



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460**

**OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD**

March XX, 2007

Honorable Stephen L. Johnson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Subject: Consultation on EPA's Risk and Technology Review (RTR) Assessment Plan

Dear Administrator Johnson:

The EPA's Office of Air Quality Planning and Standards (OAQPS) requested that the Science Advisory Board (SAB) conduct a consultation to provide input on whether its proposed assessment plan is adequate to furnish the basis for regulatory decisions concerning specific source categories. On December 7, 2006, the panel met via telephone conference where representatives of the OAQPS offered informative presentations to the members of the SAB Risk and Technology Review Consultative Panel. The focus of the presentations by EPA representatives for this consultation was on the emission data, dispersion and exposure modeling, dose-response assessment and risk characterization to be utilized in the proposed Agency plan. On December 19, 2006, the panel met again via telephone conference to discuss and deliberate on the charge questions. The SAB was asked to comment on the appropriateness and adequacy of using a new approach to perform an assessment with the goal of characterizing the exposures and risks associated with the emissions of hazardous air pollutants (HAPs) from 51 different industrial source categories. Feedback on the charge questions was provided by panel members and a compilation of their comments and recommendations is appended to the minutes for this meeting.

On behalf of the panel members, we would like to express our sincerest gratitude to the presenters for their expertise, perspectives and insights. Their contributions greatly increased our understanding of the Agency's current policies, methods, practices and future directions proposed for residual risk assessment. Highlighted in this letter are several key messages that emerged among the panel members as a result of the Agency presentations and discussions.

The SAB agreed that the Agency has obviously put great effort into constructing a well thought out risk assessment plan. The Agency has utilized sound principles and science, used external peer review and public comment, and is developing a more streamlined approach for assessing both exposure and residual risks associated with HAPs emissions. Individual

comments from panel members contain many helpful suggestions for enhancing the proposed methodology; some of them are highlighted below:

- Address the concern that the expedited review (RTR II) is focused on the most feasible sources to review, i.e., the easiest assessments to make, rather than on the sources with the greatest potential residual risk.
- Revise the document to make it clearer, and the process more transparent, by addition of flow charts that indicate the differences between the various RTR processes (RTR I, RTR II, RTR III, etc);
- Incorporate a framework for improving the National Emissions Inventory (NEI) as new/more accurate data become available;
- Address the uncertainty and/or bias of the model estimates, and the disparities between the Human Exposure Model and the American Meteorological Society/EPA Regulatory Model dispersion modeling system (HEM-AERMOD) data compatibility;
- Improve models to better reflect the atmospheric transformations that affect potential health/environmental impacts associated with emissions of interest;
- Compare measured field results to modeled estimates to help determine how well models predict actual conditions for HAPs;
- If feasible, develop a probabilistic analysis of the exposure scenario and other factors in order to (1) provide more transparency regarding variability and uncertainty in the exposure and risk estimates and (2) allow a more informed judgment regarding the extent of conservatism included in the calculation/model;
- Develop a transparent decision framework that (1) identifies HAPs where ecological risks rather than human health endpoints are the basis for setting air emission limits and (2) addresses the importance of facility emissions relative to background sources for naturally occurring HAPs;
- Clearly and repeatedly state in any communication to the public that the assessment should be used only for the purpose intended by the Agency and that the estimates should not be construed as absolute estimates of residual risk for use in population-based studies;
- Evaluate how existing toxicity databases will be used in the RTR process;
- Conduct a sensitivity analysis to determine (1) which inputs are the main drivers of the Residual Risk estimates and (2) if differences in the levels of uncertainty for those inputs (for example, uncertainties in emissions from some sources compared to others) may potentially result in misclassification.

Finally, the SAB commends the Agency on seeking early advice to enhance their Risk and Technology Review Assessment Plan. We look forward to working with the Agency as they implement this plan and refine their assessments.

Sincerely,

Rogene Henderson, PhD
Chair, Risk and Technology
Review (RTR) Consultative Panel

Granger Morgan, PhD
Chair, Science Advisory Board