

Proposed Amendments to the Truck and Bus Regulation



April 24, 2014

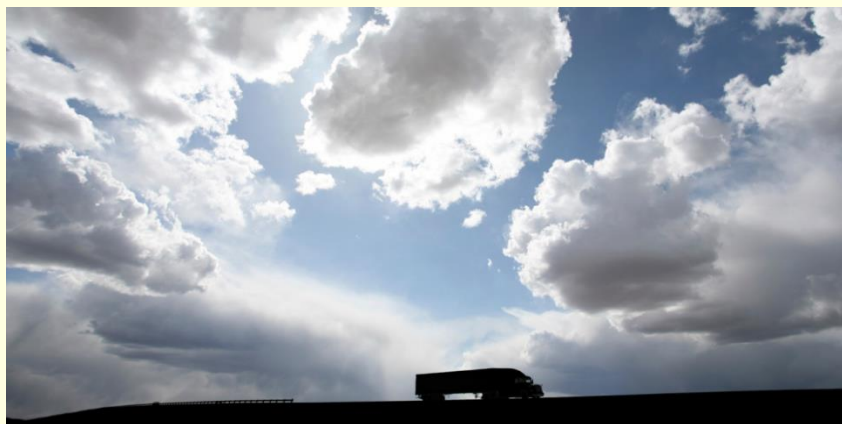
California Environmental Protection Agency



Air Resources Board

Presentation Summary

- Overview
- Proposed amendments
- Impacts
- Implementation and enforcement plans
- Diesel PM filter investigation
- Recommendations



Trucks Are Major Source of Emissions

- Single largest contributor to diesel PM exposures
 - >40% of statewide emissions
 - The dominant contributor to particulate emissions near transportation corridors
 - Major impact on disadvantaged communities
- Important source of NOx emissions
 - 30% of mobile source emissions
 - Reductions necessary to meet air quality standards

Truck and Bus Regulation Overview

- Regulation adopted in December 2008
- Key strategy to meet ozone, PM standards
 - Largest share of reductions expected from trucks
 - Approved by EPA, now legally binding
- Achieves 85% reduction in diesel PM by 2020
 - Diesel PM is a toxic air contaminant and carcinogen
 - Meets diesel risk reduction plan goal
- Reduces premature mortality and other related health effects caused by PM exposure

Truck and Bus Regulation Summary

- Lighter vehicles
 - 2010 Engines 2015-2023
 - No PM retrofit filters
- Heavier vehicles
 - PM Filters 2012–2014, then
 - 2010 Engines 2020-2023
- PM Filter phase-in
- Small fleet option



Flexibility in the Regulation



Low-Use Agriculture

- Compliance 2017 or 2023



Log Truck Phase-In

- Upgrade to 2010 engines 2014-2023



NOx Exempt Areas

- Filter only phase-in 2014-2016



Low-Mileage Construction

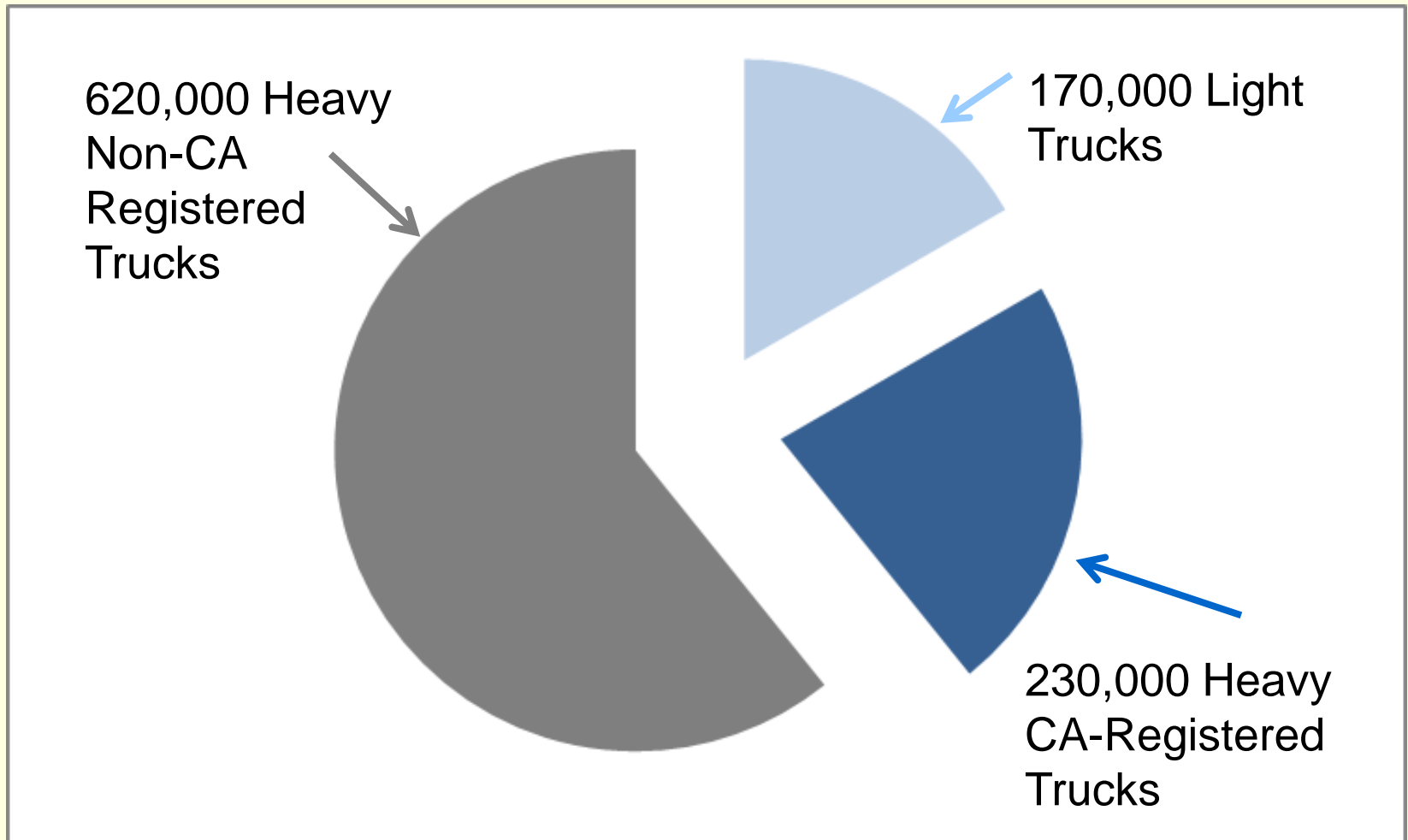
- Filter Phase-in 2014 to 2016



Low-Use Exemption

- 1,000 miles per year
- 100 hours per year if stationary work

Regulation Affects One Million Trucks



Staff Response to October 2013 Board Meeting

- Issued regulatory advisory in November
 - Recognize good faith actions to achieve compliance
- Conducted extensive public process to understand stakeholder concerns
- Developed amendments to address stakeholder concerns

November 2013 Regulatory Advisory

- Provided additional time for owners to complete good faith compliance efforts by July 1, 2014
- Allowed use of new flexibility provisions that will be considered by the Board
- Required reporting by January 31, 2014

Extensive Public Process

- Five workshops across State in December
- Four town hall meetings
- Meetings with companies, trade groups, and industry organizations
- On-going compliance assistance
 - >400 calls per day for four months

Key Concerns of Stakeholders

- Some fleets financially unable to comply
 - Economic recovery has not been even
 - Some fleets cannot finance compliance
- Incentive funding not accessible to some
- Additional flexibility unfair to compliant fleets
- Durability and performance of original equipment and retrofit diesel PM filters

Goals in Developing Amendments

- Protect emissions benefits
- Provide lower-cost compliance options to impacted fleets
- Expand incentive funding opportunities
- Recognize fleet owners that made early investments

Amendments Summary

- Extend PM filter requirement dates in rural areas with cleaner air
- Provide additional time and incentive funding opportunities for small fleets
- Offer new compliance option for owners that cannot currently afford compliance
- Extend compliance schedules for lower-use trucks
- Recognize owners that already complied

Extend Requirements in Rural Areas with Cleaner Air

- Expand definition of “NO_x Exempt” areas
- PM filter requirements
 - Phase-in 2015 - 2020
 - One-truck owner would have until Jan. 1, 2017
 - Could be used for lighter or heavier trucks
- No truck replacements required



Extend Small Fleet Option

- Additional time for small fleets statewide
 - More opportunity for incentive funding
 - Upgrade with lower-cost used trucks

Small Fleet Option	Existing Schedule	Proposed Schedule
First Truck	January 1, 2014	no change [^]
Second Truck	January 1, 2015	January 1, 2017*
Third Truck	January 1, 2016	January 1, 2018

[^] Operators using good faith extensions have until July 1, 2014

* 15-day change from 2016 to 2017

Proposed 15-Day Change - Minor Emissions Impact Only in 2016

- Incentives may offset potential emissions impacts

Reduced Emissions Benefits in 2016		
Air Basin	PM*	NOx*
	(tons per day)	
South Coast	0.1	1.4
San Joaquin Valley	0.1	1.4
San Francisco Bay Area	<0.1	0.7
San Diego	<0.1	0.3
Sacramento	<0.1	0.4
Statewide Total	0.4	5.0

New Option for Owners that Cannot Obtain Financing

- Denied a loan
 - For PM requirements
 - May claim up to 3 vehicles

- Commit to upgrade truck by 2018
 - 2010 engine model required

- Opt-in by January 31, 2015

Planned 15-Day Changes to Improve Enforceability

- Must report by January 31, 2015
- Document loan information on ARB form
 - Truck/retrofit information
 - Loan terms; attach loan denial letter
 - CalCAP or chartered lender information
 - Signed by owner and lender under penalty of perjury
- All owners must meet minimum application requirements
 - Trucks claiming good faith must reapply

New Option for Low- Mileage Work Trucks

- Up to 20,000 miles per year
- Applies to all trucks except semi-tractor or truck/trailer combinations

Compliance Date	Existing Low-Mileage Construction Truck PM Filter Schedule (percent of fleet)	Proposed Low-Mileage Work Truck PM Filter Schedule (percent of fleet)
January 1, 2014	33%	33%
January 1, 2015	66%	40%
January 1, 2016	100%	60%
January 1, 2017		80%
January 1, 2018		100%
January 1, 2020	Subject to engine model year schedule	Subject to applicable engine model year schedule

Expand Agricultural Vehicle Extension

- Extend ag mileage extension past 2017
 - Up to 15,000 miles per year 2017 - 2020
 - Up to 10,000 miles per year 2020 – 2023

- Add cattle livestock trucks to the specialty agricultural truck definition

Expand Low Use Exemption

- Include vehicles that operate less than 5,000 total miles per year
 - Sunset in January 2020
- Retain limit of 1,000 annual miles in CA as permanently exempt
- Remove stationary hour limits for all vehicles

Smoothing Compliance

- Limit on upgrades to 2010 engines
 - No more than 25% of fleet in one year (or 2 trucks)
 - Applies to lighter and heavier trucks
 - Helps fleets with high percentage of older trucks
- Provide new option for heavy cranes



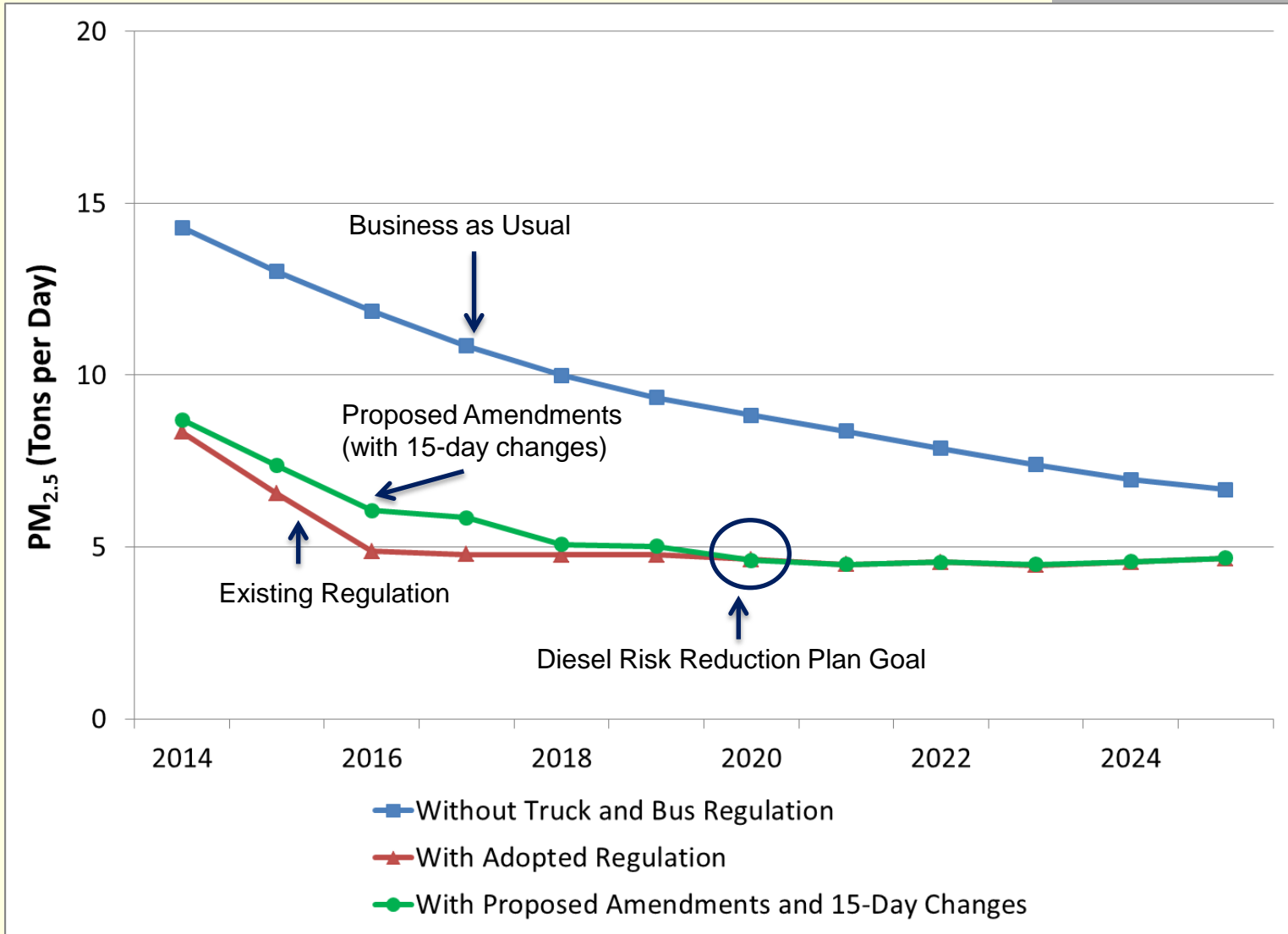
Recognizing Actions Already Taken

- Credits delay compliance obligations
 - Fleets that made early investments or retired vehicles
- Amendments
 - Extend fleet credits to 2018
 - Add new credit for advanced technology purchase
 - Prolong PM retrofit use to 2023
 - Allow vehicle with a recalled retrofit PM filter to operate for 5 years from date of recall
- Extending credits rewards fleets that took early steps to comply

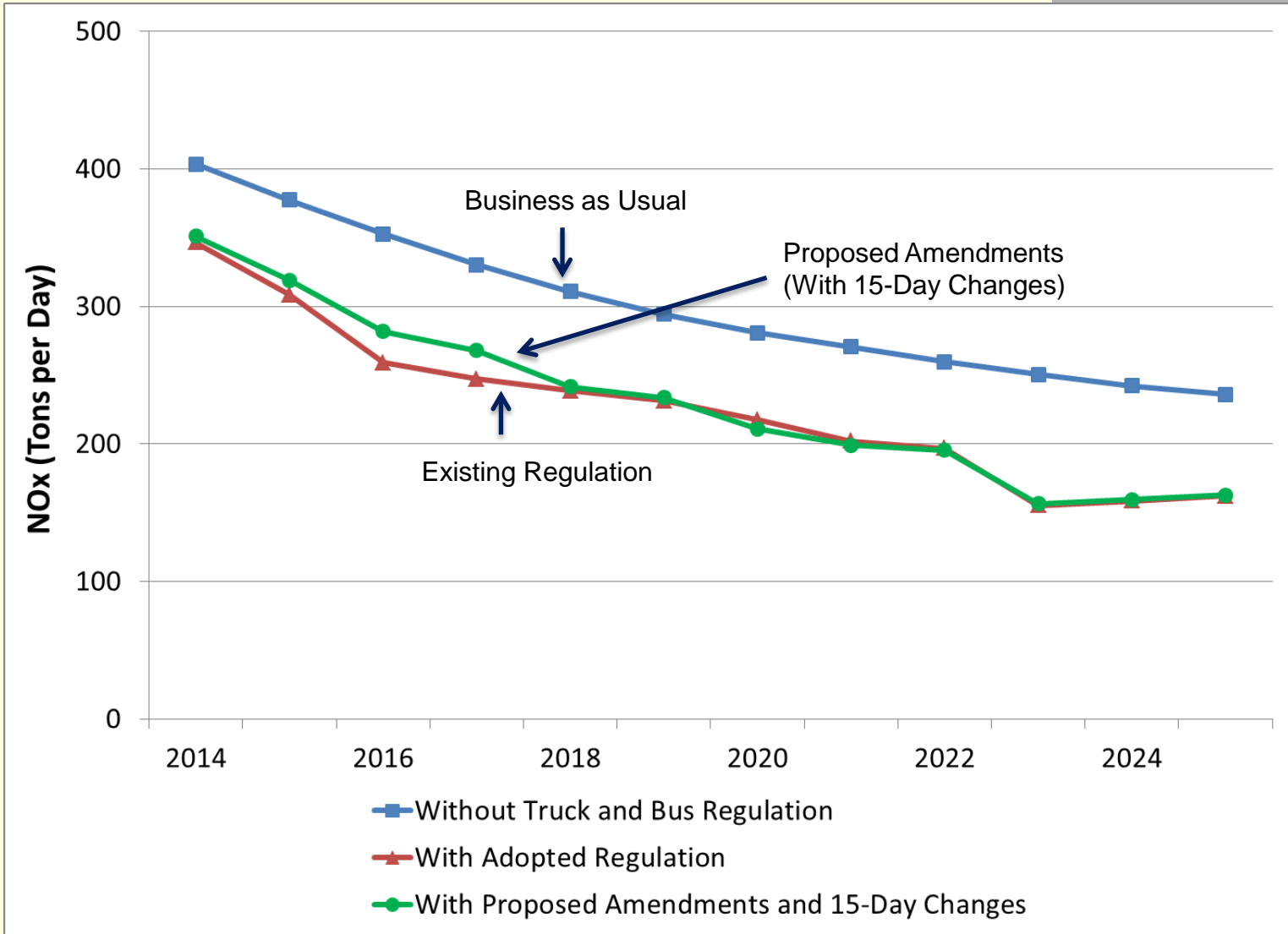
Significant Cost Savings While Better Ensuring Benefits

- Compliance costs reduced \$400M
 - 20% reduction
- Attains 93% of cumulative benefits
 - NOx and PM
- Similar level of mortality benefits
 - ~3,500 premature deaths avoided
- No significant impact on risk reductions

Amendments Meet PM Emissions Goals



Amendments Meet NOx Emissions Goals



Regulation Continues to Meet SIP Commitments

- South Coast PM_{2.5}
 - Meets annual standard
 - Continued reductions needed for 24-hour standard
- San Joaquin Valley PM_{2.5}
 - Meets targeted emission levels in attainment demonstration
- Provides reductions for attainment in 2023
- Meets reasonable further progress targets

Additional Incentive Funding Opportunities

- Small fleets
- Fleets using flexibility provisions
- Significant funding available for small fleets
 - Prop 1B
 - Carl Moyer
- Guidelines changes planned

Compliance Assistance for Fleets Will Continue

- Issue new advisory regarding approved amendments
- Update compliance tools, training courses, materials
 - Spanish
 - Out-of-state
- Integrate amendments into current outreach contract

Enforcement Remains a High Priority for Level Playing Field

- 80% compliance rate
- Targeted enforcement
 - DMV data: check for non-compliance
 - Fleet audits: follow-up with fleets that are making good faith efforts, non-compliant, or inactive
- Continue inspections at entry points into State
- Coordinated USEPA/ARB fleet investigations
- Enforcement actions
 - Compliance is first priority
 - Can include penalties

Stakeholder Concerns with PM Filters

- Poor performance
- Vehicle downtime
- Durability

Initiated Investigation

- Warranty and vehicle testing data
- Extensive field study
 - Roadside inspections
 - Fleet interviews
 - Dealer / Installer interviews
- Investigation on-going
- Report under development

Investigation Summary to Date

- Some fleet owners experiencing vehicle performance issues
 - Result of engine component malfunctions
- Engine issues impact PM filter performance
- PM filters are working as designed
 - Both retrofit and factory installed
- Staff will work with stakeholders to help resolve engine issues

Plan to Address Engine Issues

- Focus on preventive maintenance
 - Define best practices
 - Expand outreach to fleets on maintenance issues
 - Incorporate into training programs
- Evaluate potential program improvements
 - Inspection and maintenance
 - Certification and in-use compliance
- Final report and recommendations this Fall

Amendments Better Ensure Emission Benefits

- Protect public health
- Meet SIP obligations
- Balance compliant and future compliant fleets
- Reduce compliance costs
- Increase opportunities for incentive funding

Recommendations

- Approve staff proposal with planned 15-day changes
- Focus on implementation and enforcement