By Philip M. Valley

Workers and Scientists Versus Cancer

THE RECENTLY CONFIRMED 14 cases of a rare liver cancer among U.S. vinyl chloride (VC) workers has caused heightened concern among unions, scientific investigators, public and occupational health officials, not to mention the apprehension of thousands of workers themselves.

"There's no use denying it. We are faced with a new occupational disease," said John P. O'Neill, Senior Scientist of the Occupational Safety and Health Administration (OSHA).

Intensive interest developed when Dr. John L. Creech, a B.F. Goodrich chemical plant physician in Louisville, Kentucky, noticed large numbers of serious liver ailments among the workers, and further investigations revealed five deaths within the last six years due to a vary rare disease.

The disease is angiosarcoma of the liver, so rare that only one in 75,000 deaths was due to it. The dead men had an average exposure of 19 years to vinyl chloride (VC), a gas that is converted to poly-vinyl chloride (PVC), a powder from which many plastic products are made. The gas is also used as a propellant in hundreds of aerosol sprays which include cosmetics, insecticides and other household items.

Research uncovered the fact that deaths from this disease had occurred not only at Goodrich but at Goodyear Tire and Rubber plant at Niagara Falls, N.Y.; Union Carbide in South Charleston, West Virginia; and Firestone and Rubber in Pottstown, Pa.

Since the first cases reported earlier this year, four more have been discovered in a search of New York and Connecticut cancer registeries. But, unlike earlier cases involving workers directly handling VC or PVC, one of the new cases was a man who for 30 years, operated machines that processed PVC-derived plastics. Another was a woman who lived four blocks downwind from a polyvinyl chloride plant.

At issue now is the level of exposure that VC-PVC workers endure. U.S. levels were lowered, after Italian investigator Cesare Maltoni's animal studies in 1970 showed tumors occurred when they were exposed to levels of 500 and 250 parts per million square feet.

The American Cancer Society has already confronted the problem of suspected cancer-causing agents in the environment—which the World Health Organization suggests are implicated in 85 percent of all cancer—with the establishment of the Environmental Cancer Research Project. The research effort, in close cooperation with many unions, is under the direction of Drs. E. Cuyler Hammond and Irving Selikoff.

Of critical concern, the two cancer experts recently warned, are the many years that pass between exposure to cancer-causing agents and the appearance of the disease.

"Cancers we are seeing now had their origin 15 to 35 years ago," they said. "Prevention of cancer in the year 2000 is now the order of the day in 1974."

Workers and their union leaders, as well as numerous companies, have reacted by cooperating in numerous study projects on occupational exposures. Moreover, the AFL-CIO Industrial Union Department Safety and Health Committee has pressed the Department of Labor for stricter enforcement of the Occupational Health and Safety Act. The AFL-CIO has filed suit in federal court to prevent the giving of enforcement powers to the several states where it is feared they will be watered down. In addition, the AFL-CIO is backing a Congressional bill (S.2008) that would create nationwide federal minimum standards of medical care and rehabilitation for victims of industrial diseases and accidents.

It is the opinion of Dr. Umberto Saffiotti of the National Cancer Institute that there are no safe levels of exposure to chemical carcinogens. 'It may take anywhere from 10 to 20 years between initial exposure to most of these carcinogens and the appearance of a cancerous lesion."

The dilemma facing workers like the VC-PVC men is a bitter one. "What's their option?" asks Anthony Mazzochi, the union's legislative director. "Work and eat today so they can die twenty years from now? Today it's liver cancer. Tomorrow—who the hell knows?"

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M. 40,000

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At the same time, B. F. Goodrich, Akron, announced "the most intensive" R & D program in its history—a multimillion-dollar effort involving over 100 experts—to reduce "to the lowest possible level" losses from and thus exposure to vinyl chloride in manufacturing operations. According to Goodrich's Chemical Div. president, Anton Vittone, "The proposed standard of no detectable level of exposure does not appear to be possible with the current state of technology and, if imposed, could displace not only the 6500 vinyl chloride monomer and PVC production workers, but also hundreds of thousands of other employees in the companies which use PVC."

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B. F. Goodrich, Akron, Ohio, aims at cutting vinyl chloride losses to the lowest possible levels by undertaking the most intensive research and development program in its history. According to the company, however, the proposed standard of no detectable exposure level does not appear possible with present technology and, if imposed, could displace not only 6500 vinyl chloride monomer and polyvinyl chloride (PVC) production workers, but also hundreds of thousands of other employees in companies which use PVC.

B.F.Goodrich

TO: R. B. Downey

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