



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

EPA-SAB-IAQC-LTR-93-003

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Forum's Draft Guidance Document on Assessing Health
Risks of Gasoline Vapors in Buildings

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 assessing health risks of gasoline vapors in buildings (entitled: *Regional Guidance on Assessment of Health Risks Associated with Gasoline Vapors in Buildings*). 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.

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.

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 The Committee has highlighted several of their concerns in this letter, including some comments specific to this draft guidance document, as well as comments which concern the preparation of such guidance documents in general.

Specific Comments:

- a) The draft document gives both safety and health guidance. The title should reflect that dual role.
- b) The draft document addresses sampling but does not say who will do it. Does EPA intend to send staff into the field? If not, a list of commercial labs should be made available to the caller.
- c) The draft document recommends that sensitive populations be "...taken into account...", but does not say how. Use of different populations can lead to inconsistent evaluations. More information on sensitive populations is needed. It is important to define these groups accurately and use them in determining overall population risk.
- d) The removal of people from and/or ventilation of an area which has significant sources of volatile organics is essential. Studies should be done or guidelines provided concerning when one should make measurements to determine the presence of gasoline and/or other volatile organics.
- e) Gasoline measurements should be taken in suspected source areas, basement or garage, and in the locations where complaints are being recorded from occupants. Fingerprint analysis of compounds is essential from both places to ensure identification of the source emissions.
- f) If the building is located near an outdoor source, such as a gas station or highway, the influence of background levels (based on air transport from these sources) must be considered. Background

measurements are essential to properly assess the sources of exposure.

- g) Information about plausible sources and interim methods of remediation which provide more practical guidance to the homeowner should be provided. In addition, the document should provide the public with information on the general types of public agencies which should be contacted for explosive versus less than explosive levels.
- h) Most homeowners will not care to learn why occupational exposure experience is not relevant to residential basements. Rather they will want to eliminate the smell and the hazards.

General Comments:

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.

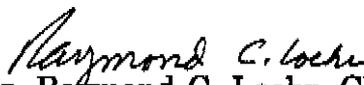
If the Agency chooses to request additional SAB review of guidance documents such as this one in the future, we would suggest several generic improvements in addition to the above comments. Clearly, one is a consistent guidance document format with a standardized outline.

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. 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 be prepared to do so. We appreciate the opportunity to review this draft document and look forward to your written response.

Sincerely,


Dr. Raymond C. Loehr, Chair
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Science Advisory Board


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