

from the desk of

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8/30

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Asbestos

EVALUATION BASED ON TYPE OF FIBER REFUTED BY THREE FEDERAL HEALTH GROUPS

The Environmental Protection Agency's policy of regulating asbestos uniformly, rather than by the type of asbestos fiber, was endorsed recently by three federal health groups after the policy was challenged in a House Appropriations Committee report and by U.S. Geological Survey officials.

The House report and Geological Survey officials maintained that chrysotile or "white" asbestos is less of a health hazard than other forms of the substance, and should not be regulated as stringently.

That position, however, was disputed by the Centers for Disease Control, the National Toxicology Program, and the National Institute for Occupational Safety and Health. The groups said scientific evidence clearly links chrysotile asbestos exposure to increased incidences of human cancer.

Their opinions came in letters sent in response to an inquiry from Sen. Robert T. Stafford (R-Vt), chairman of the Senate Environment and Public Works Committee, and committee member Sen. James Abdnor (R-SD).

Stafford and Abdnor said they sought to clear up the confusion created by a Geological Survey mineralogist who briefed committee staff members on the human health risks associated with chrysotile asbestos fibers.

Support of Chrysotile Asbestos

The mineralogist, Malcolm Ross, cited a study of Canadian chrysotile asbestos miners that Ross said demonstrated that inhaled white asbestos does not present a significant health risk.

After receiving a similar briefing, the House Appropriations Committee said in its May 23 report on fiscal 1985 funding for HUD-Independent Agencies that EPA should study chrysotile asbestos before taking any further regulatory action restricting asbestos use.

The House report concluded "there is no conclusive evidence of measurable adverse health effects produced by the inhalation of 'white' asbestos at low nonoccupational exposure or from ingestion even at high concentrations."

EPA is seeking to control asbestos exposure in schools and other public buildings, and has included the substance among its top agency regulatory priorities for fiscal 1984 (Current Report, Feb. 24, p. 1678; Jan. 13, p. 1518).

Most of the asbestos used in this country is the chrysotile variety, according to the House report.

Health Groups' Responses

Citing a number of health effects studies, the Centers for Disease Control said current data "have shown that chrysotile asbestos is carcinogenic and fibrogenic."

CDC officials said that conclusions by the Geological Survey that white asbestos is not as hazardous as other forms of the substance were "made using many statistical manipulations that are highly inappropriate." The USGS also failed to "consider the period of time from first exposure to disease manifestation," which can be up over 30 years, according to CDC.

David Rall, director of the National Toxicology Program, said that, while early reports on Canadian miners "suggested that chrysotile was less carcinogenic than other forms of asbestos," recent studies have shown "that chrysotile causes lung cancer and there is a linear dose response relationship between chrysotile fiber concentration and lung cancer. Further, there has been an increased incidence of mesothelioma related to chrysotile exposure."

Richard Lemen, director of NIOSH's Division of Standards Development and Technology Transfer, said that chrysotile asbestos "is as potent as the other types of asbestos." Lemen said current epidemiological studies demonstrate white asbestos' "ability to induce non-malignant respiratory disease and cancer in humans."

Premanufacture Notification

CONSENT ORDER LIMITS USE, EXPOSURE OF THREE CHEMICALS, ALLOWS MANUFACTURE

Workplace exposure controls, use limitations, and recordkeeping requirements for three premanufacture review chemicals were approved by the proposed manufacturer and the Environmental Protection Agency in a consent order which allows the firm to make the substances.

According to the Toxic Substances Control Act agreement, the controls are needed on PMN 84-105, 84-106, and 84-107 because the chemicals are similar to a substance shown to cause kidney, liver, and lung damage in test animals. Dermal, oral, and inhalation exposure was anticipated for the substances.

Exempted from the controls, however, is manufacture of the chemicals in small quantities for research and development purposes and manufacture solely for export.

Under the consent order, the company agreed to limit airborne concentrations of the chemicals, require respirators when the concentrations reach a certain level, require workers to use protective clothing and impervious gloves, and maintain records on the safety precautions. Exposure protection information must be distributed to all employees who might be exposed to the substances.

The agreement, developed under TSCA Section 5(e), also limits uses of the chemicals. PMN 84-105 was approved for use as a monomer, and 84-106 and 84-107 as intermediates.

Section 5(e) of the act allows the agency to limit or ban premanufacture review chemicals on which insufficient data are available. In this case, the company agreed to follow the exposure and use controls in return for being allowed to produce the substances.

Confidentiality Claims

Claimed as confidential business information on the premanufacture notices were the manufacturer's name and identification of the substances, exact use, and environmental release or disposal information. Generic names provided for the chemicals identified PMN 84-105 as halogenated alkene and 84-106 and 84-107 as halgenated alkanes.

Toxicity data indicated that 84-106 was a severe skin and eye irritant in animal studies and 84-105 and 84-107 were moderate skin and eye irritants, according to the consent agreement. The agreement was signed June 13 by John Moore, assistant EPA administrator for pesticides and toxic substances, and by the firm June 5.

The agency indicated that the substances have the potential for bioaccumulation, but noted that no significant releases are expected under the conditions of manufacture and use and no environmental effects are anticipated.

While not requiring further study of the three chemicals, the agency indicated it might modify or eliminate the exposure and use controls if certain recommended tests showed the substances are safe. Subchronic inhalation studies were recommended for all substances; a teratogenicity study was recommended for PMN 84-106.