



CARB's Mobile Source Certification and In-Use Compliance Programs

April 22, 2021

Presentation Overview

- Mobile Source program goals
- Certification programs
- Application processes and timelines
- In-use programs

Mobile Source Cert/Compliance Goals

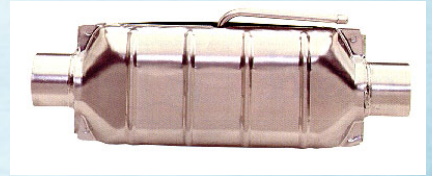
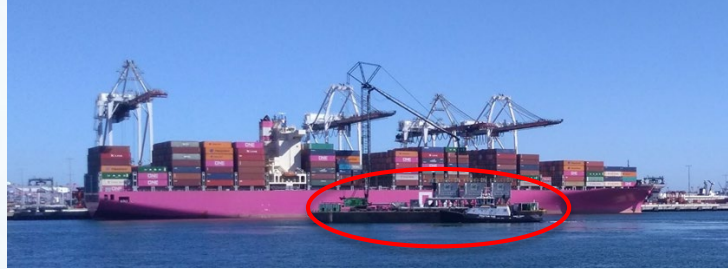
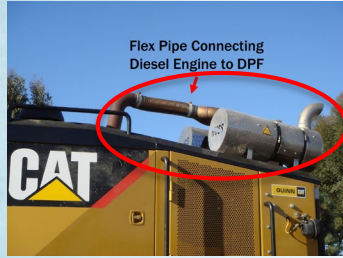
Ensure vehicles and engines durably meet CARB's emission standards and requirements

- Certify that vehicles, engines, and devices meet regulatory requirements before sale in California
- Protect against emission increases from improper emission control system modifications
- Confirm compliance in the field and resolve in-use issues in a timely manner

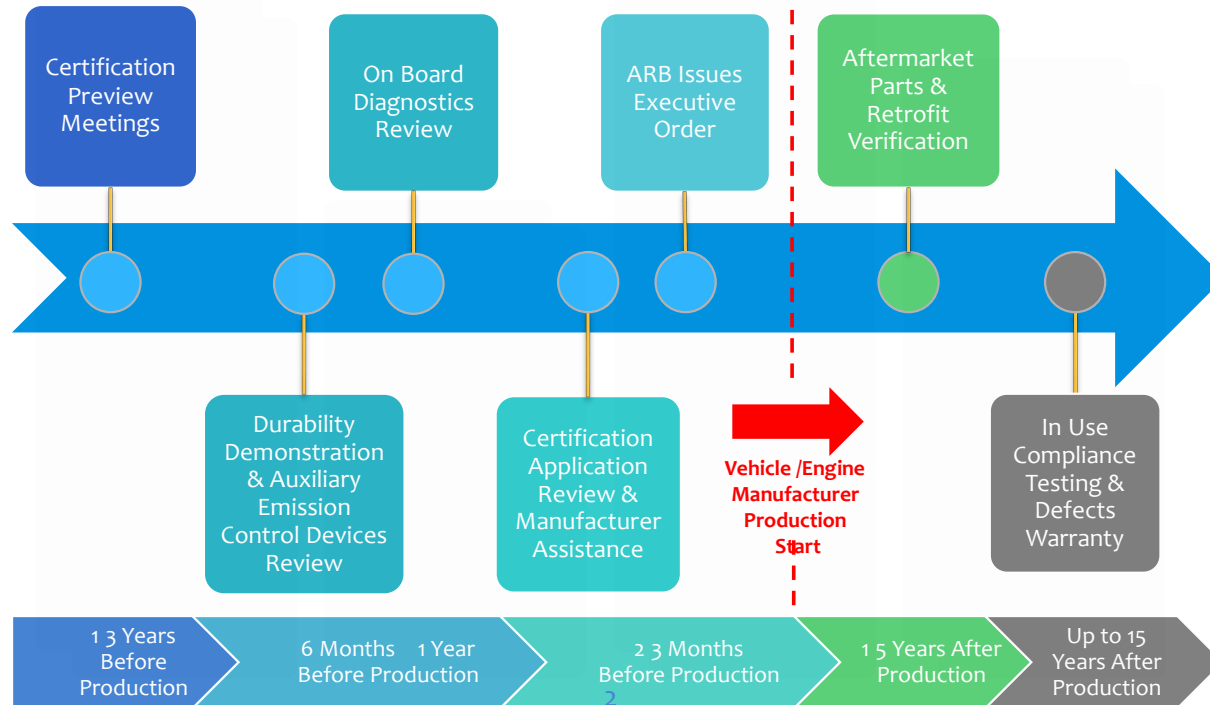
On-Road and Off-Road Certification Categories



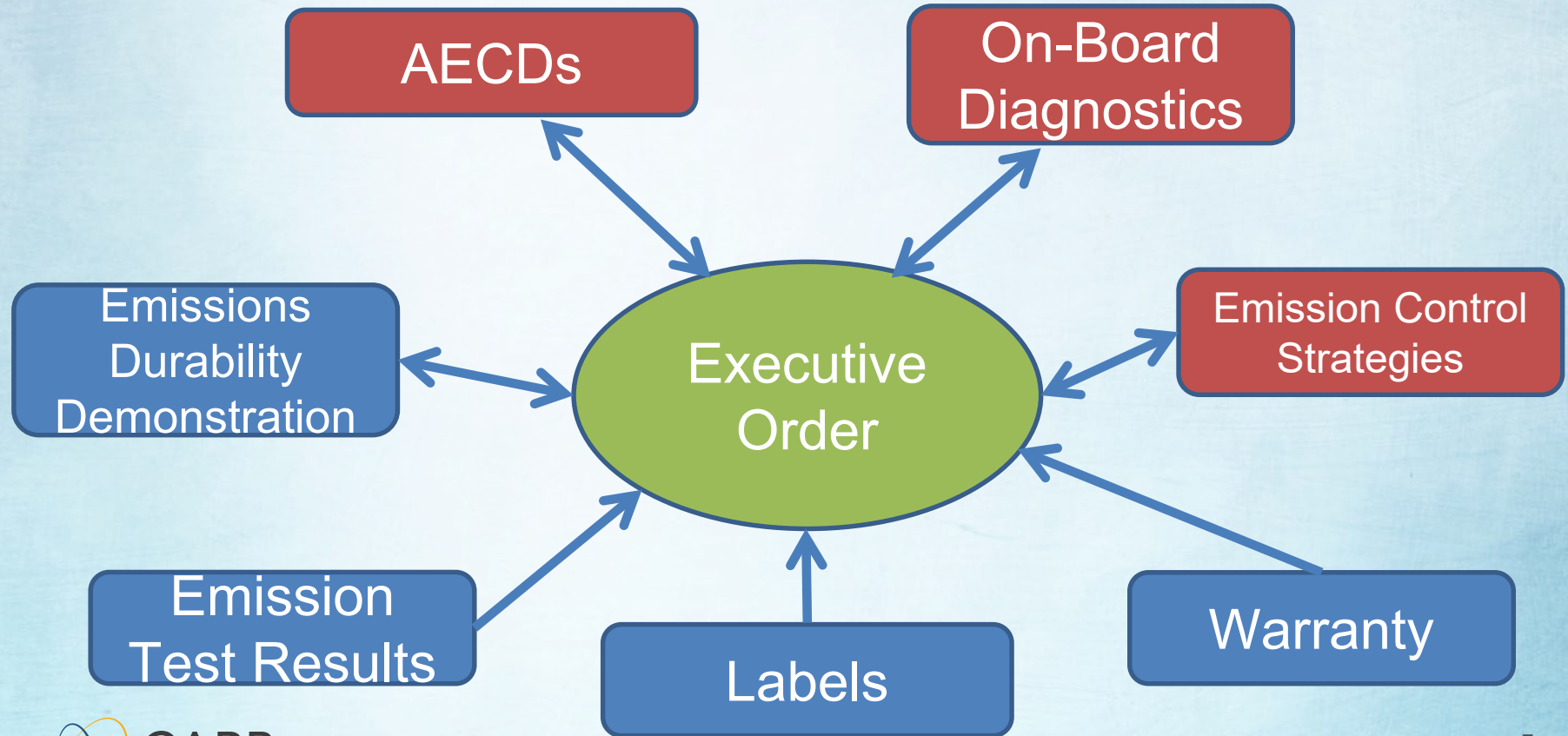
Aftermarket Part and Mobile Source Parts & Retrofit Categories



Certification/Compliance Process Timeline

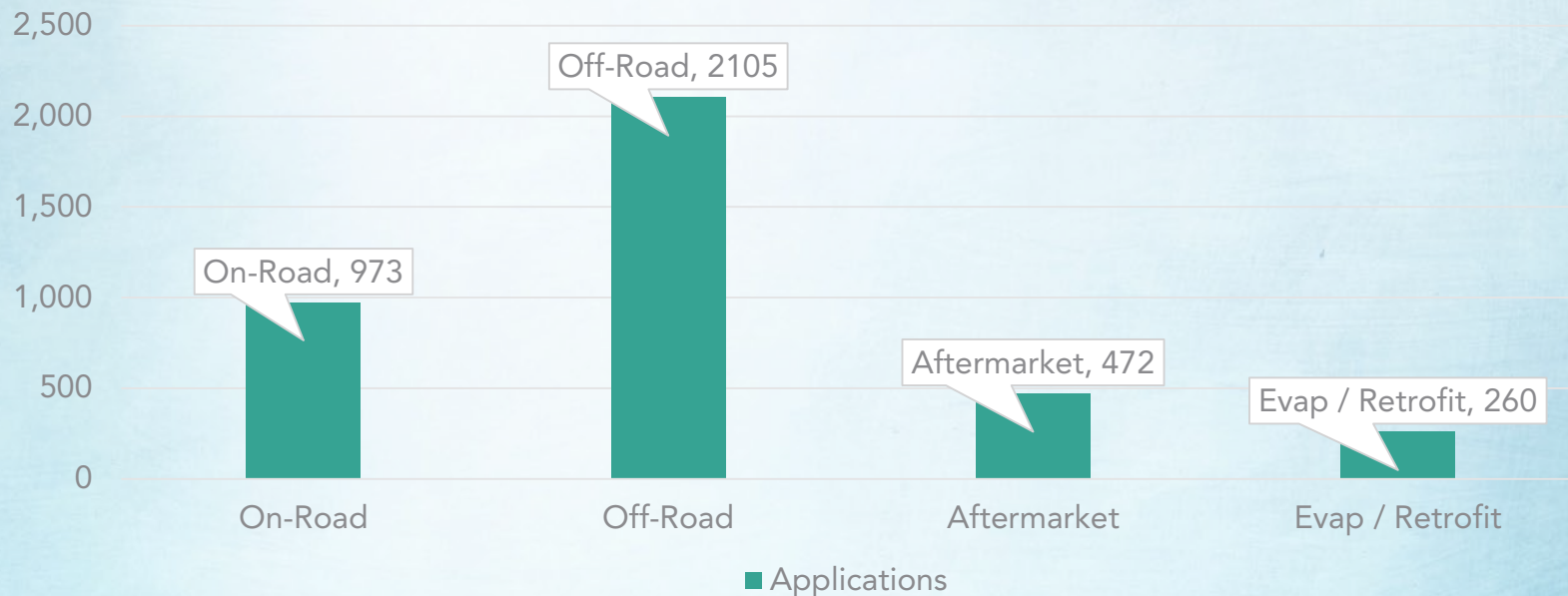


Mobile Source Process: How to get an EO



Activity by Category

Applications received in 2019



Mobile Source Process: EO Issued!

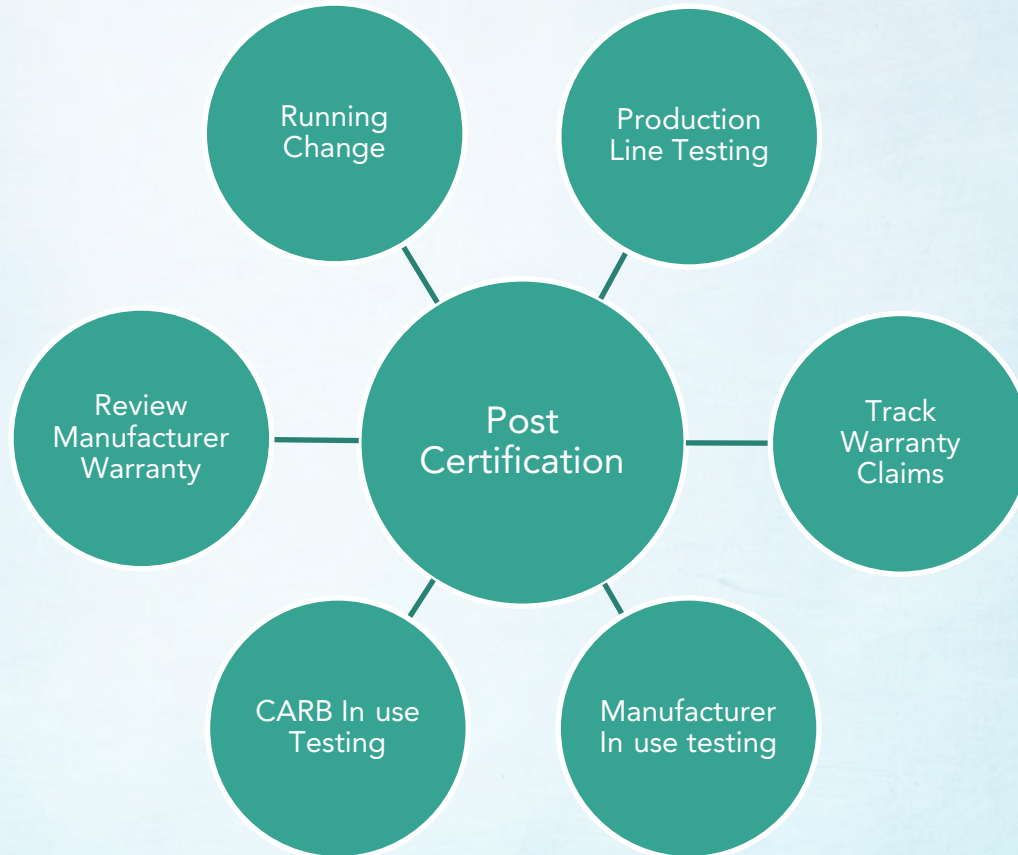
Once Executive Order issued:

- Vehicles, engines legal for sale
- Aftermarket components and systems legal for sale
- Evaporative emission component legal for use in equipment



Approved
for Sale

Mobile Source Process: After the EO



In-Use Compliance Program

Two Paths

1) Manufacturer run in-use testing



If Vehicles are
non-compliant

Fix issues found,
recall or provide
extended warranty

2) CARB tests manufacturers engines/vehicles

Identifies vehicles
with potential
issues, and
procure 10 well
maintained

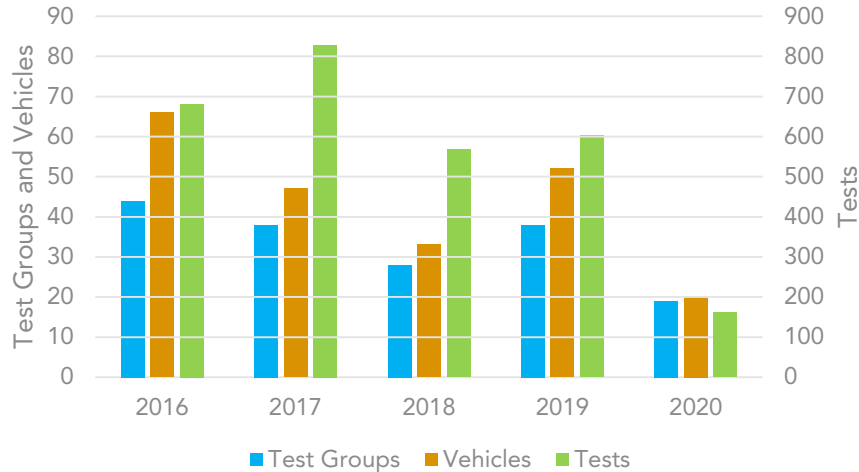


If Vehicles are
non-compliant

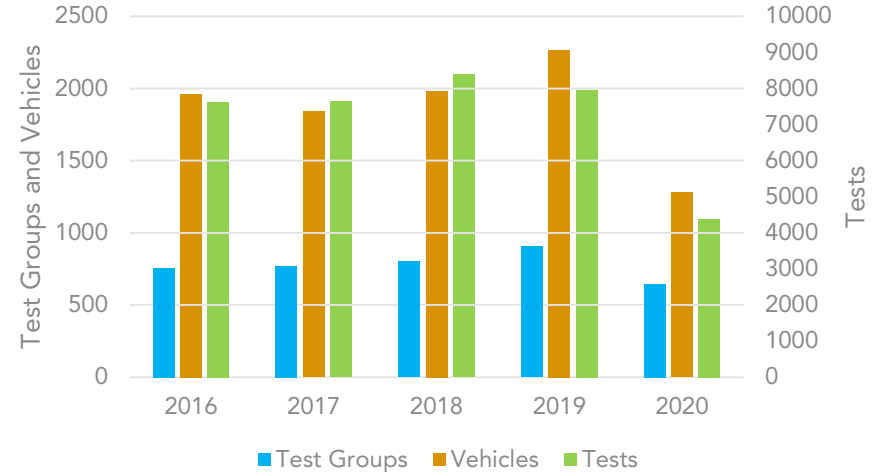
CARB informs
manufacturer that
needs to fix issues
found, recall, or
provide extended
warranty,
or Consent Decree

Light Duty In-Use Compliance Accomplishments

Light Duty In-Use Compliance Program
CARB-run program



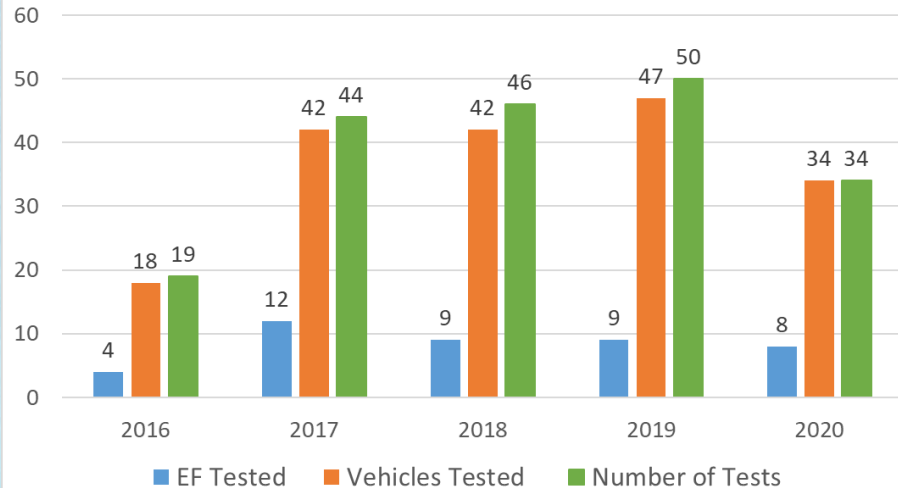
Light Duty In-Use Verification Program
Manufacturer-run program



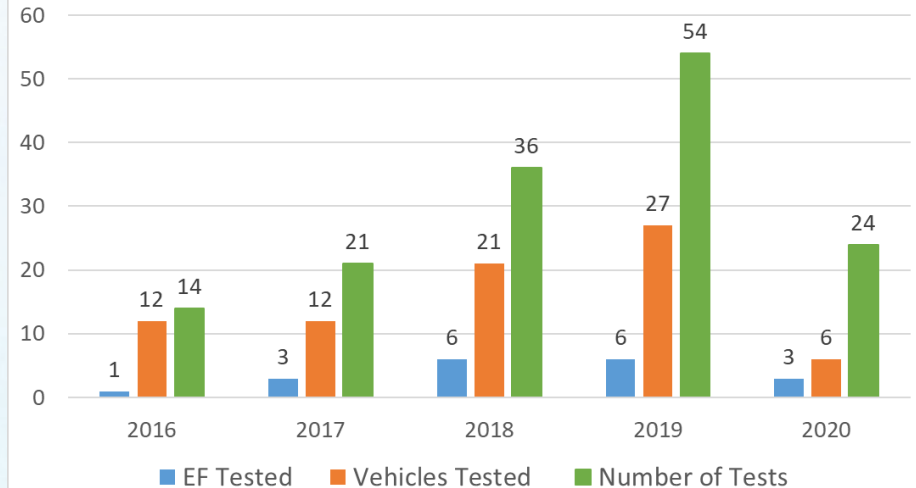
Test Results have lead to the recall of 200,000 vehicles in CA and 2 million vehicles nationwide over the last 5 years.

Heavy Duty In-Use Compliance Accomplishments

Heavy Duty In-Use Testing Program
Manufacturer-run program



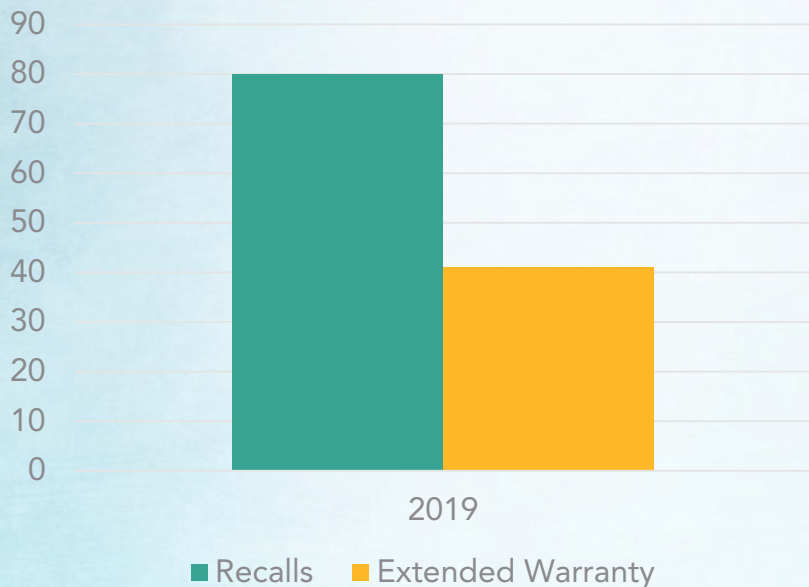
Heavy Duty In-Use Compliance Program
CARB-run program



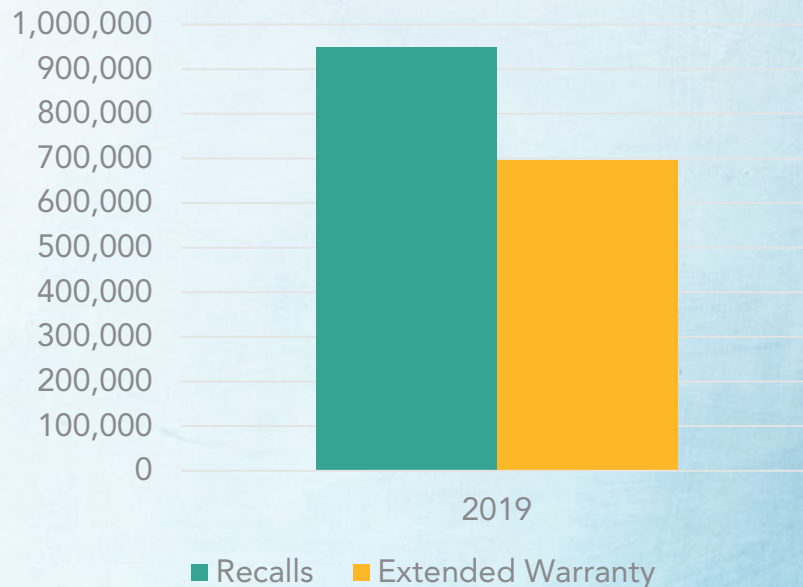
Test results have lead to recall of nearly 50,000 trucks

On-Road Warranty Reporting Program

Number of Corrective Actions



Number of Vehicles Affected



Lab Audits and Field Operations

- Ensure manufacturer and contract laboratory equipment comply with regulatory specifications
- Verify test vehicles or engines are prepared and treated consistently with regulatory procedures
- Field personnel:
 - Conduct vehicle and equipment surveys
 - Review dealership records

CARB Laboratory Testing



Heavy-Duty In-Use Compliance Program Testing

Portable
Emissions
Measurement
System

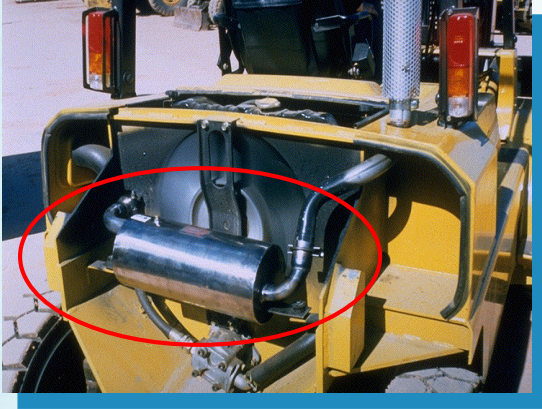


Laboratory Testing

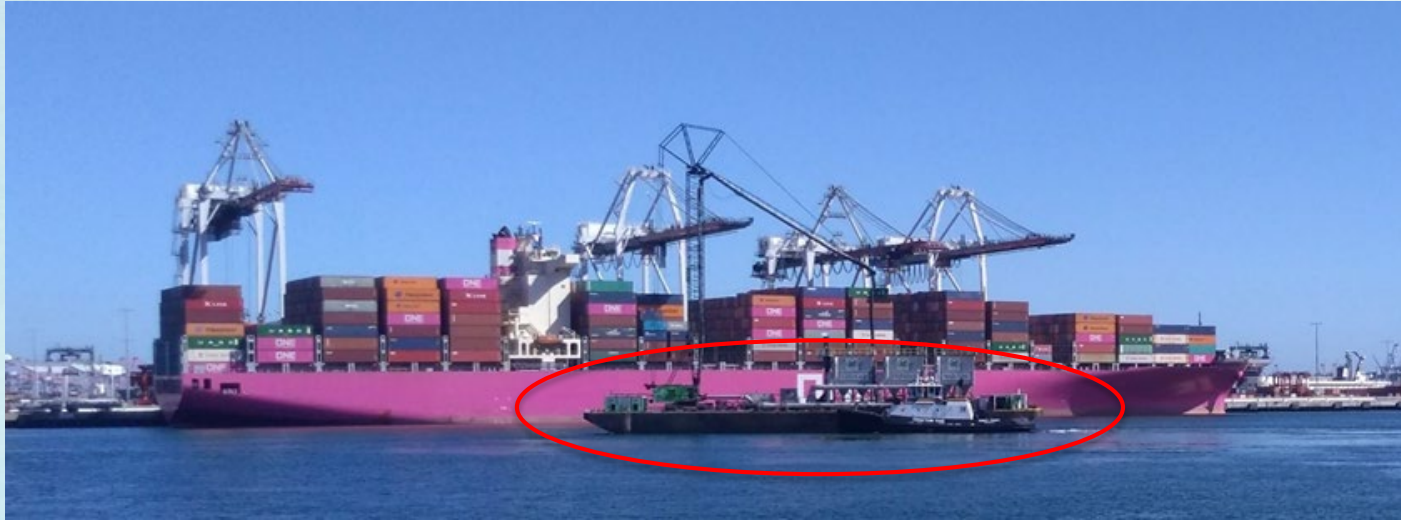
Evaporative Emissions (SHED) Testing



Retrofit Verification Program



At-Berth Capture and Control



Mobile Source Compliance Helps Ensure Clean Air





Proposed Regulations for the Mobile Source Certification and Compliance Fees

April 22, 2021

Overview

- Authority/Legislation
- Fee Development
- Fees Categories/Total Collected
- Payment Process
- Remaining Industry Concerns

Background **Legislation**

Current On-Road Vehicle/Engine Certification Fee

Health and Safety Code 43019

- Established in 1988
- Schedule of fees for the certification of motor vehicles and engines sold in CA
- Fee capped at \$4.5 M with annual adjustments by California Consumer Price Index [CPI]

Then vs Now

1990

- First certification fee
- On-road basic exhaust and evaporative standards
- 430 Executive Orders issued

Now

- More complex standards and requirements
 - ✓ Multiple test cycles, OBD, AECD reviews . .
- Off-road engine and other categories now included
- Over 3800 Executive Orders issued, and still growing

Impact of Growth on Program Costs

- Current fee only provides for:
 - One-third of CARB's on-road costs
 - One quarter of CARB's total costs
- Remaining costs covered by other state funds
- Recent legislation establish regulations to recover greater portion of costs.

Legislation Updates

- Senate Bill 854 (2018)
 - New HSC 43019.1
 - Establish fees for off-road and other fee categories
 - Establish Certification and Compliance Fund (CCF)
- Senate Bill 85 (2019)
 - Removed cap on existing on-road fees
 - Fees deposited into CCF

Mobile Source Certification and Compliance Fee

**Scope, CARB Program Costs and
Fees Development**

Stakeholder Participation

| Workshops | April 2019, November 2019, February 2020, July 2020, November 2020 |
|--|---|
| Associations | Alliance of Automotive Manufacturers Association of Global Automakers, Inc Manufacturers of Emission Control Association Motorcycle Industry Council, Inc. National Marine Manufacturers Association Outdoor Power Equipment Institute Portable Fuel Container Manufacturers Association Portable Generator Manufacturers' Association Specialty Equipment Market Association Truck and Engine Manufacturers Association |
| Association and industry member meetings | Multiple, extended public process timeline to consider COVID impacts |

Scope

Mobile Source Certification Topics

| Topic | Topic |
|---|---|
| New Cars, Light/Medium/Heavy-Duty Vehicles/Engines | New Small Off-Road Spark - Ignition Engines/Equipment |
| New Street-Use Motorcycles | New Spark - Ignition Marine Engines/Watercraft |
| New On-Road Heavy-Duty Exempt Engines | Portable Fuel Containers (PFCs) Certified For Use In California |
| New Federal AB965 Cars & Light-Duty Trucks | Evaporative components for Spark-ignited Marine Water Craft |
| Phase II GHG Vehicle/Zero-Emission Powertrain | Small Off-Road Engines - Evaporative Components |
| GHG Trailer | Alternative Fuel Retrofit Certification |
| GHG Aerodynamic Component | Experimental Permits |
| Fuel-fired Heaters | Aftermarket Part Exemptions |
| Electric Golf Carts | Aftermarket Fuel Tanks |
| New Off-Road Large Spark-Ignition Engines/Equipment | Aftermarket Critical Emission Control Parts for Highway Motorcycles |
| New Emission Compliant ("Green Sticker") Off-Road Motorcycles, All-Terrain/Utility/Sport Vehicles, Sandcars | Verification of Diesel Emission Control Strategies (On/Off Road, SS, Harbor Craft, TRU, RTG) for In-Use Diesel Engine Regulations |
| New Emission Non—Compliant ("Red Sticker") Off-Road Motorcycles & All-Terrain Vehicles | Alternative Control Technologies (e.g. Bonnets) verification/approval for At-Berth regulation |
| New Off-Road Compression - Ignition Engines | |

Activities Covered

- Labor, operational, equipment, and facility costs to confirm compliance:
 - Application review and approval
 - Testing
 - certification confirmation
 - manufacturer facility testing audits
 - in-use (emission control durability) requirements
 - Warranty and recall programs
- Does not include costs for enforcement, research, and regulation development activities

CARB Cost Analysis

- Staff labor, operational cost and equipment surveys based on 2018 information
- Equipment cost amortized over 10 years
- Facility costs based on lab testing facility space
- Equipment and facility cost adjusted to percent time used

Mobile Source Certification and Compliance

Annual Program Costs by Category

| Major Regulatory Groups | 2022 Estimated Cost of Program |
|-------------------------------------|--------------------------------|
| On-Road | \$36,200,000 |
| Off-Road | \$5,500,000 |
| Evaporative Components | \$400,000 |
| Aftermarket Parts | \$4,800,000 |
| Retrofits and At-Berth Technologies | \$1,500,000 |
| Total | \$48,400,000 |

Categories and Fee Types

- Fees at the time of application
- 35 regulatory categories organized into six groups

| | |
|---------------------------|-----------------------|
| On-Road Vehicles/Engines | Aftermarket Parts |
| Off-Road Vehicles/Engines | Retrofits |
| Evaporative Components | At-Berth Control Tech |

Fee Development

- Base Fee
 - CARB's average cost per application
- Considerations:
 - Business Impacts/Vehicle/equipment pricing
 - Company size
 - California production
 - Discounts for simpler applications
 - Zero emission technology, carry-over applications

Aftermarket Part Fee Exception

| Fee Type | Aftermarket Parts (General, Fuel Tank, Motorcycle Critical Emission Control Part, Catalytic Converter, Diesel Particulate Filters) |
|--------------------|--|
| Base Fee | Business Consideration Adjustment |
| Low Cost Fee Types | Small business, Simple applications |

Retrofit and At-Berth Fee Exceptions

- Manufacturers requested to reduce the initial cost burden
 - Spread out cost over the types of regulatory activities.
- Fee categories set by regulatory activities and staff resources required
- Small business low cost category

Fees Start Dates

- Start fee implementation early 2022
 - includes most of 2023 model year applications
- Total fees collected: \$20.6 M in 2022 to \$45.5 in 2031
 - Includes baseline revenues from current regulation

Fee Phase-in

| Calendar year/Model year | Percent of full fee |
|--------------------------|---------------------|
| 2022/2023MY | 50% |
| 2023/2024MY | 75% |
| 2024/2025MY | 100% |

- On-road fees increase with CPI starting in 2026 MY
- No phase-in for fees already significantly discounted fees.

Updated On-Road Program Fees

| Major Regulatory Groups | Range of Fees | Est. Total 2024 Fees Collected |
|------------------------------------|-----------------------|--------------------------------|
| On-Road Program Total ¹ | | \$32,700,000 |
| Light/Medium Duty | \$11,627 to \$46,509 | \$21,400,000 |
| Heavy-Duty Engine | \$10,611 to \$121,265 | \$5,300,000 |
| Otto-cycle | \$10,611 to \$42,443 | - |
| Compression Ignition | \$30,316 to \$121,265 | - |
| Heavy-Duty Vehicle | \$3,734 to \$14,935 | \$2,600,000 |
| Motorcycle | \$872 to \$17,447 | \$2,500,000 |

¹Other minor fee categories included in fee total

New Fee Categories

| Major Regulatory Groups | Range of Fees | Est. Total 2024 Fees Collected |
|--|---------------------|--------------------------------|
| New Program Fee Total | | \$7,300,000 |
| Off-Road engines, vehicles and equipment | \$261 to \$4,511 | \$5,100,000 |
| Evaporative components | \$1,707 to \$6,827 | \$350,000 |
| Aftermarket parts | \$500 to \$10,000 | \$750,000 |
| General, motorcycle | \$500 to \$1000 | - |
| Catalytic converters | \$5,000 to \$10,000 | - |
| Retrofits and At-berth | \$1,524 to \$73,738 | \$1,100,000 |

Hourly Based Program Fees

| Fee | |
|-----------------------------------|-------|
| Fuel-fired heaters | \$293 |
| On-road heavy-duty exempt engines | \$98 |
| Experimental permits | \$195 |

CARB Cost Recovery

- Total Mobile Source Program Cost: \$48.4 million
 - Current Fees collected: \$10.0 million
 - Total Est. Fees collected in 2024: \$40.0 million
-
- Over 80% Cost Recovery

Standardized Regulatory Impact Assessment (SRIA)

- Cost of the regulation is \$2.2 M in 2022; \$35M in 2031
- Minimal to no impacts to business
 - Most manufacturers pass costs through to purchaser
 - Job growth change is <0.01 percent of baseline
 - No impact on creation or elimination of businesses, adverse impacts to business or business ability to compete
- Average annual cost per California household: \$1.24

Benefits

New Fiscal Revenue

- Additional cost recovery over current regulation
- Mobile Source Programs supported by the proposed fee regulation protect public health and safety, and the environment, by reducing greenhouse gas emissions, oxides of nitrogen, diesel particulate matter, and other air contaminants.

Mobile Source Certification and Compliance Fees **Payment Process**

Fees to be submitted at the time of application

- Fee received = Application review begins
- Corrected payment will be due before new applications will be processed if limits for volume discounts exceeded.

Refunds Allowed based on Withdrawal Dates

| Criteria | Fee Refund |
|--|------------|
| Application withdrawn: 0-15 days of payment or CARB notification | 100% |
| Application withdrawn: 16-45 days of payment or CARB notification | 50% |
| No Application received | 100% |
| Application withdrawn: 46 or more days of payment or CARB notification | none |

Light-Duty Vehicle Comments and Staff Responses

- Replica Car
 - Adjusted fees to match work effort
 - 15 day changes proposed
- Low Volume Models
 - Higher cost per vehicle impact
 - Typically higher cost vehicles
 - Costs to CARB don't vary with product volume
 - No changes proposed

Motorcycle

Comments and Staff Responses

- MIC and industry concerned about the high base cost for application (\$17,447), especially for entry level (low cost) motorcycles.
- Staff Response
 - Low volume manufacturer discount already included
 - Propose 15-day changes to expand special low cost category from 3 to 6 low sale engine families (\$872)

Low Cost Fee Type

Comments and Responses

- Motorcycle, recreational marine requesting to broaden partial-carry over definition (to reduce fee amounts)
- Staff response:
 - No further reduction in staff evaluation workload for other application documents
 - Would further diminish recovery of CARB costs
 - No changes proposed

Small Off-Road Equipment Comments and Responses

- OPEI concerned about impact of future regulations on fees.
- Staff response:
 - Fee based on average CARB cost per certification family for current regulations.
 - Application fee will not change under modified SORE regulations without Board action.

Staff Recommendation

- Adopt the proposed resolution and staff's proposed regulations for the Mobile Source Certification and Compliance Fees
- Direct staff to further develop 15 day changes for replica/kit car fees.