

# May 11 Staff Proposal for PM

- Presented at Public Workshop May 16
- 2-step approach to lowering standard to 6 mg/mi in 2014 and 3 mg/mi in 2017
- Optional SPN limit
- $1 \times 10^{12}$  particles in 1 mg of mass emitted
- Based on FTP and the European PMP
- Inclusion of BC in basket of GHGs (CO<sub>2</sub>e)

# On-going Activities

- Dialogue with industry, EPA, other stakeholders
- Lab correlation exercise (ARB, EPA, industry)
- Extensive ARB in-house vehicle testing
- Exploring fuel effects
- Considering federal reference method for CVS sampling: Title 40 CFR part 1065/1066
- Continue review of BC science
- Investigation of BC measurement methods
- Correlation of PM mass and SPN

# Feedback on Proposal

- **Strong support for driving down PM mass to lowest, feasible level (i.e., 1 mg/mi)**
- **Strong support of recognition of BC as a climate forcer**
- **Need reliable measurement methods for PM mass < 10 mg/mi**
- **PMP focus on solid particles is problematic**
- **Federal program needs PM mass for vehicle certification**
- **Practical challenges in integrating short-lived forcers like BC into framework for long-lived GHGs like CO<sub>2</sub>**
- **US EPA's BC report to congress can inform CA efforts**

# Status Update on Proposed Rules

- **Extend first compliance year to 2017**
- **Adopt 3-step approach to lower PM standard for LDVs: 6 mg/mi in 2017, 3 mg/mi in 2022, and 1 mg/mi in 2025**
- **Similar 3-step, phased-in stringency for MDVs: 6 mg/mi in 2025**
- **Continue to explore merits of optional SPN limits**
- **Consider alternatives to PMP in order to account for volatile fraction of PM emissions**
- **$2 \times 10^{12}$  particles in 1 mg of mass emitted**
- **BC control solely by PM mass**
- **BC reductions will be included in estimation of rule impacts**

# 2016-'17 Mid-term Review

- **EPA and ARB have agreed that a mid-term review should be considered after EPA has promulgated standards 2017+**
- **PM-related issues to be considered for review at that time include:**
  - Technology progress for achieving proposed standards for life of vehicle (150K)
  - Reliability of PM mass measurement at sub-3 mg/mi levels
  - Improvement to PMP: assessment of particle counting methods for total and solid particles
- **Proceed in collaborative approach: form working group**