Questions for Non-Member Consultants on the Ozone ISA from Dr. Corey Masuca

Appendix 1 Atmospheric Source, Chemistry, Meteorology, Trends, and Background Ozone

1.3.1 Precursor Sources

Are there not other chemicals besides CO and CH4 that also are contained in the precursor mix of ozone formation with its rapidly forming and degradation in the atmosphere?

Does the singling out of these two constituents of the ozone "cocktail" significant as push toward climate change/global warming instead of just evaluation ozone formation?

1.3.1.2.1 Global Methane

Again, is a teasing out/focusing on CH4 important in discussing the virtual "cocktail" of chemicals that may be associated with ozone formation/degradation?

1.3.1.2.2 International Emissions of Ozone Precursors

This section focuses on international transport of ozone precursors.

What about local/state/regional transport of ozone precursors?

1.3.1.3.2 Biogenic Volatile Organic Compounds (VOCs)

It has been stated that biogenic VOCs and contributions are greater than anthropogenic sources (i.e., motor vehicles).

Is there greater confidence in using models and remote sensing (both with relative degrees of uncertainty) to estimate biogenic ozone source contributions that vehicle emissions estimates (manufacturing vehicle emission standards and testing), in making this assessment?

1.4 Ozone Photochemistry

With the advent of monitoring for speciated compounds including PAMS and Near-Road Monitoring (NOy), should there be further discussions about the individual chemicals gleaned from the specialized monitoring.

1.5 Inter-Annual Variability and Longer Term Trends in Meteorological Effects on Anthropogenic and US Background (USB) Ozone

While temperature, wind patterns, cloud cover, and precipitation are highlighted as very important variables in ozone formation, does topography play a role (such as in Birmingham where summertime pollutants are trapped in a "mountainous bowl?"

Are there any independent effects on formation formation due to relative humidity?

Appendix 2 Exposure to Ambient Ozone

2.3 Exposure Assessment Methods

While monitoring, including fixed, ambient monitors and personal and microenvironmental monitors are highlighted, what about remote sensing? Biological sampling in blood or tissue?

2.3.2.1 Spatial Interpolation

While attempting to quantity concentrations at locations and areas between concentration points is included under **2.3.2 Modeling**, many of these exact same methods (i.e., data averaging, IDW, and kriging) are also utilized for **Monitoring** data shortcomings.

2.4.1 Time-Activity Data

Is it possible that ozone exposure through time-activity data may be reduced due to temperature alone, as more people tend to avoid time spent outdoors in the summers during extremely warm/hot/humid, stagnant days which are oftentimes conditions for greater ozone formation?

Miscellaneous Question(s)

Due to exposure to ozone being disproportionate for disparate (i.e., lower income, children), should this be emphasis in a this section, in lieu of regression analysis confounding/covariate in epidemiological studies for low(er) SES?