

March 27, 2008

To: Fred Butterfield, Designated Federal Officer, Clean Air Scientific Advisory Committee (CASAC); Ted Russell, CASAC Ambient Air Monitoring and Methods (AAMM) Subcommittee Chair

From: Rudolf B. Husar, CASAC AAMM subcommittee member

Subject: Review of Ambient Monitoring Issues Related to Lead

Options for Lead NAAQS Indicator: Monitoring Implications

I fully support the elimination of TSP-Pb as an indicator of total Pb exposure. The use of coarse particle (PM_{2.5}-PM₁₀) Pb or PM₁₀ Pb is appropriate for estimating the ambient Pb concentrations. If indeed, most of the Pb exposure (of children) is due to the ingestion of soil material, then the relevant indicator should be the Pb in the soil, which may have vary poor relationship to the ambient Pb concentration in any size range.

Lead NAAQS Ambient Air Monitoring Network: Network Design Options Under Consideration

The section of the document describing the network design is well prepared and presented. The separation of source, population and roadway-oriented monitors is logical and well-suited as network design and implementation criteria. The emphasis of the Pb monitoring network should be placed on source monitoring since point sources now dominate the national emissions. Using the source emission rate as a scaler for the number of source-oriented monitoring sites makes sense. An alternative metric for scaling the number of monitors is the population-weighted exposure. This would require more monitors for those sources that result in higher population exposure.

Population-oriented monitors would require more consideration. In particular, it would be helpful to establish whether most of the population exposure is from known distant point sources or from less known local sources. In case of the latter, a strategically designed moving sampler would establish whether such unknown Pb sources exist.

I also support Donna Kenski's suggestion to make maximum utilization of the monitoring data from the Speciation Trends Network and the evolving NCor. I do not see any reason why the Pb-sampling frequency should be different from the STN/NCor networks.