Shaping Public Policy on Nanoparticles

Bea LaPisto-Kirtley
Mayor, City of Bradbury
Governing Board Member
South Coast AQMD
FINE PARTICULATE?
ULTRAFINES?
NANOPARTICLES?
FINE PARTICULATE
PM2.5: less than 2.5µm (microns★)

ULTRAFINES
PM less than 0.1µm (microns★)

NANOPARTICLES
less than 50nm (nanometers★)

★ micron, micrometer = one millionth of a meter
★ nanometer = one billionth of a meter
1 micron, 1µm = 1,000 nanometers (nm)
1 centimeter = 10,000,000 nanometers (nm)
Southern California Context

South Coast AQMD
Personal Context

Listened to:

• Data from USC’s “Children’s Health Study” on lung damage

• News of vigorous European actions on particulate matter
1. A Validation
2. A Challenge
Particle Mass vs. Particle Number?

- Current regulations = mass concentration limits
- Example: Federal PM2.5 Std. = 65 µg/m³
- Ultrafine particles have little mass, yet their large numbers may pose greater health risk than PM2.5
Conference Agenda

YESTERDAY'S WARM-UP SESSIONS
1. Particles (Dr. Sioutas)
2. Ultrafine PM Health Effects (Dr. Froines)
3. Ultrafine Emission & Control Strategies (Dr. Kittleson)

DAY ONE
Session 1. Ultrafine Particle Formation and Composition
Luncheon Speaker: Dr. Robert Sawyer, CARB
Session 2. Formation, Exposure to Ambient Ultrafines
Session 3. Sampling and Measurement of Ultrafines

DAY TWO
Session 4. Health Effects
Session 5. Technology I – Engines
Luncheon Speaker: Dr. Barry Wallerstein, SCAQMD
Session 6. Technology II – Fuels / Aftertreatment
Session 7. Policy Issues
Technology and Public Health

- South Coast AQMD
- Air Quality
- Advanced Particulate Control Technologies
Advanced Technologies

Near-Term

- Aftertreatment
- Emulsified Diesel
- HD Natural Gas Engines
- Natural Gas Fueling Infrastructure
- Advanced Diesel Engines
- Hybrid Vehicles (Plug-in & Hydraulic)
- Gas-to-Liquid Fuel
- H2 Technologies & Refueling
- Renewables
- Fuel Cell Vehicles

Longer-Term
“Can Southern California learn from other countries’ efforts?”

- **Definitely.**
- South Coast AQMD Governing Board pushes to introduce **globally-best-available** clean energy technologies into Southern California market as soon as possible.
Policy actions should reflect what we care about.

www.aqmd.gov