



Comments to CASAC Sulfur Oxides (SO_x) Primary NAAQS Review Panel

Integrated Science Assessment for Sulfur Dioxide: Health Criteria and Risk/Exposure Methods

July 30, 2008

Cara L. Frankenfeld, PhD
Exponent, Inc.

On Behalf of the American Chemistry Council



Combined Category of Peak and Short-term Exposure

- **Comment**
 - Combining peak exposure and short-term exposure into one combined short-term exposure category for purposes of weighing the evidence for adverse effects is inappropriate.

- **Recommendation**
 - The evidence should be assessed in each of the original exposure categories.



Five-Tier Framework for Classifying Causal Relationships

■ Comment

- The five-part classification framework introduces a new level of evidence—evidence supporting a ‘likely causal’ relationship—that deviates from other well established frameworks for classifying evidence.

■ Recommendation

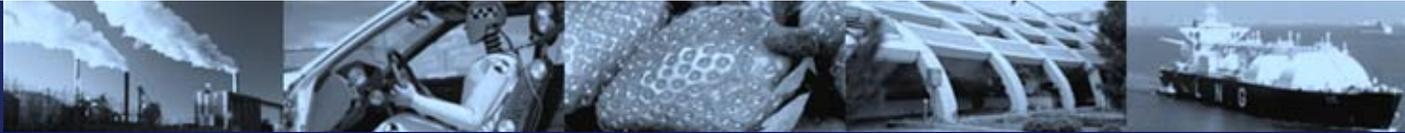
- We recommend that the classification system be amended by deleting the ‘likely causal’ tier.



Classification of Short-term Exposure and Respiratory Morbidity as “Sufficient to Infer a Causal Relationship”

- **Comment**
 - The epidemiological and clinical studies discussed do not seem to support EPA’s conclusion.

- **Recommendation**
 - Association between short-term exposure and respiratory morbidity should be classified as “suggestive of a causal relationship”.



Classification of Short-term Exposure and Respiratory Mortality as “Suggestive of a causal relationship”

- Comment
 - EPA concludes that the long-term studies show no association between SO_2 and respiratory mortality, but also concludes that short-term exposures are “suggestive” of a causal relationship with respiratory mortality.

- Recommendation
 - The classification of short-term exposure and respiratory mortality be revised to “inadequate to infer a causal relationship”.