

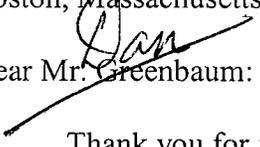


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

JUN - 8 2006

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Dan Greenbaum, President
Health Effects Institute
Charlestown Navy Yard
120 Second Avenue
Boston, Massachusetts 01219-4533


Dear Mr. Greenbaum:

Thank you for your letter of May 5, 2006, concerning the PM_{2.5} Speciation Trends Network (STN) carbon data and the need to provide the best and most consistent data to health investigators. Your letter raises a number of issues related to the complexity of carbon measurements.

Specifically, your letter states that organic carbon (OC) data collected by our STN has not been blank corrected. There are some options for blank correcting OC data. However, we still have a significant amount of work to do before we develop a final EPA approach for STN. Our most recent Air Quality Trends reports have used a very simple interim method for blank-correcting OC. We currently use average field blank measurements from 2000-2002 for the entire network to arrive at a sampler-specific average blank concentration, which we subtract from the measured OC concentration on a daily basis. Dr. Venkatesh Rao of my staff sent an email correspondence on the various approaches and their limitations to Geoffrey Sunshine at the Health Effects Institute on January 27, 2006. If you would like more information, please contact Dr. Rao at 919-541-1173.

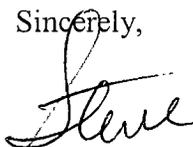
While we continue to work on an approach for understanding and correcting existing data, your researchers can access blank adjusted OC data that we have used in our Trends reports through our publicly-available web site AIR Explorer. AIR Explorer has blank-adjusted OC data that are corrected using the simplified adjustment method described above. The corrected data are available for all speciation sites and all years. The web link for AIR Explorer is www.epa.gov/airexplorer/. For analysts who would like to utilize filter blank data collected for the STN, these data are currently available in AQS beginning with July 2003. These data can be obtained from the AQS by making a special request through our web site at: www.epa.gov/ttn/airs/airsaqs/detaildata/datarequest.html.

Regarding the footnote you refer to on our TTN AQS web site, we have modified the footnote to the PM_{2.5} speciation data files to make it current. The footnote will read: "Current speciation data files contain the raw speciation data from the national PM_{2.5} network. The organic carbon concentration data are reported as measured and have not been blank-corrected. The EPA is currently exploring options for correcting carbon data and guidance will be posted when available." We also intend to make blank data sets more readily available later this summer by posting them on this site for years 2003 (beginning with July) through 2005.

You should also know of our plans to modify the sample collection and analysis protocols for about sixty of the STN sites this year. We are currently in the planning stages for implementing the Interagency Monitoring of Protected Visual Environments (IMPROVE) carbon sampler module at these sites. Once training and installation of the samplers are complete, the first sixty sites will simultaneously shift to the IMPROVE method of carbon sampling and analysis. Following this first phase of implementation, the remaining speciation sites will be converted in batches of fifty to sixty sites at a time. By adopting this approach, we will ensure better consistency in carbon measurements across our urban and rural networks. Although IMPROVE has adopted a protocol using blanks for correcting its OC for sampling artifacts, we are having Desert Research Institute (DRI) investigate the suitability of this approach for urban areas. DRI's findings are expected early next year. Once this network change and the appropriate OC blank correction procedures are in place for STN, OC data will be automatically adjusted and posted in AQS with blank correction. We plan to maintain a small set of sites with collocated STN and IMPROVE carbon protocols for a least several more years to provide data for analyzing method consistency. We are interested in talking with your staff on this project for feedback. Please have your staff contact Joann Rice at 919-541-3372.

Again, thank you for your letter. I hope that this information is helpful.

Sincerely,



Stephen D. Page
Director

Office of Air Quality Planning
and Standards

cc: Phil Lorang
Tom Helms
John Bachmann