

Health Effects Update

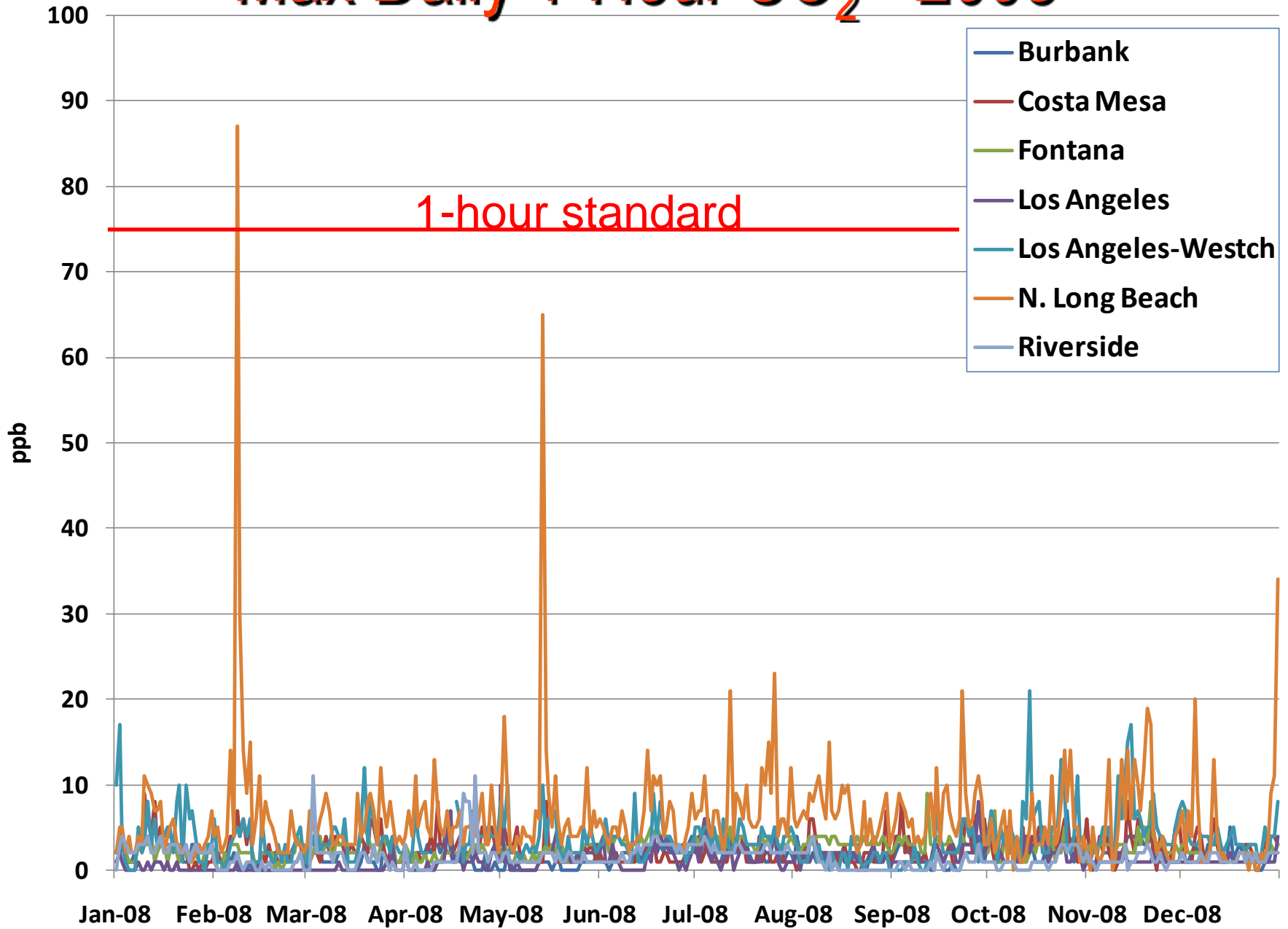
**Clean Fuels Program Advisory
Group**

August 19, 2010

Revised Primary SO₂ NAAQS

- Revoke previous annual & 24-hour standards
- Establish new 1-hour standard at 75 ppb
 - Design value: 3-year average of 99th percentile of daily 1-hour maximums
- 3 Monitors required for SoCAB
 - Report average and 5 min peak each hour
 - Regional Administrators may require additional monitors
- SCAB recent monitored SO₂ levels below standard
 - Design value 2006–2008: 24 ppb (from current network)
 - Near sources (e.g. ships, refineries, cement kilns) picture may be different

Max Daily 1-Hour SO₂ - 2008



Preliminary Data from Port Study

4th Highest Daily Max Hourly SO₂ (ppb)

	N. Long Beach	Anaheim St.	Del Amo	Hudson	So. Wilmington	Wilmington
2007	19	ND	48.7	29.1	48.1	43.6
2008	30	49.8	47.8	37.0	37.4	33.5

“Hybrid” Implementation Approach

- Determine compliance with monitoring and dispersion modeling
- Current monitoring likely will comply
- Model sources that contribute or have potential to cause or contribute to a violation
- EPA will issue guidance for air quality modeling and implementation
 - How to use model results to assess compliance
 - How to identify and assess SO₂ sources

Estimated SO₂ NAAQS Attainment Schedule

Date	Milestone
Jun 2010	Promulgation of NAAQS
Jun 2011	Initial State designation recommendations
Jun 2012	EPA completes initial designations (SoCAB “unclassifiable” without modeling)
Jan 2013	Monitors sited and operational
Jun 2013	Submit State Plans for Unclassifiable Areas
Feb 2014	SIPs due for nonattainment areas
Aug 2017	Attainment deadline

EPA Particulate Matter NAAQS Review

- Last revision 2006
 - PM_{2.5} : 24-hour @35 $\mu\text{g}/\text{m}^3$; Annual @15 $\mu\text{g}/\text{m}^3$
 - PM₁₀: 24-hour @ 150 $\mu\text{g}/\text{m}^3$
- EPA staff draft policy assessment
 - Annual PM_{2.5} : 11 – 13 $\mu\text{g}/\text{m}^3$
 - 24 hour PM_{2.5} : 30 – 35 $\mu\text{g}/\text{m}^3$
 - 24-hour PM₁₀ : retain current or revise to 65 to 85 $\mu\text{g}/\text{m}^3$, 98th percentile form
- Proposed rule target February 2011
- Final rule target October, 2011

Proposed Project: UF PM

- Ultrafine Particles Composition, Sources, Toxicology
 - USC, C.Sioutas, Sc.D.; U. Wisconsin, J. Schauer, PhD.
 - \$470,969; 30 months
- Samples collected at 10 locations over 15 months
- Conjunction with EPA Course PM study (all 10 sites), EPA Multi-Ethnic Study of Atherosclerosis (7 sites)
 - Chemical speciation
 - Laboratory toxicity assays
 - Source apportionment