UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460

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OFFICE OF
THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

EPA-SAB-IAQC-LTR-93-002

Honorable William K. Reilly
Administrator
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Subject: Science Advisory Board Review of the Risk Assessment Forum's Draft Guidance Document on Showering with VOC Contaminated Tap Water

Dear Mr. Reilly:

On February 24-25, 1992, the Indoor Air Quality and Total Human Exposure Committee (IAQTHEC) of the Science Advisory Board met to review the Office of Research and Development's (ORD) proposed guidance on showering with tap water contaminated with volatile organic compounds (VOC) (entitled: *Project Summary - Guidance on Estimating Exposure to VOC's During Showering).* According to the Risk Assessment Forum (RAF), this "...document is based on discussions among EPA scientists and a few outside experts with the goal of developing some limited guidance for situations where guidance does not currently exist...." The RAF has developed this guidance for Agency-wide use, and plans on distributing this guidance through the Agency's Risk Assessment Council. However, before doing so, the Forum has requested that the SAB review its interpretation of the underlying science upon which the guidance is based (i.e., is the guidance scientifically defensible), and whether the recommendations represent useful, practical guidance for Agency risk assessors.

The Committee has provided the Agency with a detailed discussion of their concerns during the public meeting (for which a transcript has been made available). The Committee has highlighted several of their concerns in this letter,

including some comments specific to this draft guidance document, as well as comments which concern the preparation of such guidance documents in general.

Although the Committee believes that the draft document represents a good start towards developing guidance to be used by Regional EPA risk assessors in responding to public concerns, we believe the draft still needs significant improvement. We are aware that the scientific basis for anything but general advice in this case is extremely limited. As with many public health concerns, vague generic advice may be misleading and inappropriate for many specific situations that arise. Nevertheless, we were pleased to note that the Agency seeks to include non-ingestion exposure pathways when assessing risk to VOC, which, under certain circumstances, can dominate total human exposure. Guidance to help identify the circumstances where, for example, the inhalation hazard from volatilized agents can exceed the ingestion hazard is clearly needed by risk assessors. In addition, there are many factors that affect the total dose of VOC received from showering, including water temperature, droplet size, room size, shower duration, and number of showers per day. The latter could be important considerations for teenagers, and other segments of the population.

We believe that there is also a need to provide easily accessible information to other public officials and the public who are also concerned about such instances. Since local health department staff, e.g., local health officers, sanitarians, and sanitary engineers, often have to (perhaps more often than EPA regional staff) respond to such concerns, we recommend that EPA consider such individuals as this guidance document is revised. Ultimately, EPA should consider distributing the guidance to local health departments. We believe that it is not only important that the various EPA regions give consistent advice, but that the advice by EPA in a given region is consistent with that given by the local health departments.

If the Agency chooses to request additional SAB review of guidance documents such as this one in the future, we would suggest several generic improvements in addition to the above comments. Clearly, one is a consistent guidance document format with a standardized outline.

This particular document needs to be presented in a more polished form, so that it can be reviewed for content and the appropriate use of the scientific support for the recommendations and guideline steps that are included. Furthermore, a history of the project and details concerning workshops that

formed the basis of the information contained in the guidance are extraneous to the guidance document and can be deleted.

We also recommend that some mechanism be set up to document phone calls from citizens and to detail the facts of specific incidents and the lessons they provide. By so doing, regions can share information, providing a timely and informal mechanism for assessors in the various regions to develop consistent advice. It would also be a mechanism for use by EPA Headquarters in determining the effectiveness of these documents in establishing consistent advice across the Regions.

The Committee is not prepared to endorse this draft document as final EPA guidance at this time. If the Agency chooses to request SAB review of a revised document in the future, we would are prepared to do so. We appreciate the opportunity to review this draft document and look forward to your written response.

Sincerely,

Raymond C. Loehr

Dr. Raymond C. Loehr, Chair
Executive Committee
Science Advisory Board

Morton Lippmann

Dr. Morton Lippmann, Chair
Indoor Air Quality and Total
Human Exposure Committee
Science Advisory Board

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Science Advisory Board
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Dr. James E. Woods, Jr., College of Architecture and Urban Studies, Viginia Tech Blacksburg, VA

Science Advisory Board Staff

Mr. A. Robert Flaak, Assistant Director, Science Advisory Board, U.S. EPA, Washington, DC

Ms. Carolyn Osborne, Program Assistant, Science Advisory Board, U.S. EPA, Washington, DC

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