CANCER DEATHS AMONG PVC WORKERS CAUSE CONCERN

Long-existing concern over possible health hazards to workers in firms making polyvinyl chloride and vinyl chloride intensified dramatically last week with a disclosure that indicates there may well be a serious occupational disease problem—one involving cancer.

B. F. Goodrich Co. voluntarily revealed to federal and state officials that since 1971 three blue-collar workers at its PVC resins plant at Louisville, Ky., have died from a very rare form of liver cancer, two in 1973 and one in 1971. The cancer—angiosarcoma—is so rare that federal authorities estimate that deaths throughout the U.S. from this cause total only 21 per year.

Alerted to the deaths, federal experts and safety inspectors rushed within 48 hours to the plant. Dr. Marcus M. Key, director of the National Institute for Occupational Safety and Health, says that his agency will step up its effort to determine the extent of the disease in the U.S. and in foreign countries with similar manufacturing processes.

NIOSH plans to develop, on a crash basis, criteria for stringent work practices for use in the polyvinyl chloride process. An agency spokesman tells C&EN the criteria might be ready in several weeks.

The deaths were among BFG employees who worked in some phase of the PVC polymerization operation, but not in drying, finishing, or other areas. They had worked for BFG for 15 to 28 years.

Dr. Maurice N. Johnson, BFG's director of environmental health, stresses that the causes of death are subject to verification and that the company is probing to see whether they are occupationally linked.

Neither company officials nor federal experts are certain now what the suspect carcinogen may be, if the deaths are due to job exposure. And apparently there is no violation of the federal standard for exposure to vinyl chloride vapors of 500 p.p.m. of vinyl chloride on a time-weighted-average basis. BFG says maximum exposures in its plants have ranged from 50 to 100 p.p.m. with possibly higher exposures but not for long periods.

Dow Chemical, a major vinyl chloride maker, urged use of a 50-p.p.m. exposure level in the literature in 1961 and adopted it as a company standard some 15 years ago. Regular physical examinations for Dow workers support the safety of this level, says Dr. Etcyl H. Blair, health and environmental research director. But last summer Dow warned all of its U.S. vinyl workers of a "potential problem," based upon results of an Italian research study that found tumors in rats administered 30,000 p.p.m. of vinyl chloride.

To its credit, BFG's voluntary alert is the first such notice ever made to NIOSH by a firm for a serious health problem. But the ensuing probe seems likely to shake operators of the 36 existing PVC resin plants in the U.S. as well as another 14 vinyl chloride plants.

Lift price curbs on plastics, SPI urges

Citing high overseas prices luring plastic resin supplies from the U.S. market, the Society of the Plastics Industry has petitioned the Cost of Living Council to exempt petrochemical feedstocks, plastic resins, and fabricated plastic products from Phase IV price controls.

The move is a result, according to SPI president Ralph L. Harding, Jr., of "raw material shortages caused by the world energy crisis and artificial domestic shortages attributable to Phase IV price regulations." Mr. Harding says domestic price limits have held resin and feedstock prices at "abnormally low levels," leading producers to increase exports of these products to more lucrative foreign markets.

Harding: to end artificial shortages

The SPI position lines up with that taken by fertilizer makers in their successful bid to have fertilizer industry wage and price controls lifted to ensure adequate supplies for the U.S. market (C&EN, Nov. 5, 1973, page 2). The fertilizer industry victory, however, may be in trouble. The Cost of Living Council is considering placing some new form of price control on the industry in response to what it believes to be excessive price hikes on certain fertilizer products.

In arguing its case to CLC, SPI claims that polyethylene sells for up to 45 cents a pound abroad, compared with a domestic price of about 18 cents a pound, and polystyrene that lists for about 16 cents a pound in the U.S. sells in foreign markets for up to 80 cents a pound. The petition also says that petrochemical feedstocks such as ethylene and benzene sell on foreign markets for as much as four times their domestic price. Thus, SPI claims, it is not difficult to see how economic conditions have dictated significant sales of plastics resins and petrochemical feedstocks abroad." However, two large petrochemical and resin makers, Dow Chemical and Union Carbide, previously contacted by C&EN, deny that their exports of these products increased significantly in 1973.

To add ammunition to its argument, SPI surveyed plastics processors in the U.S. to assess the effect of resin shortages on production and employment. According to the poll, 73 of the 159 respondents have cut back their operations by an average of 23%, and 52 have laid off an average of 25 employees each.

Water quality laws need fleshing out

"Believe it or not, industry wants Public Law 92-500 to work," Dr. Monte C. Throdahl, Monsanto's vice president for technology, told government and industry representatives at a conference on industry and clean water, sponsored by Midwest Research Institute last week in Kansas City, Mo. As it stands, he added, the 1972 Water Quality Act appears to be a skeleton, not an enforceable system.