

Chemical Tied to Defects

By William Greider

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Workers or consumers exposed to vinyl chloride fumes may suffer genetic damage which will be passed on to their children in the form of physical defects, a Senate Commerce subcommittee was warned yesterday.

Dr. Irving J. Selkoff, cancer researcher and president of the Society for Occupational and Environmental Health, cited three recent studies which suggest that vinyl chloride, used in thousands of plastic products, may be not only a cancer-causing agent but "mutagenic" — creating mutations.

Selkoff's assertion assigns a new element of hazard to the substance which is the basic ingredient in a wide range of domestic products — from plumbing pipes to phonograph records, from plastic wrap used for supermarket produce to upholstery in automobiles.

Earlier this year, it was established that inhalation of vinyl chloride fumes could lead to a rare form of liver cancer among workers or neighbors of the factories. It might even affect consumers if they used certain aerosol spray cans that were fueled with the substance. Research has not yet settled conclusively whether there is also a general danger from the variety of polyvinyl chloride products which are derived from vinyl chloride.

In the meantime, three government regulatory agencies have moved in various ways to restrict pollution from the vinyl chloride plants and to prohibit the use of the chemical in such products as hair sprays and pesticide spray cans.

An industry representative, Dr. Theodore R. Torkelson of the Manufacturing Chemists Association, denied that any "mutagenic" effect on human beings has so far been established by genetic side effects exists and is being studied.

The research cited by Selkoff yesterday included bacteria studies in Sweden; con-

firmed in the United States, which showed mutations when exposed to vinyl chloride. Samplings of human experience are fragmentary at this point, he warned, but they also "give grounds for concern."

At Mt. Sinai Medical School in New York, he said, examinations of 11 vinyl chloride workers found "chromosome changes to be present considerably more frequently than expected." The Ohio Department of Health, Selkoff added, found a pattern of increased birth malformations in three counties where vinyl chloride plants are located.

Selkoff conceded that these findings are preliminary and not conclusive, but said they add to the alarm over expo-

sure to a substance which has become a major ingredient of American manufacturing since World War II.

About 6,500 workers are involved in manufacturing vinyl chloride and its conversion into polyvinyl chloride, but more than 1.5 million men and women work in processing factories where the plastic is made into various articles—the area where the danger is still in debate.

Selkoff said yesterday that his study of a polyvinyl plant in Niagara Falls, N.Y., found significant impact on workers' health, a rate of death due to hemangiosarcoma of the liver which statistically was 1,000 times greater than normally expected.

Ralph L. Harding Jr., presi-

dent of the Society of the Plastic Industry, testified, however, that no research has yet established a broader danger than the direct exposure by inhalation. That warning, he noted, was first raised by the industry itself when a doctor for B. F. Goodrich Co. discovered a recurring pattern of deaths among workers at the Louisville, Ky., plant — four victims of the rare liver ailment.

Yesterday's hearing was held by Sen. John V. Tunney's subcommittee and, though his staff aides denied it, the subject seemed aimed at influencing legislation on "toxic substances" which has already passed both House and Senate and is now before a conference committee.

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