



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

September 29, 1982

OFFICE OF
THE ADMINISTRATOR

MEMORANDUM

TO: Anne M. Gorsuch, Administrator
Environmental Protection Agency

THROUGH: Ernest F. Gloyna, Chairman
Science Advisory Board

FROM: Roger O. McClellan, Chairman
Environmental Health Committee

SUBJECT: SAB Review and Closure of the Draft Health
Assessment Document for Toluene

The Environmental Health Committee of the Science Advisory Board has completed its review of the Draft Health Assessment Document for Toluene (March, 1982) prepared by EPA's Office of Research and Development. The Committee concludes that at current ambient exposure levels there is no evidence that toluene presents any significant health hazard to the public.

The Committee generally endorses the document as scientifically adequate for use in regulatory decision making. The document presents a carefully researched and well written account of what is presently known about the sources of toluene in our environment, the extent and size of the exposed population and the carcinogenic, mutagenic, teratogenic and toxicologic consequences of that exposure. The Committee agrees that the evidence at hand does not indicate that toluene is carcinogenic, mutagenic, or teratogenic. The issue of toluene carcinogenicity is currently being investigated in a long-term bioassay of rodents conducted under the sponsorship of the National Toxicology Program.

The document identifies but, in the Committee's view, does not dwell forcefully enough on the shortcomings of some of the biologic and toxicological information presently in the literature. With that in mind, the Committee suggests that the toluene assessment document discuss how these research needs are being met or how they might be met.

Additional comments and suggestions which should be considered in the preparation of the final document are summarized in the attachment.

Attachment

cc: Dr. Courtney Riordan
Dr. John W. Hernandez, Jr.,
Dr. Terry F. Yosie ✓

Additional Comments and Suggestions

General

- Noting that the cutoff date for the inclusion of literature in the document was the spring of 1981, it is generally felt that the report would benefit from an updating of references.
- The Table of Contents needs to be updated.
- It would be useful (and consistent with other health assessment documents) if references were cited at the end of each chapter (rather than all together at the end of the document).
- There should be consistency throughout the document in stating concentrations in either or both parts per million and milligrams per cubic meter.
- An attempt should be made to express such concepts as "multi-media integrated approach to environmental risk assessment" in language more readily understandable to non-specialized readers.

Executive Summary

- It would be useful to include an overview of the essentials of the toluene problem presented in tabular form.
- The Executive Summary should include a general statement on the relative toxicity of toluene and, in particular, on the toxicologic significance of ambient concentrations.
- In the Health Effects Summary (pp. 1-10/11), the basis for the estimates of the dose - response relationships for the acute effects in humans of single short-term exposures should be more fully discussed.

Attachment

Behavioral Toxicity and Central Nervous System Effects

- Here, in particular, the report would benefit from including references to more recent studies.
- A more critical evaluation, particularly of some of the Russian and Japanese studies, is suggested.

Exposure Assessment

- Table 10-3, Toluene Exposure Under Different Exposure Scenarios, needs to be referenced and clarified.

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