

ASBESTOS
Special
Re: Duluth
10/1/74

PLAINTIFF'S EXHIBIT

USX-1112

Asbestos-Like Fibers in Duluth Water Supply

Relation to Cancer Mortality

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• Asbestos-like fibers in industrial waste first entered the water supply of Duluth in 1955. In the next 14 years, no carcinogenic effect was apparent in the patterns of cancer mortality among persons of all ages, nor among children. The period of observation is short relative to the latent period for occupationally induced carcinogenesis from asbestos.

(JAMA 228:1019-1020, 1974)

HIGH concentrations of asbestos-like fibers have been reported recently in the drinking-water supplies of Duluth, Minn, and other communities on the shores of Lake Superior. Officials of the Environmental Protection Agency stated that these fibers probably came from mine-tailings or mill-

waste from taconite ore, which has been emptied into Lake Superior since 1955.^{1,2} This pollution has caused concern because occupational exposures to asbestos are known to induce mesothelioma of the pleura and peritoneum, as well as cancer of the lung, esophagus, and stomach, after a latent period usually of 20 to 40 years.³ Asbestos fed experimentally to rats has passed through the gastric and intestinal mucosa into the bloodstream. Fibers were lodged in gut

wall, lungs, brain, omentum, and other organs.⁴

To determine if the fibers present in the drinking water of Duluth were related to cancer mortality, we have studied data abstracted from death certificates for all persons who died of cancer in the United States, from 1950 to 1969.

Methods

The data were made available to us by the National Center for Health Statistics. We have tabulated the numbers of deaths ascribed to cancer among whites, according to age, sex, and five-year intervals, as well as the age-adjusted cancer death rates for Duluth (1960 population, 105,759), for comparison with data for the state

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JAMA, May 20, 1974 • Vol 228, No 8

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