State and Local Mobile Source and Fuel Standards

A Briefing for the National Research Council

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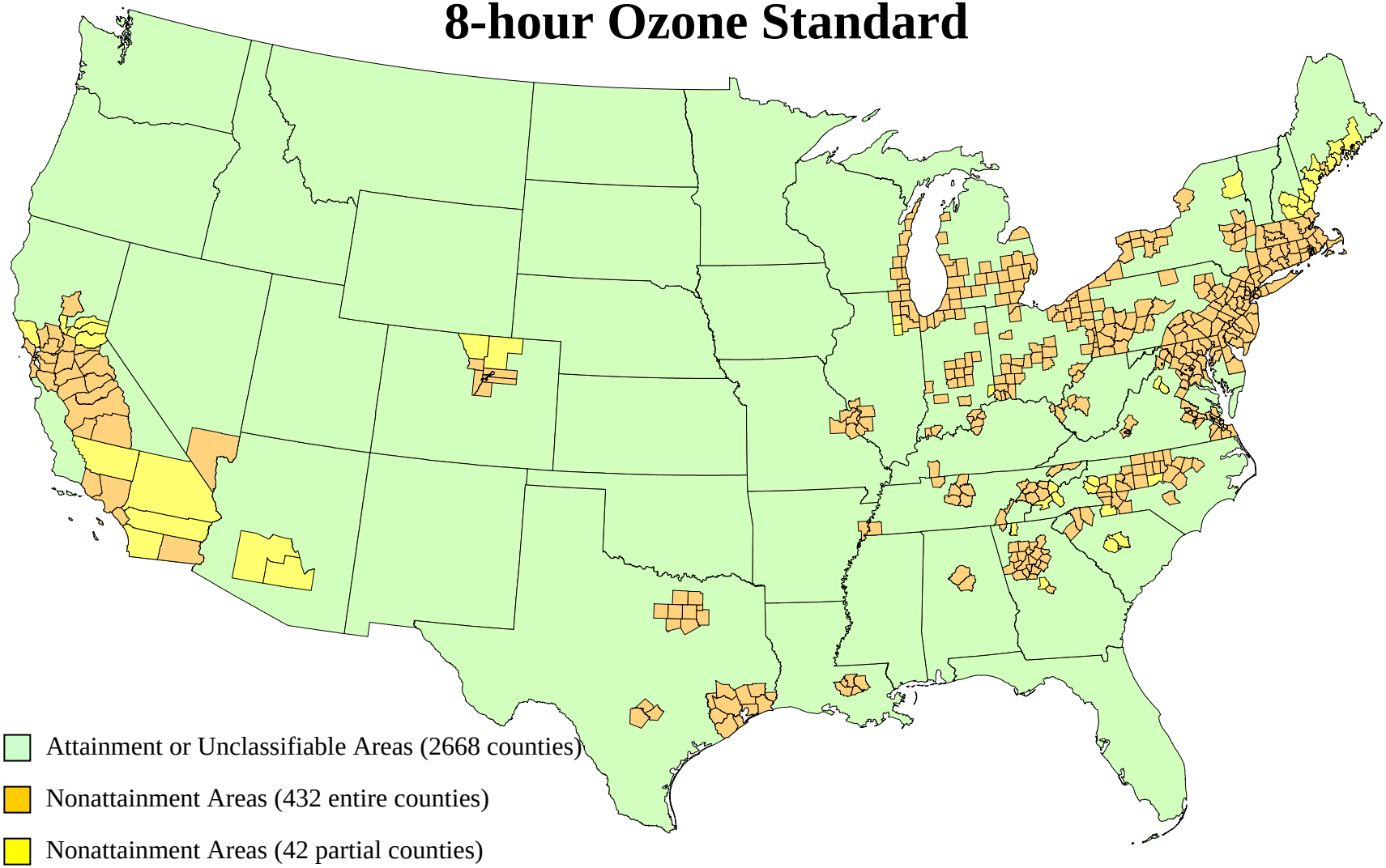
What I Will Cover

- Who STAPPA and ALAPCO Are
- Extent of our Air Pollution Problem
- Constraints/Opportunities to Set More Stringent Limits
- Why These Authorities are Necessary
- History of States' Regulatory Efforts

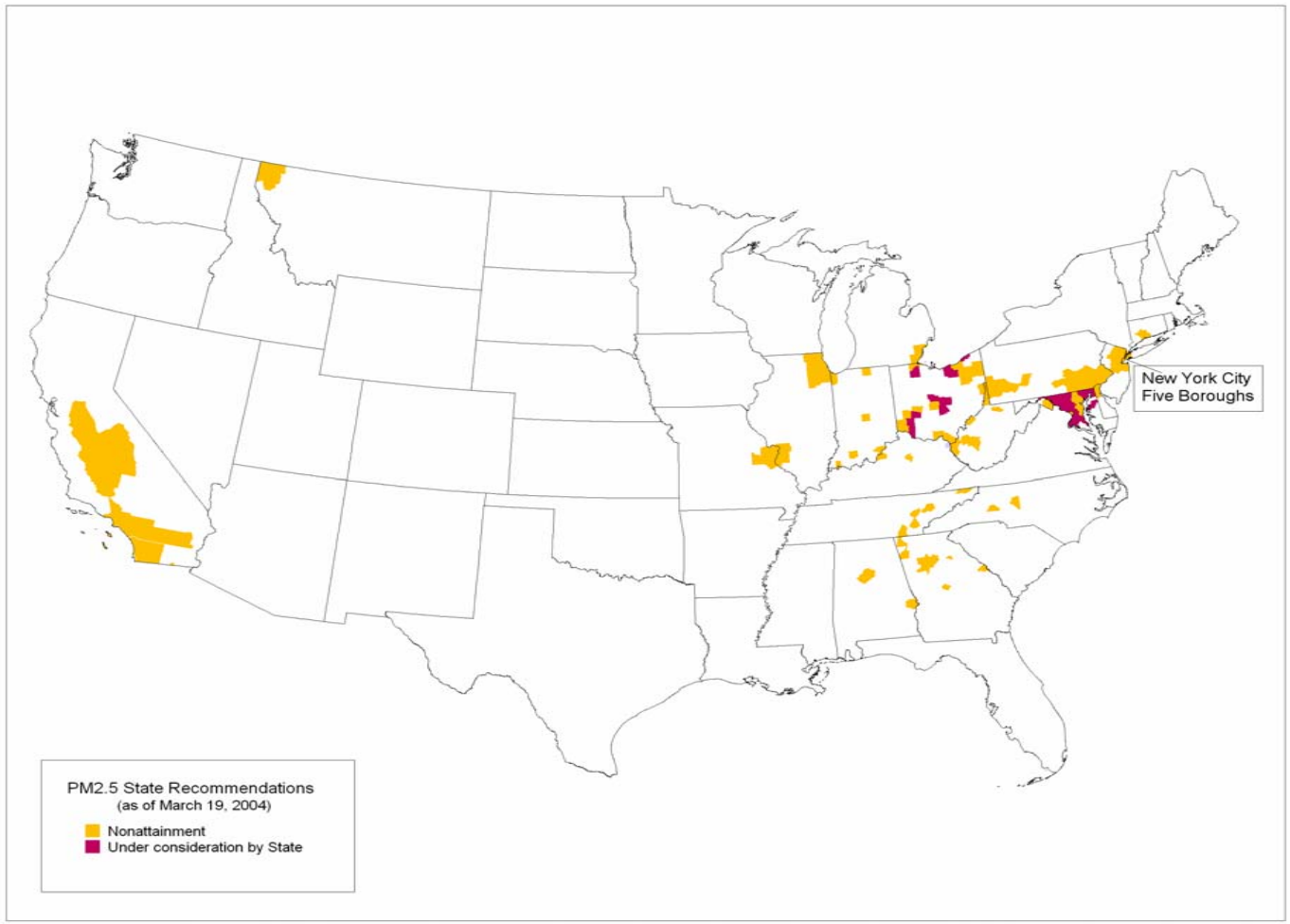
Our Nation Faces a Pervasive Air Quality Problem

- 474 counties violate the federal 8-hour ozone standard – 159 million people affected
- >300 metropolitan areas expected to violate the $PM_{2.5}$ standard – 105 million people affected
- Almost every person in the country exposed to toxic air pollution exceeding federally acceptable levels; millions exposed to cancer risks greater than 1 in 10,000
- Mobile sources are a dominant cause

Attainment and Nonattainment Areas in the U.S.
8-hour Ozone Standard



State Recommendations for Fine Particle Designations



Prohibitions in CAA Restricting States' Ability to Set Standards

- Section 209(a) of CAA prohibits states from setting new vehicle emission standards
- Section 209(b) exempts states that adopted standards before 3/66—i.e., California—from the prohibition
- Section 211(c)(4) restricts states in setting their own fuel standards

States Can Still Adopt Their Own Standards

- Section 177 – allows states with nonattainment areas to adopt California's motor vehicle standards;
- Section 209(e)(2)(B) – allows states with nonattainment areas to adopt California's nonroad vehicle and engine standards
- Section 211(c)(4)(C) – allows state regulation of fuels through SIPs if fuel regulation is necessary for attainment

Why Is This Authority Necessary?

- To allow states for which federal standards are not sufficient for attainment to pursue additional emission reductions
- To fill “gaps” in federal mobile source regulations
- To serve as a backstop for federal rules facing opposition
- To allow areas to implement fuel programs that may be more cost effective for an area than the federal program

State Analysis Process Similar to Other Control Measures

- Identifies largest sources of emissions
- Examines costs and cost-effectiveness of control measures for these sources; also utilizes the analyses conducted for the California rulemaking
- Prioritizes sources to be controlled
- Conducts public hearing, adheres to appropriate administrative processes
- Adopts appropriate legal/regulatory authority

Important Examples of State-Adopted Vehicle Emission & Fuel Standards

- California Low-Emission Vehicle (LEV) Program
- California LEV 2 Program
- Multi-State Clean Diesel Initiative (“NTE”)
- 2007 Diesel Truck Standards
- States’ Fuel Volatility Limits (RVP)
- Federal RFG vs. “Boutique Fuels”
- Personal Watercraft
- “Bond Amendment” on Small Nonroad Engines

California Low Emission Vehicle (LEV) Program

- In 1990, California adopted its LEV program, requiring controls more stringent than the federal government
- Between 1992-1994, New York, Massachusetts, Maine and Vermont opted into California's LEV program (section 177 of CAA)
- In February 1994, northeastern states petitioned EPA to require "OTC-LEV" throughout region
- Negotiation ensued between industry, states and EPA, leading to adoption of a voluntary National LEV (NLEV) program, in lieu of California's program
- NLEV applied to northeastern states in 1999, and nationally in 2001

LEV 2 Program

- Represents next generation of California cars, cleaner than federal “Tier 2” program, which followed NLEV
- Several states have opted in--New York, Massachusetts, Maine, Vermont; Rhode Island, Connecticut and New Jersey; others are considering
- Several have adopted California’s ZEV mandate
- Benefits in Northeast are significant—15 % reduction in VOCs, 23 % reduction in toxics beyond Tier 2

Multi-State Clean Diesel Initiative

- STAPPA and ALAPCO facilitated multi-state diesel truck initiative to fill gap in in federal law
- 13 states adopted STAPPA/ALAPCO model rules based on California's testing procedures (so-called "Not-to-Exceed" limits); affects MYs 2005-2006
- Over 1/3 of national truck sales affected
- Emissions benefits equivalent to removing 30 million cars from the roads

NTE States

- California
- North Carolina
- New Jersey
- Maryland
- Delaware
- D.C.
- Georgia
- Massachusetts
- Maine
- Texas
- Rhode Island
- New York
- Pennsylvania
- Connecticut

2007 Diesel Truck Standards

- STAPPA and ALAPCO multi-state diesel truck effort, replicating NTE initiative
- State and local air agencies strongly support EPA's 2007 diesel truck rule, but rule is under attack
- States preparing to use authority to pursue adoption of CA's 2007 diesel truck standards, which mirror federal standards
- To serve as a backstop in the event the federal 2007 diesel truck rule is weakened or delayed

States' Fuel Volatility Limits (RVP)

- In 1989, EPA approved summertime RVP limits for several northeast states and Dallas-Fort Worth, more stringent than federal rules;
- Industry testified at states' public hearings that costs would rise significantly and gas shortages would result;
- Impacts were negligible;
- EPA subsequently adopted more stringent volatility limits for most of the country

Federal RFG vs. “Boutique Fuels”

- CAA required federal reformulated gasoline in 9 most polluted areas; others could opt in
- Even though RFG rules were product of a successful regulatory negotiation, many refiners opposed other states opting in
- Refiners lobbied states to adopt state-specific “boutique fuels,” with lower volatility, instead of federal RFG; claimed “boutique fuels” were more cost-effective
- Now, same refiners are complaining of proliferation of “boutique fuels,” as well as their high costs

Personal Watercraft

- In 2000, NY adopted CA's standards for gasoline-powered jet skis
- Will result in engines three-times cleaner than those required under federal standards

Bond Amendment on Small Nonroad Engines

- FY03 appropriations bill called for study of how states set emission standards
- FY04 appropriations bill amended CAA to remove state authority to adopt CA's small nonroad gasoline engine standards
- Affects 120 million engines with emissions equivalent to those of tens of millions of cars
- Amendment requires EPA to set standards for the covered engines, but these standards may not be sufficient for all states

Potential Consequences of Preemption

- States forced to examine politically unpopular, less cost-effective measures
- Millions of dollars of states' highway funds in jeopardy
- States required to meet more stringent offset requirements, like a construction ban
- Continued unhealthful air quality

Conclusions

- States have a daunting task of attaining/ maintaining health-based air quality standards, meeting other air pollution control obligations
- Will need every regulatory tool possible to achieve standards in most cost-effective manner
- States' strategies will differ; not all problems are alike
- Motor vehicles and fuels are a dominant source of emissions
- Imperative that states/localities' authorities not be restricted beyond existing CAA

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