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Dangers of Exposure to Asbestos Are Cited by Federal Scientists

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WASHINGTON — Government scientists have recommended a 50-fold reduction in occupational exposure to asbestos.

The National Institute for Occupational Safety and Health(NIOSH) report says an updated study of the problem "provides no evidence for a threshold or for a "safe' level of asbestos exposure."

The NIOSH study said the chronic lung disease resulting from inhaling asbestos fibers usually developed slowly over the years, "often progressively even without further exposure."

NIOSH has termed the talc mined by the R.T. Vanderbilt Co. at Gouverneur asbestos and says it should be labeled that way. Vanderbilt says the talc is not asbestos, and, so far, the Occupational Safety and Health Administration (OSHA) has allowed Vanderbilt to certify to its customers that it is not.

The new NIOSH evaluation, a copy of which was made available to The Times, says, "No assessment can presently be made concerning the existence of a level of asbestos exposure below which an increased risk of cancer could not be detected."

It recommended a standard of the lowest level that can be detected by available analytical techniques and set that at one-tenth of a fiber per cubic centimeter of air with a peak exposure five times that on the basis of a 15-minute sampling period.

In 1972 NIOSH recommended a standard of two fibers based on a count of fibers longer than five micrometers. On June 7 that year OSHA set a standard of five fibers, with a peak of 10.

That figure was supposed to be reduced to two fibers by last July 1, but apparently was not.

Following a court case, the NIOSH report said, OSHA decided that "to achieve the most feasible occupational health protection" it would need a new examination. On Oct. 9, 1975, it proposed a rule lowering the standard to half a fiber, with ceiling 10 times that high.

A year ago OSHA's Marshall L. Miller asked NIOSH to reevaluate information on the health effects of occupational exposure to asbestos. The new recommended standardresulted.

NIOSH said the standard was designed to protect against non-cancerous effects of asbestos and to reduce materially the risk of asbestos-induced cancer, since "only a ban" could assure protection.

The standard, NIOSH conceded, "poses some difficulties in that specific work practices and innovative engineering control or process changes are needed."

However, it added, the difficulties "should not be cited as cause for permitting continued exposure to asbestos" at concentrations higher than the recommended standard.

The standard, NIOSH said, was designed only for processing, manufacturing and use of asbestos and asbestos-containing products under the 1970 law setting up OSHA.

A lung disease called asbestosis has been identified among persons living near mineral deposits and even relatives of asbestos workers.

NIOSH says the size and shape of fibers are important, with the narrower fibers the most active in producing tumors. The lower the exposure, the lower the risk of developing cancer, the report added, and "excessive cancer risks have been demonstrated at all fiber concentrations studied to date."

The study referred to a series of experiments comparing the effects of a pure asbestos-free cosmetic talc with superfine chrysotile asbestos used in previous tests. The latter turned out to be much more dangerous.

Late experiments on laboratory rats ruled out trace metals from mill hammers used to prepare the fiber as factors in producing tumors.

NIOSH said thicker or longer fibers were either not inhaled or were rapidly cleared from the respiratory tract.

Dr. Irving J. Selikoff of the Mount Sinai School of Medicine in New York said a study of 232 former insulation plant workers showed positive x-ray findings among individuals exposed to asbestos for as little as one day. Another study showed lung disease findngs in family members with no known exposure other than residing with an asbestos worker.

A third study reported "significantly increased risk of death for non-malignant respiratory disease and for diseases of the heart" among workers in a major manufacturing complex using the mineral chrysolite, which is one of the asbestos-like fibers.

The mineral in the Vanderbilt talc that is causing the controversy is tremolite. Three and a half years ago a NIOSH health hazard evaluation of Fortune Industries in Chelsea, Mich., found the asbestos standard exceeded by the Vanderbilt talc the company used and urged Fortune to "use a non-fibrous material in place of tremolite."

That led to a Vanderbilt petition to OSHA to modify the asbestos standard, and it did in the fall of 1974.

If the new NIOSH proposal is adopted by OSHA, Vanderbilt would be forced to label its St. Lawrence County talc asbestos.

The National Bureau of Standards is now studying the Vanderbilt talc to see whether it would classify it as asbestos. If the finding is affirmative, OSHA is expected to follow suit.

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