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State and Federal Standards for Mobile Source Emissions

**Pre-release Briefing
David Allen, Committee Chair
March 15th, 2006**

Context

- Mobile sources of air pollutants, including emissions from passenger vehicles and moveable engines, continue to be a significant fraction of emissions
- While states regulate many air pollutant sources, federal regulations preempt standards on new mobile sources (1967 Clean Air Act preempts state regulations for on-road vehicles)
- California Exemption
 - §CA's experience with automobile control
 - §Extreme air quality problem
 - §Serve as a laboratory for innovation
- “Rather than being faced with 51 different standards, as they had feared, or with only one as they had sought, manufacturers must cope with two regulatory standards under the legislative compromise embodied in section 209(a)” *Engine Manufacturers Association vs. EPA, DC Circuit Court of Appeals, 1996*

Context

- 1977 Amendments allowed other states to adopt standards identical to California
- 1990 Amendments allow California to implement and other states to adopt some non-road mobile standards
 - § Lawn/garden equipment, off-road vehicles, recreational marine
 - § Regulations from locomotives, some agricultural engines continue to be preempted
- Bond Amendments

Task Statement/Work Plan

- Scientific and technical practices used by California in setting and by other states in adopting new mobile source emissions standards separate from EPA's
- Factors that cause states to move to more stringent emissions standards
- Direct and indirect impacts that state emissions standards have had on various factors, including compliance costs, energy consumption, air quality, and human health.
- Effects of over 30 years of experience California has in setting separate emissions standards, not only their direct impacts but also how California standards have affected Federal standards.

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Committee on State Practices in Setting Mobile Source Emissions Standards

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Scientific/Technical Practices – CARB and EPA

- Same motivation - attainment of air quality standards
 - Federal standards ensure some emissions reductions occur nationally/mobility does not undermine other air quality initiatives
 - California emissions standards set for worst polluted regions (LA area)
- Similar procedural steps leading to a regulation
 - § Need for new emissions standards
 - § Evaluation of potential control strategies
 - § Publication of proposed regulations/solicitation of public comments
- CARB standards require a waiver review by EPA
- CARB and EPA borrow analyses from one another

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Scientific/Technical Practices – CARB and EPA

- EPA and CARBs' rule-making practices subject to different requirements
- EPA assesses air quality and public health impacts more directly for major regulations
- CARB does not routinely consider economic impacts outside California
- CARB adopts emissions standards regulations in public meeting with a vote by the board and has more flexibility to amend standards

Impacts of California Standards

- CARB often tightens mobile-source emissions standards earlier and to a greater extent than EPA
 - § Successes later adopted nationally
 - § Some failures avoided nationally
- Separation of efforts
 - § CARB has lead on light duty and gasoline-powered non-road engines
 - § EPA has lead on on-road and non-road diesel engines

Conclusions - California's Role

§Emissions reductions come to California and the rest of the country faster

§Distribution of new technologies is restricted geographically

§CA standards inevitably impose additional costs, such as design, production, and distribution costs

§Some costs are likely passed on throughout a manufacturer's product line

Conclusions - California's Role

- Initial reasons for California to have ability to set separate standards still hold
- California should continue this pioneering role

The Waiver Process

- Each time CARB sets or substantially revises a California mobile-source emission standard, it must seek an EPA waiver
- EPA's waiver review requires substantial EPA resources, even for relatively straightforward and uncontroversial ones
- In some cases, waivers have been approved after vehicles and engines that meet the standards are already in the market

Recommendations – The Waiver Process

- Establish a two-track system for waiver requests
 - Non-controversial waiver requests approved as a direct final decision without a full notice-and-comment process
 - Waiver decisions for controversial waiver subject to a mandatory time limit for EPA to review and issue a decision

Adoption of CA Standards by Other States

- Scientific/Technical Practices

- § Methods used to estimate emissions impacts same as EPA

- § Engineering cost estimates typically adopted from CARB

- § States with larger populations (NY and MA) tend to perform their own analyses/Smaller states (VT and ME) tend to rely on analyses done by multi-state groups

- § EPA has no role over state adoption decision (no need to obtain EPA waiver)

- Primary motivation is additional emissions reductions

- § Estimates show positive, though in some cases small, emissions benefits

- § Other motivations for adopting CA standards

Issues in Adoption of CA Standards

- Manufacturers concerned with
 - §Level of air quality benefit
 - §Incremental costs of producing more California-certified engines
 - §Risks of expanding technology-forcing experiments
- Unique conditions that complicate the implementation of CA standards
- States have demonstrated some flexibility
- Many disputes end up in time-consuming litigation

Recommendations – State Adoption

- Process should be improved to aid in resolution of legal and technical disputes
- EPA should consistently participate in the process
- Two possible roles for EPA were considered by the committee:
 - EPA would provide formal, nonbinding guidance to states
 - EPA would review and, under limited circumstances, deny a state adoption decision – the EPA review would only consider whether the state's adoption raises any issues not considered in original California waiver and whether the state action is consistent with section 177 of the CAA
- EPA's role in the state adoption process is a policy decision that goes beyond scientific and technical considerations
- Committee disagreed as to which of the two approaches described above would be most effective

Small Engine Emissions Standards

- Small-engine emissions control poses special design, production, and distribution challenges compared to on-road vehicles
 - Manufacturers sell engines as well as equipment
 - Equipment often sold through a multistep distribution chain
 - No state registration process
- Small engines form a unique regulatory category different from other mobile sources

Small Engine Emissions Standards

- CARB has demonstrated some flexibility to deal with some difficulties inherent in the non-integrated industry
- CARB has also worked with industry to reduce some of the compliance testing and certification burdens
- California should continue its pioneering role in developing emissions standards for small engines
- CARB should continue to be flexible in revising standards based on new scientific and technical information

Concluding Remarks

Despite the substantial progress made over the past decades in reducing emissions from mobile sources, further progress is needed to attain air quality standards in many parts of the country. Separate California mobile-source emissions standards provide emissions control, air quality benefits, and innovation beyond federal standards.

California should continue its pioneering role when setting mobile-source emissions standards. Although a second set of standards imposes additional costs and complexity to manufacturers, the committee concludes that the California program has been beneficial overall.