

February 8, 2007

Steven Page, Director
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Mail Code C404-04
Research Triangle Park, NC 27711

Lydia Wegman, Director
Health and Environmental Impacts Division
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Mail Code C504-02
Research Triangle Park, NC 27711

Dear Mr. Page and Ms. Wegman:

I am writing on behalf of the NESCAUM member agencies to urge the U.S. Environmental Protection Agency (EPA) to revise the Air Quality Index (AQI) for fine particulate matter (PM-2.5). The goal is to ensure that this key risk communication tool continues to provide effective guidance to the public regarding the threat posed by elevated levels of air pollution. The Northeast states support lowering the category cut points to levels that ensure adequate public health protection in light of recent revisions to the PM-2.5 National Ambient Air Quality Standard (NAAQS). We also urge EPA to reexamine and reassess overall AQI methodologies, including considering other pollutants or surrogates, to better protect public health.

NESCAUM supported EPA establishing health protective AQI cut points for the 1997 PM-2.5 NAAQS and believes that a conservative approach should be used for the new standards. Under the 1997 PM NAAQS, EPA set the PM-2.5 cut point between yellow (unhealthy for unusually sensitive populations) and orange (unhealthy for sensitive groups) at a level below the NAAQS, reflecting the significant health risk posed by PM-2.5. In the short term, EPA should consider this approach when establishing AQI cut points for the 2006 PM-2.5 NAAQS revisions.

We understand that EPA is considering modest changes to the PM-2.5 AQI, shifting the yellow to orange transition from 40 to 35 $\mu\text{g}/\text{m}^3$, changing the orange to red cut point from 65 to 45 $\mu\text{g}/\text{m}^3$, and leaving the green to yellow cut point at 15 $\mu\text{g}/\text{m}^3$. Doing so would not adequately reflect the change in the daily NAAQS (65 to 35 $\mu\text{g}/\text{m}^3$, both at the 98th percentile). NESCAUM believes that a conservative AQI is warranted and recommends the cut points listed in the table below:

Category Cut Point	NESCAUM Recommendation (daily mean in $\mu\text{g}/\text{m}^3$)
Green – Yellow	12
Yellow – Orange	30
Orange – Red	40

This recommendation is consistent with the EPA staff paper's upper limit of 35 $\mu\text{g}/\text{m}^3$ at the 99th percentile for the daily standard, which is approximately equivalent to 30 $\mu\text{g}/\text{m}^3$ at the 98th percentile. The orange-to-red cut point should be lowered to a level slightly above the daily NAAQS, to 40 $\mu\text{g}/\text{m}^3$. Even a daily mean of 40 $\mu\text{g}/\text{m}^3$ will likely reflect much higher shorter term concentrations that are well over the 35 $\mu\text{g}/\text{m}^3$ daily NAAQS. Therefore, a stringent cut point for this category would better protect public health. We also support setting the green-to-yellow cut point (where health messaging begins) at 12 $\mu\text{g}/\text{m}^3$, based on the Clean Air Scientific Advisory Committee recommendations (12-14 $\mu\text{g}/\text{m}^3$ annual), the California annual standard (12 $\mu\text{g}/\text{m}^3$), and the NESCAUM states' general support for an annual standard of 12 $\mu\text{g}/\text{m}^3$. We understand that such changes in the AQI may make it more challenging for our state air quality forecasters, but the trade-off in public health protection is well worth the effort.

In addition, we believe it is time for EPA to undertake a substantial review of the AQI and its methodologies in light of its more recent uses and the new controlling form of the daily PM NAAQS. While the AQI worked well for its earlier usages (e.g., presenting air quality data from the previous day and making general forecasts), it is not well designed to for its current uses (e.g., forecasting real-time exposures with additional messaging at lower levels approaching the standard). Public health protection would be better served if EPA and the states worked together to overhaul the AQI in light of the multiple purposes it now serves. This should include looking at adjustments of the AQI to reflect shorter averaging times and to consider additional contaminants.

We would appreciate the opportunity to discuss NESCAUM's recommendation with you in greater detail. Since it is unclear whether representatives from our member states will be attending the February 2007 National Air Quality Conference in Orlando, we would appreciate your considering other options to solicit input from the Northeast states. Please contact George Allen at 617-259-2035 or me at 617-259-2017 if you have any questions.

Sincerely,



Arthur N. Marin
Executive Director

cc: NESCAUM Directors
Susan Stone - EPA/OAQPS
Richard Wayland - EPA/OAQPS
John E. White - EPA/OAQPS
Phil Dickerson - EPA/OAQPS