formation
- 1200 samples per year analyzed from retailers, wholesalers, & the internet

Portable Fuel Containers and Spouts

- Gasoline and Diesel containers and spouts
- 10 gallons capacity or less
- Requirements:
  - Automatic closure to reduce evaporation and spillage
  - Treated to prevent permeation
  - Automatic shut-off to reduce overflow
  - 1 opening for filling & refueling
  - Labeling Requirements

Cargo Tank Enforcement

- Certify 4,982 cargo tanks annually
- Audit cargo tank testers
- Conduct random testing of cargo tanks
- 17% tested annually

Enforcement Division

Stationary Source Enforcement Programs

Strategic Environmental Investigations & Enforcement

- Major investigations having statewide impact
  - Cross media cases
  - Cal/EPA MOU
  - State & local agency coordination
  - Taskforce participation
- Surveillance expertise
- Special projects

Surveillance Expertise

- Support provided for Cal/EPA & local enforcement agencies
- Imaging technologies
  - Video surveillance
  - Time lapse cameras
  - Infrared illumination & imaging
  - Battery or utility powered
  - Digital video & digital still photography
- Experienced & helpful staff

Statewide Portable Equipment Registration Program (PERP)

- Enforcement project conducted in partnership with local districts
- Involving 20 ARB staff
- 404 inspections
- 47% are "Scofflaws"
  - 15,000~20,000 in CA *(estimate)*
  - Dirty old engines lead to excess emissions
- Local funding issue

Enforcement Intelligence

- New Cal/EPA initiative
- Cross-agency coordination
- Data integration & analysis
- Status:
  - Planning-formulation stages
  - Assembling team, writing charter
  - Identifying assets
  - Setting implementation goals

Asbestos Enforcement Program

- Enforces Asbestos NESHAP in 16 districts
- Receives >600 D/R notifications / year
- Conducts >30 site inspections / year
- NARS/ACTS database; monthly reporting
- Conducts two Asbestos Task Force meetings
- Responds to 500^{+} phone calls per year

Complaint Investigations

- Conduct inspections when requested
- Assist in air pollution enforcement case development
- Research stationary source issues and propose solutions

Variance Program

- Review ~650 variance orders/year
- Audits district variance programs & hearing board procedures
- 5 - 6 annual Hearing Board Workshops
- 200+ monthly variance entries in database
- Monthly variance report

Aerometric Information Retrieval System (AIRS)

Compliance and High Priority Violator Program

- Collect, review & input data from 26 air districts
- Conduct mini-audits of district AIRS programs
- Generate quarterly (compliance) and monthly (high priority violators) reports to districts and U.S. EPA
- Respond to public information requests

Continuous Emissions Monitoring (CEM) Program

- Health & Safety Code section 42706
- Collect & maintain CEM database
- Monitor excess emissions & chronic violators

Complaint Hotline
1-800-952-5588

- Respond to >500 citizen complaints & inquiries/year
- Maintain a compliance database
- Perform follow-up complaint investigations

Agricultural & Open Burning Program

- Research & address burn smoke management issues
- Review district burn rules & smoke management plans
- Conduct aerial surveillance for compliance with field crop burning rules

Enforcement Division

Special Investigations

Environmental Justice Common Affected Areas

- Mixed industrial/ residential areas
- Larger percentage of ethnic groups
- Pollution exposure is generally higher than average
- Zoning & permits not always enforced

Focused Environmental Inspections In EJ Communities

- Tampered vehicles
- Smoking vehicles
- Illegal cargo at ports
- Illegal diesel fuel use
- CHP safety inspections
- Hazardous materials
- Unsecured loads

ICC 299714
CA 296350

Future Enforcement Mission

- Cross-train staff to maximize resources
- Develop new measures of enforcement effectiveness
- Create significant presence in regulated community
- Integrated stationary source/mobile source/legal enforcement program

Contact Information

Cal/EPA--Air Resources Board

Enforcement Division

1-800-952-5588

916.322.7061

1-800-END SMOG

www.arb.ca.gov/enf/enf.htm