Key Points about EPA's Quantitative Risk Analysis for the 2008 Ozone NAAQS

CASAC Ozone Reconsideration Panel
Conference Call

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Comments sponsored by API

Premise

- The Ozone Reconsideration must be based only on information that was in the record prior to the Final Rulemaking in 2008

- The following comments are based solely on information in that record.

Very Little of EPA's Estimates of Risk Are Due to Ozone Exposures above 70 ppb (max 8-hour average)

Mortality Risk Estimates for Exact Attainment of 74 ppb Alternative Standard(*)
(for Average of 2002 and 2004 Data; 95% Confidence Intervals in Parentheses)

	# Deaths Attributable to Ozone Exposures > 70 ppb (8-hr avg)	Percent of Total Mortality Incidence
Atlanta	**0.6** (-2.6 , 3.7)	**0.01%** (-0.03, 0.04%)
Cleveland	**4.0** (-2.5 , 10.4)	**0.03%** (-0.02, 0.07%)
Detroit	**1.9** (-0.6 , 4.5)	**0.01%** (-0.00, 0.02%)
Houston	**1.5** (0.1 , 3.0)	**0.02%** (0.00, 0.04%)
Los Angeles	**0** (0 , 0)	**0%** (0, 0%)
Sacramento	**0.1** (-0.3 , 0.5)	**0.00%** (-0.00, 0.01%)
St. Louis	**0.4** (-0.8 , 1.6)	**0.01%** (-0.02, 0.04%)

The other 93% of EPA's risk estimates are due to exposures below 70 ppb, the vast majority below even 60 ppb … where there is little confidence in the risk associations

(*) The 74 ppb Alternative Standard in EPA's Risk Analysis is a close approximation to the current ozone standard of 75 ppb

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92% to 100% of the Total Risk Disappears If Policy-Relevant Background Assumption is Varied over its Range of Uncertainty (for both Morbidity and Mortality)

Sensitivity of Quantitative Risk Estimates to PRB Assumption at Exact Attainment of 74 ppb Alternative Standard (Average of 2002 and 2004 Air Quality Data)

	# Deaths Using Model-Based PRB Assumption	# Deaths Using 1997's Monitor-based PRB Assumption	Change in Risk Estimate
Atlanta	5.3	0.1	**98% ↓**
Cleveland	31.7	2.6	**92% ↓**
Detroit	30.2	0.7	**98% ↓**
Houston	17.8	0.7	**96% ↓**
Los Angeles	28.6	0.0	**100% ↓**
Sacramento	9.5	0.1	**99% ↓**
St. Louis	3.4	0.2	**96% ↓**

EPA's decision to alter its PRB assumption -- NOT new concentration-response information – is solely responsible for the larger quantitative morbidity and mortality risk estimates as compared to the prior (1997) ozone review

Even If Effects Occur Below 60 ppb, a Tighter Standard Is Unlikely to Reduce Those Effects as EPA Estimates, Because EPA Assumes Unlikely Reductions on Days with Already-Low Peak Ozone Levels

Figure 1:
Cumulative Distribution Functions for Alternative Methods of Rolling Back to "Just Attain" a 0.084 ppm Standard
(Detroit 2004 Ambient Monitor Data)