

Proposed ARB School Bus Regulation for Fleets in the SCAQMD

Board Hearing

September 15 - 16, 2005
Diamond Bar, California



South Coast Rule 1195

- Adopted in April 2001
- Requires fleets with ≥ 15 buses to:
 - Purchase new alternative fuel heavy-duty buses
 - Purchase new non-diesel ULEV medium-duty buses
 - Retrofit in-use buses through exemption process
- Relies on external funding

South Coast Rule 1195 Achievements

CNG Buses and In-Use Diesel Retrofits under Rule 1195

Number of:	2000	2005
CNG School Buses	114	436
Retrofits of In-Use Diesel Buses	30-40	~2100

ARB's Proposed School Bus Rule

Similar to Rule 1195:

- Applicability: Public/private fleets ≥ 15 buses
- New purchase requirements: Best Engine Technology/Selection (BEST) = Alt-fuel
- Requires retrofits
- SCAQMD to implement

ARB's Proposed School Bus Rule

Different From Rule 1195:

- ARB rule directly requires PM retrofits; Rule 1195 retrofits via exemption process
- ARB rule reinstates sunsetted exemptions, but funding is available anyway

ARB Proposed BEST Emission Criteria

- Heavy-Duty

Best Engine/Selection Technology (BEST)		
Model Year	NOx (g/bhp-hr)	PM (g/bhp-hr)
2005-2006	1.8 (NOx+NMHC)	0.03
2007-2009	0.2 FEL	0.01
2010+	0.2	0.01

- Medium-Duty

- 2005-2009 MY: Non-diesel ULEV or cleaner

External Funding Necessary

- External/incentive funding for incremental costs required
- Funding identified: ~\$11 million per year + South Coast share of new \$25 million
- Emission benefits tied to level of external funding

Emission Benefits and Cost Effectiveness

- Emission Benefits in 2010
 - Beyond District Rule 1195: 0 tpd NO_x and PM
 - ARB stand-alone*: 0.04 tpd NO_x and 0.004 tpd PM
- Cost Effectiveness
 - \$60K/ton of NO_x reduced
 - \$390K/ton of PM reduced

* Assumes funding available, including South Coast share of \$25M

Issues

- Alternative fuel mandate
- Deters fleet turnover
- Cost/infrastructure
- School transportation funding
- Incentive funding can buy more diesel buses
- Legal backstop
- Direct retrofit authority
- Exhaust intrusion

Options for Board Consideration

- Adopt ARB proposal; seek federal waiver
- No action; District continues to enforce local rule