



CHEMICAL MANUFACTURERS ASSOCIATION

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Vice President
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Mr. Michael Heylin
Editor
Chemical and Engineering News
1155 16th Street, N.W.
Washington, D.C. 20036

Dear Sir:

The lead story in "Government Concentrates" on page 28 of your September 20, 1982 issue misses the essence of CMA's concerns over the benzene risk assessment. The article conveys the impression that CMA's disagreement with the conclusions from the NIOSH study and the controversy over the International Agency for Research on Cancer (IARC) monograph are separate issues. IARC used, as the basis for its assessment, the NIOSH study with which we take issue; thus, the two controversies are inextricably related.

Contrary to your account, IARC did not drop "data" from its report. In the published monograph, IARC did not include a quantitative projection of leukemia risk resulting from working lifetime exposures to benzene at 10 ppm. The projection appeared in an earlier (October 1981) draft.

The controversy over the IARC report is directly related to CMA's position that the NIOSH study does not support a quantitative projection of leukemia risk. In the NIOSH study, leukemia deaths occurred only among members of the cohort whose work experience began during the period 1940-1950. The recommended workplace standard from 1940 to 1945 was 100 ppm but the study contains no sampling data to support the contention that exposures during that period were in compliance with the standard. CMA contends, as stated in your article, that levels in the plants at times far exceeded the recommended limit. No leukemia deaths were observed among workers with benzene exposure beginning after 1950 when more stringent control measures had been introduced and the standard had been lowered to 35 ppm.

The uncertainty surrounding the levels of exposure associated with excess leukemia deaths makes the data unsuitable for quantitative risk projection. The assumption that a linear relationship exists between the level of

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benzene exposure and excess leukemia risk is also unfounded. In fact, the NIOSH data give no indication of a dose-response relationship. To the contrary, the data show an increased leukemia risk at benzene exposures equal to or greater than 100 ppm and no excess risk below this level. There is ample evidence in the literature supportive of this finding.

In conclusion, CMA agrees that benzene poses a health risk at exposures in excess of 100 ppm; however, there are no data to support quantitative risk estimation at lower levels of exposure. We trust that these comments have helped clarify CMA's position with respect to the IARC report and the related NIOSH study.

Sincerely,

Geraldine V Cox
Geraldine V. Cox, Ph.D.
Vice President and
Technical Director