



August 16, 2006

Dr. Marc Pitchford, Chair  
IMPROVE Steering Committee  
National Oceanic and Atmospheric Administration  
c/o Desert Research Institute  
755 East Flamingo Road  
Las Vegas, NV 89119

Re: Technical Comments on IMPROVE Site Reduction Plan Analysis

Dear Marc:

On behalf of the Technical Oversight Committee (TOC) of the WRAP, we appreciate your efforts in leading the preparation of this analysis on behalf of the IMPROVE monitoring network program. The TOC membership is a broad stakeholder cross-section representing the many agencies and organizations involved in WRAP technical activities (<http://wrapair.org/forums/toc/members.html>). This letter summarizes technical comments of different groups in the WRAP involved collaboratively in regional haze analysis, planning, and regulatory programs; the Chairs of WRAP Forums and Workgroups (<http://wrapair.org/forums/cc/projects/handouts/0404WRAPCommittees.pdf>) reviewed its contents. As such, these comments and the concerns of WRAP groups and members go beyond the site-by-site review of your analysis, instead drawing on the long-term analysis experience with regional haze in the West, and focusing on the threshold question of whether to change the 110-site existing network used to track reasonable progress under the Regional Haze Rule (RHR). *These comments would necessarily be different from any site-specific comments submitted by individual states or tribes in response to your request.* We are submitting technical comments at this time to comply with your request, so the IMPROVE Steering Committee can discuss all the comments at their late September meeting. We ask that you postpone any decisions to close any of the 110 IMPROVE monitoring sites until a more complete discussion of the issues and additional analysis has been completed and reviewed.

Our initial concern is with the site-by-site analysis approach to cut the IMPROVE network because:

- EPA rulemakings identify the IMPROVE network as a vital component of the overall monitoring strategy for haze and particulate matter (PM) in the West;

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- The existing network is of particular importance at this stage of regional haze program development and implementation;
- Given that EPA has proposed similar funding reductions for tribal and state monitoring programs, it is premature to make any decisions about site-specific decommissioning for IMPROVE monitors, absent a complete picture of PM monitoring strategies and tracking needs for regional haze in the West;
- The list was developed using a narrow technical methodology, and professional judgment was applied to modify the list to avoid producing an unbalanced result across the country; and
- The site selection criteria are an arbitrary means to a pre-defined end. Different selection criteria, applied or modified in a different manner would likely produce a different list of sites.

The analysis is interesting and may be useful for some purposes, but is not suited to the long-term [60-year], control strategy-assessment purpose of the haze tracking data needs identified in the RHR for assessing reasonable progress toward the national visibility goal. States and tribes in the WRAP region remain concerned about the analysis and reasons for the proposal; Appendix A contains a specific list of technical issues with the results of the analysis.

The proposal to adopt some sort of ranking scheme to close any of the existing sites in the IMPROVE monitoring network used to track progress toward the RHR visibility goal has numerous problems and effects beyond technical issues. The results of your technical analysis cannot and should not be used to change or reduce the 110-site network at this time, nor does this decision rest solely with the IMPROVE Steering Committee. EPA should fully fund the existing network and IMPROVE should operate the network for the foreseeable future. The WRAP is preparing additional correspondence to describe concerns and recommendations of air program managers in the WRAP region about the IMPROVE network, with respect to related tribal and state funding and monitoring program issues.

Closing any of the 110 RHR monitoring sites is poorly timed, as all 50 state regional haze implementation plans are due in December 2007. The 110 sites are the lone representative monitoring locations for 156 individual Class Federal I areas of large size, and single sites represent multiple separate Class I Federal areas in a number of cases. These 110 sites are analogous to "design value" National Ambient Air Quality Standard monitoring sites in nonattainment areas; regulatory staff understand the technical need to maintain any monitoring site identified for tracking progress toward a federal Clean Air Act goal, and multiple states use these sites as the basis of coordinated analysis for RHR progress in numerous State Implementation Plans. In addition, as none of the interested parties responsible for collaborative IMPROVE network operations [States, Tribes, Federal Agencies] know at this time if any budget cuts will happen, nor the amount of such cuts, we urge the IMPROVE Steering Committee advise EPA to maintain the existing network for the foreseeable future.

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EPA should consider closing IMPROVE RHR progress tracking sites an extreme measure of last resort. If monitoring reductions in the IMPROVE 110-site RHR tracking network are to be made, the TOC recommends EPA execute its cuts based on solid analysis that fully incorporates and balances:

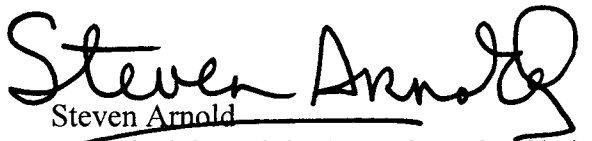
- Regional haze and air quality planning needs;
- RHR goals;
- Opportunities for cost savings in the EPA direct-funded portion of the IMPROVE program other than closing monitoring sites;
- State and tribal monitoring programs needs; and
- More rigorous technical criteria.

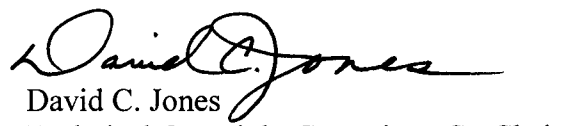
Any of these reductions deemed critical by EPA should not be simply produced ad hoc, out of narrow technical arguments. This effort will necessarily have to include state, tribal, Federal Land Manager, and EPA staff involved in those issues along with the IMPROVE Steering Committee.

We look forward to working productively with you and EPA to assume the continued operation of the IMPROVE network in its present configuration.

Please contact Tom Moore of the WRAP staff at 970-491-8837 to act on our concerns.

Sincerely,

  
Steven Arnold  
Technical Oversight Committee Co-Chair  
Colorado Department of Public Health  
and Environment

  
David C. Jones  
Technical Oversight Committee Co-Chair  
Cortina Indian Rancheria

## Appendix A

### Technical Analysis Issues with the IMPROVE Site Reduction Plan

- The analysis is one-sided; i.e., it prioritizes cutting sites without any analysis of whether the 110 existing sites adequately represent sources and meteorology affecting each individual Class I Federal area identified in the RHR.
- The analysis technique does not look forward in time to address emissions changes in the future, thus minimizing the benefit of the analysis with respect to the known emissions reductions for regional haze and other programs, i.e., “rules on the books”.
- Use of a single species ( $\text{NH}_4\text{NO}_3$ ) to assess potential redundancy does not agree with the composite total visibility metric of all visibility-impairing species specified in the RHR; i.e., any such analysis (although fundamentally flawed for the purpose of analyzing existing monitoring sites for the 60-year-long regional haze program) would have to include all visibility-impairing species as currently measured by IMPROVE.
- No attempt was made in the analysis to address source strength, topographic features and influences important in the West, and changes or variation in sources over time.
- Fire and dust emissions in the western U.S., well-demonstrated to cause huge visibility impacts in WRAP region Class I Federal areas, are generally natural in origin, and have tremendous temporal and spatial variation; thus assessing the progress in reducing emissions from controllable sources through the 2007 and subsequent regional haze SIPs requires the most complete IMPROVE RHR tracking network.
- IMPROVE RHR tracking data are critical to states with Class I Federal areas affected by international emissions impacts, thus allowing the states to track progress of measures aimed at reducing controllable emissions over time.
- The 110-site RHR monitoring network provides a crucial rural background PM monitoring network for analysis of PM NAAQS issues by EPA, states, and tribes, at local, regional, and global scales.
- Each RPO completed regional aerosol modeling for haze planning which forms the primary technical basis of testing future control strategies for regional haze. The modeling results rely on IMPROVE RHR tracking data as part of a weight-of-evidence analysis, assessing the accuracy of the modeling simulations.
- Interstate and inter-jurisdictional coordination, consultation, and emissions reduction activities rely on IMPROVE RHR tracking data, in conjunction with air mass back trajectories, are used to identify potential sources and source regions.
- The existing 110-site RHR tracking network configuration of IMPROVE sites and their data are used in several separate data analysis efforts for regional haze and PM NAAQS issues in addition to the modeling and back trajectory applications already described.