

PVC: Hindsight in Perspective

by Ralph L. Harding, Jr.

In early 1974 B.F. Goodrich announced publicly that it suspected vinyl chloride of having contributed to the deaths of three workers at its Louisville plant from angiosarcoma, a rare type of liver cancer. Industrial health specialists around the world immediately rushed to their libraries to scour the scientific literature for past articles on the health effects of vinyl chloride inhalation. They found little to indicate a problem.

There was a 1949 study of 73 workers in a Russian plastics fabricat-

ing factory in which the authors found evidence of "more or less marked hepatitis." Polyvinyl chloride was not produced there, but PVC was plasticized with, among other chemicals, polychlorinated biphenyls. There were additional animal experiments performed from the mid-fifties onward, notably at Dow Chemical in 1961.

In retrospect it is agreed by government, industry, and the medical profession that, knowing what we do today about vinyl chloride, we should have paid more attention to the relatively scanty and incomplete information available 15 or so years ago. That we did not do so is indeed a tragedy, and the temptation to irrationally assess blame for this failure has proven too strong for some critics of the industrial health system in this country. As would be expected, the vinyl chloride industry itself has been the prime target of this criticism, which has extended to speculation that the industry had previous knowledge of the hazards of VC and that it purposely withheld this information from government officials, its employees, and the general public.

This is quite curious, in light of the fact that, as the record clearly demonstrates, the majority of the medical research on VC conducted to date (and essentially all of it conducted before 1974) was industry sponsored, that it was a member of the industry who made the first tenuous connection between VC exposure and angiosarcoma in humans, and that this information was announced publicly. In fact, were it not for the actions taken by industry from 1970 onward, we might still today know next to nothing about the

health effects of VC inhalation.

Let us take a brief look at the record. In 1966 a reversible disease of the bones of the fingers called acroosteolysis was discovered among some heavily exposed PVC reactor cleaners. Prompt industrial hygiene efforts by the PVC industry quickly eliminated this problem. However, it was felt that additional research into the cause of this disease was needed. Accordingly, Dr. P.L. Viola began a series of VC inhalation experiments, employing exposure levels as high as 30,000 ppm. Dr. Viola produced cancers of the skin, lung, and bones in the test animals. His findings were reported publicly at the Tenth International Cancer Congress in Houston in 1970 and were published in a leading medical journal in 1971. While some scientific critics questioned the purity of the vinyl chloride used in the experiments and the unrealistically high levels of exposure employed, this was, nonetheless, the first time that VC exposure had been linked with cancer. Then what happened? The federal government did nothing. Organized labor did nothing. The so-called "independent" scientific community did nothing. The news media completely ignored the story.

The only group that took action was the industry. Acting independently, both the European manufacturers of VC and PVC resin and their American counterparts (acting through the Manufacturing Chemists Association) began planning sophisticated animal inhalation research projects and epidemiological studies of workers who had been exposed.

In the United States, both research projects—the animal work at Bioscience Laboratories and the workers study at Tabershaw-Cooper and Associates—were announced publicly. A condition of the research was that the results,

ANSWERS YOU THOUGHT YOU'D NEVER FIND!

Would it surprise you to learn that all the answers you thought you'd never find are already within your consciousness?

Paramahansa Yogananda, author of *Autobiography of a Yogi*, said, "You should transfer your attention from failure to success, from worry to calmness, from mental wanderings to concentration, from restlessness to peace, and from peace to the divine bliss within. When you attain this state of Self-realization, the purpose of your life will have been gloriously fulfilled."

Self-Realization Fellowship teaches you how to apply meditation to find your answers and the wisdom necessary for successful living in today's complicated world.

FREE BOOKLET

Self-Realization Fellowship	52G
3830 San Rafael Ave., Dept.	
Los Angeles, Calif. 90065	
Please send me a free copy of your booklet "Undreamed-of Possibilities."	
NAME _____	
STATE _____	
CITY _____	
STATE _____ ZIP _____	

Ralph L. Harding, Jr. is president of the Society of the Plastics Industry, Inc.

25270001

1111