

'Downwind Cases' In Vinyl Chloride Cancer Scare?

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THE vinyl chloride cancer scare has jumped the fence from grimy factories to surrounding neighborhoods with frightening new statistics from Connecticut. It ultimately may be tracked into the homes of almost every American consumer.

The mystery surrounding vinyl chloride suddenly deepened late last month with the first figures showing what may be two confirmed cases of people who developed liver cancer — not because they worked with the plastic chemical but because they lived near plants where it was produced.

Officials at the National Institute of Occupational Safety and Health are calling them the first "downwind cases." The deaths occurred in the towns of Bridgeport and Stratford among people who lived as far as 2½ miles from vinyl chloride plants in the last 30 years.

One of the Connecticut victims was a housewife. The other was identified by the government as a Puerto Rican plasterer who immigrated to New York and later lived — and died — in the vicinity of one of the Connecticut plants.

The same figures from the Connecticut cancer registry also show two other cases of liver cancer that have been confirmed as the first incidents involving secondary exposure. These people worked not with the basic vinyl chloride gas but in turning its powder or pelletized version — called polyvinyl chloride — into consumer products.

Although only about 6500 U.S. workers are employed in plants where basic vinyl chloride gas is handled, about 700,000 come into contact with it in its later stages while turning the widely used plastic into everything from seat covers to briefcases.

The health implications for that industry only now are beginning to be realized.

And the hazards to people living near plants where vinyl chloride is processed are only just being discovered. Health officials do know that about 6 per cent of the six billion pounds of vinyl chloride gas produced in the United States every year escapes into the air — usually through factory smokestacks.

The Environmental Protection Agency recently surveyed seven chemical complexes in Kentucky, Massachusetts, Louisiana, California, Ohio, Delaware and New Jersey and found no evidence of an imminent health hazard; but it stresses that its findings were sketchy and it told the \$12 billion-a-year industry it should take immediate steps to reduce neighborhood exposure to the lowest practical level.

For the average consumer who may be wearing, carrying, using or otherwise living with some polyvinyl chloride product almost every waking moment, the health implications are less clear but no less a cause for concern.

So far, basic consumer exposure to vinyl chloride gas has been limited to aerosol sprays. It was used as a propellant in a variety of household aerosol products until as late as March.

So far the government has forced the recall of hundreds of thousands of cans of hair sprays, pesticides, wig cleaners, dog clipping groomers and other products that used the gas. It is looking at still others such as paint sprays and cleaning compounds to determine if enough remain in the marketplace to warrant action.

The danger here, particularly where hair sprays are concerned, is that users in confined spaces — such as bathrooms — could be subjected to doses of the gas in heavy concentrations similar to those that have produced cancer in laboratory animals.

It was in the laboratory that vinyl chloride's potential as a carcinogen first was unearthed. What had been suspected for years was suggested strongly in 1970 by a researcher in Rome, Dr. P. L. Viola. But his findings were subject to dispute and largely ignored.

More persuasive evidence came from Prof. Cesare Maltoni in Bologna, Italy, who conducted a study funded in part by the chemical industry. Those results came out early in 1973. But the Institute of National Occupational Safety and Health says it was unaware of Maltoni's work until January, when it learned of the first confirmed deaths among U.S. vinyl chloride workers.

That important turning point is credited to Dr. John L. Creech Jr., physician at the B.F. Goodrich plant in Louisville, Ky. He discovered two workers at the plant had died of a rare cancer — angiosarcoma of the liver. On checking further, he found a third case in the records.

The disease is so rare that only about 25 cases a year normally could be expected in the United States. Three in one plant was a startling discovery, and Creech alerted the government Jan. 22.

Since then this log of death and disease has emerged:

—B. F. Goodrich plant, Louisville, seven cases, five fatal.

—Goodyear Rubber Co. plant in Niagara Falls, N.Y., three cases, all fatal.

—Union Carbide plant in South Charleston, W. Va., two cases, one fatal.

—Firestone Tire & Rubber plant in Pottstown, Pa., one case, fatal.

—A General Electric Co. plant in Bridgeport, Conn., where plastic was processed, one case, fatal; another plastics fabricating plant in Stratford, Conn., one case, also fatal.

That adds up to 15 U.S. cases, 12 fatal. In addition, two cases have been confirmed in West Germany, two in Sweden and one each in Great Britain and Norway, for a worldwide total of 21.

The outside-the-plant cases in Connecticut, however, ultimately may prove the most significant since many sections of the country have been bombarded with industrial pollutants from vinyl chloride plants for years.

In addition to the two deaths, Connecticut cancer listings show two other cases of angiosarcoma but they are described as occurring in people who moved about from town to town. No firm link to vinyl chloride exposure, either at work or by accident of residence, can yet be proved.