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U.S. Weighs Tighter Controls on Arsenic After New Data Indicate a Link to Cancer

By a WALL STREET JOURNAL Staff Reporter

WASHINGTON—The Labor Department is weighing whether to quickly clamp tighter controls on in-plant handling of inorganic arsenic in the light of new evidence of a high rate of cancer deaths among workers exposed to it.

The evidence, from Allied Chemical Corp. and Dow Chemical Co., was given recently to the department's Occupational Safety and Health Administration, which already was studying whether to impose new limits on arsenic use.

Government officials estimate that as many as 1.5 million employees may be directly or indirectly exposed to raw inorganic arsenic, twice as many workers as are potentially involved with vinyl chloride, another industrial chemical whose suspected cancer-causing role has recently sparked government action.

The Labor Department has scheduled a Sept. 20 hearing to obtain further data on arsenic, which is used in making a wide variety of products, including pesticides, defoliants, crabgrass killers, glassware, marine antifouling paints and some medicines.

Concerned Over Results of Study

Government scientists explained that, while large amounts of arsenic have long been known to cause rapid death when directly swallowed, the new findings represent some of the first conclusive evidence that much smaller amounts, breathed in over a long period of time, may cause death by leading to the growth of cancers.

Officials were particularly concerned about the Allied Chemical report, given to the agency only last week, that showed a far-higher-than-normal rate of lung and lymph cancer deaths among retired employees of a Baltimore plant where arsenic had been used to form other chemical products.

A Johns Hopkins University study team retained by Allied found that of 22 deaths among retirees from the plant, 17 had been caused by cancer, including 10 from lung cancer and three from lymph cancer. The findings stunned federal officials because normal rates of cancer incidence would have forecast only 1.2 cancer deaths among the 22 retired workers.

Plant Situated in Baltimore

An Allied spokesman said the company's report to the government followed a study from 1969 to 1973 of 27 deaths of employees and former employees of an Allied arsenic compounds plant in Baltimore.

The plant, which is still operating and currently employs 45 persons, makes the compounds from arsenic trioxide, which is purchased from copper producers. The arsenic trioxide is a by-product of copper.

Allied found that 19 of the 27 deaths were from cancer. Among the pensioners, the company said, the rate of death from lung cancer was seven times the normally expected rate; the death rate from lymphoma, or cancer of the lymph system, was six times normal.

The persons who died of cancer had worked in the arsenic-compounds plant for

10 to 30 or more years, Allied said. It said the average age of death was over 66, about normal.

Allied said the plant hasn't been closed down because operating changes in recent years are believed to have reduced the danger. For example, the plant last year stopped producing solid arsenic compounds and now makes only liquids, for which exposure levels are easier to control.

Allied added that it and consultants are continuing to study the problem.

The Dow report, which concerns an arsenic processing operation no longer in existence, also disclosed abnormally high rates of death from lung and lymph cancer among exposed workers. In Midland, Mich., Dow said it discontinued manufacturing arsenic more than 15 years ago.

In an earlier study, presented to the Labor Department agency in January, the Health, Education and Welfare Department's National Institute for Occupational Safety and Health urged that arsenic exposure in U.S. plants be reduced from the present legal maximum of 0.5 milligram a cubic meter of air to 0.05 milligram largely because arsenic was suspected of causing cancer.

Death Rates Called "Fantastic"

One government health official called cancer death rates among retired employees of the Allied plant "fantastic," and Dan Boyd, the job-safety agency's chief of standards, said he has given the arsenic issue "top priority" in the wake of the Dow and Allied reports. Government officials have also notified world health officials of the findings.

Edward Baler, deputy director of HEW's Job Safety Institute, said one factor in the retiree deaths may be the since-abandoned plant practices that years ago brought workers into far greater contact with arsenic than even the current 0.5 milligram

standard allows. He said that in some cases, years ago, workers even shoveled powdered arsenic from large open heaps into containers.

The job-safety agency officials said the possible effect on consumers using products containing arsenic, such as crabgrass killer or paint, wasn't known. They said, however, they assumed other government agencies concerned with environmental and product safety would investigate the situation, as they did in the case of vinyl chloride.

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