

Legacy of 2 vinyl chloride plants

Ex-workers still face higher risk of cancer

By Karen E. Henderson

The closing of two vinyl chloride plants in Painesville Township in 1970 and 1977 left a time bomb of potential health problems among former workers, health officials believe.

Federal researchers say exposure of workers to vinyl chloride at Uniroyal Inc. and at Robintech Inc. left many with the unhappy prospect of being in an extremely high risk group for a variety of cancers. Health officials say many of the forms of cancer may not show up for 20 to 30 years.

Federal investigators say there is a strong indication the plants contributed to an unusually high rate of birth defects and miscarriages among area residents when the plants were in operation.

A Plain Dealer investigation has found.

Many former plant workers were frequently exposed to amounts of vinyl chloride monomer, a cancer-causing liquid gas, that

far exceeded U.S. Occupational Safety and Health Administration standards.

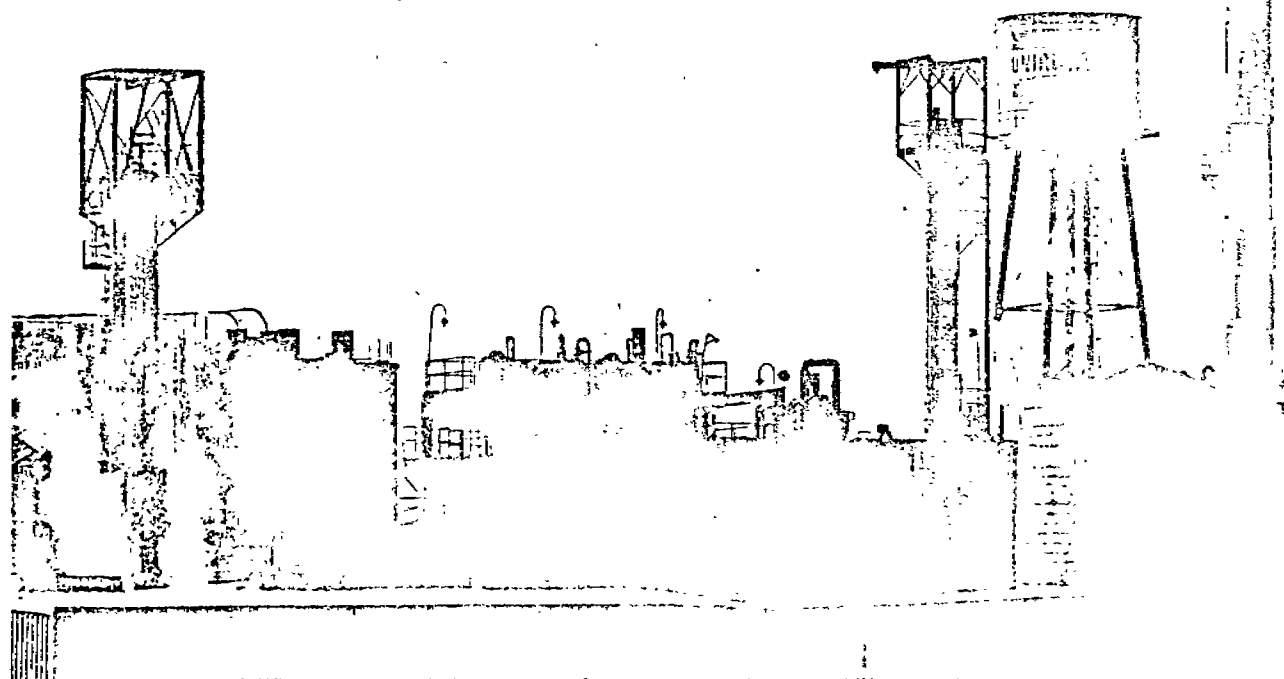
Workers were exposed to polyvinyl chloride (PVC), a chemical that also has been found to cause a variety of cancers.

At Robintech, workers who cleaned the reactors (containers in which batches were mixed) and were exposed to extremely high doses of vinyl chloride worked without protective equipment until about a year before the plant closed, when federal safety officials, at the urging of the local union, forced a change.

Vinyl chloride is used in making vinyl products, and PVCs are mainly used in making plastic.

Spokesmen for both plants said they were unaware of the dangers until 1973 or 1974, when early studies were released linking vinyl chloride to a rare form of liver cancer. They said every effort was then made to protect workers and

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The Uniroyal Inc. plant at 720 Fairport Nursery Rd.

Survivors ponder over workers' premature deaths

By Karen E. Henderson

Maxine Chandler of Perry still wonders if her husband's exposure to vinyl chlorides had anything to do with his premature death.

"We never knew if it contributed to his death," she said. "We talked about it."

Her husband, James, a former Uniroyal Inc. employee and president of United Rubber Workers Local 553, died in 1975 of brain cancer. He was 48.

He had worked in the plant since 1949 and left in 1970 to become a union field representative, she said.

In 1963, she had a miscarriage. She will never know if either the death or miscarriage had anything to do with vinyl chloride, a chemical that has been linked to birth defects and a variety of cancers.

Olen V. Roby of Geneva still mourns the death of his youngest brother, Vernon R., who died in September 1972 of Hodgkin's disease.

His brother was 27 when he died. "He was our baby brother ... married and with a little girl," Roby said. "It's something you always wonder about."

Vernon Roby frequently cleaned the reactors at the Robintech Inc. vinyl chloride plant, where he worked. He was exposed to some of the highest doses of vinyl chloride possible.

Leon A. Weitzel, Lake County director of air pollution control, is concerned about his exposure to vinyl chlorides. He worked for Uniroyal Inc. for 11 years.

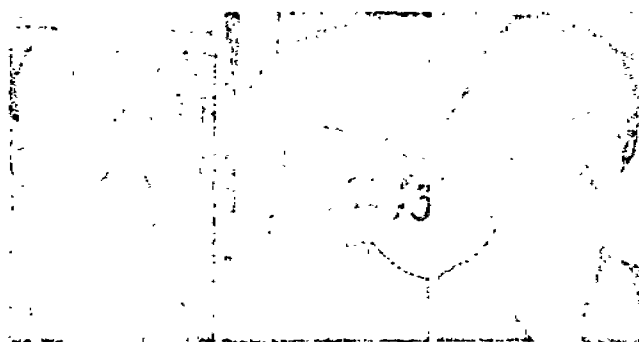
"I handled it like it (vinyl chloride monomer) was water," he said. Weitzel, a chemist, now makes sure he has an annual physical. He said people simply did not know how dangerous it was.

William R. Presley takes a fatalistic approach to the years he was exposed to high levels of vinyl chloride at Robintech.

"I don't worry about it," he said. "I know it can cause cancer, but I don't think there's any me worrying about it."

For about five years, Presley worked in an area that frequently registered an exposure to vinyl chloride monomer of from 25 to 50 parts per million (ppm). OSHA standards now ask chemical companies to strive for zero ppm.

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Mario

Maxine Chandler

William R. Presley

Linking liver cancer to vinyl chloride led to strict controls

Tough health experts have found vinyl chloride linked to a variety of cancers, the only one that can almost always be proven to be directly caused by it is a rare form of liver cancer called angiosarcoma.

Proving vinyl chloride caused another kind of cancer in an individual is complicated by the fact he may have been exposed to other cancer-causers, health officials said. But liver cancer is rarely caused

by anything else.

A pioneer in the research of liver cancer is Dr. Carlo H. Tamburro, professor of medicine and chief of digestive diseases at the University of Louisville. Tamburro was one of the first doctors to detect the link between vinyl chloride and liver cancer in workers at a plant in Kentucky.

Tamburro's research helped alert industry to the dangers. He has developed a plan for plants to reduce

exposure of their employees and for early detection of health problems.

A part of the plan includes a ranking of chemical exposure in the plant. It includes designating areas of higher and lower exposure and rating the chemicals in these areas.

Tamburro said case histories of employees are gathered and employees are ranked as to the amount of exposure. When a worker reaches

a certain level of exposure in a particular area, Tamburro said, he can be moved to an area of lower exposure or no exposure.

The program includes regular physicals and better testing methods.

His goal is to get industries to accept the program. "It costs about \$35,000 to set up and \$2 a year per employee to maintain," Tamburro said. He said since the pro-

gram has been in use in the Kentucky plant, there have been no cancer deaths in three years.

Kenneth Coss of Geneva Township, the assistant to the president of United Rubber Workers International in Akron and a former president of Local 553 at Uniroyal Inc., said the union and several vinyl chloride companies are funding cancer studies at the University of North Carolina.

Information gathered on workers in the plants is confidential, but the overall findings of the research are frequently published in medical and trade journals, Coss said.

He believes tightening federal standards controlling vinyl chloride is a major step in protecting the health of workers.

"There are still many other chemicals in these plants for which there are no standards," he said.

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to comply with safety standards

The Plain Dealer has learned that large amounts of vinyl chloride and PVC waste were routinely dumped in and around the plants. This type of dumping was not regulated until the Ohio Environmental Protection Agency until 1977, but EPA officials said the dumps are still in existence.

Dr. Edward F. Glot, hazardous waste coordinator for Ohio EPA, said he was unaware of the existence of the Robintech dumps and the plans to have it cleaned.

He said vinyl chloride fumes from the dumps would have increased air pollution at the time the plant is being built.

A report of the dumpings dated March 1974 in a 1974 study. Dr. Peter F. Infante, then a leader of the Ohio Department Health's division of chronic diseases, which noted an abnormally high number of birth defects in the Painesville area. The study related the birth defects to the presence of vinyl chloride plants.

Infante found that 20 of every 1,000 babies in the area were born with birth defects. The state average was 11.4 out of 1,000.

Current figures from the Ohio Department of Health show a decline in birth defects which seems coincide with the tightening of regulations controlling the use of vinyl chlorides and closing the dumps. Averages for Painesville are

now at about the same level as the rest of the state.

Infante, now director of the Office of Carcinogen Identification and Classification for the Occupational Safety and Health Administration (OSHA) in Washington, said exposure to either chemical can cause cancer.

Vinyl chlorides have been found to cause a rare form of liver cancer called angiosarcoma, and cancer of the lungs, lympho-hematopoietic system (blood and lymphatic system), central nervous system and brain, Infante said.

Polyvinyl chlorides and exposure to PVC dust has been directly related to high rates of lung, stomach and urinary tract cancers, cancer of the digestive system and breast cancer in women, according to National Institute of Occupational Safety and Health studies.

Infante said the amount of exposure seems to have a bearing on the latency period for cancer.

"Someone who has been exposed to high levels may contract the disease sooner than a person who was exposed to lower levels," Infante said.

"In some cases, the latency period may be as long as 20 to 40 years," he said.

Infante said as low an exposure to vinyl chloride as one part per million (ppm) has been found to cause cancer in animals. Current federal standards strive for zero ppm in plants and not more than one ppm in an eight-hour day or

not more than 5 ppm for 15 minutes on a given day.

Robintech plant workers who cleaned reactors said they were frequently exposed to daily levels as high as 35 to 50 ppm without the benefit of protective gear until about a year before the plant closed. Then they wore airpicks — self-contained breathing devices.

Infante said persons who were exposed to high doses of these chemicals should have regular medical checkups. "However, it is unfortunate these forms of cancer are difficult to detect until it is too late," he said.

He said even routine chest X rays probably would not pick up lung cancer, for instance, until it was too far along. Liver cancer is almost impossible to detect until it is too late.

Rosanne Apfeldorf, an OSHA epidemiologist, said exposure affects sperm, causing a higher incidence of birth defects.

Dr. Richard J. Waxweiler, chief epidemiologist in the biometry section at the National Institute of Occupational Safety and Health in Cincinnati, emphasized that not all workers exposed to these chemicals will get cancer. It simply means their risk of getting it is higher than that of an average person.

In 1973, Waxweiler studied 136 deaths among 1,294 workers at vinyl chloride plants all over the country, including a Uniroyal plant. He allowed a 10-year lapse from

the time of vinyl chloride exposure to the date of his study.

He found deaths from cancer among this group were 50% higher than the national average among every 136 deaths. He said seven died of liver cancer, the national average was 0.6; three of brain cancer versus an 0.9 average; 12 of lung versus a 7.7 average, and four of lymphatic and blood cancers versus a 2.5 national average.

When Infante's report on birth defects became public, Lake County's health commissioner, the late Dr. Fred C. Kluth, compiled his own report, which, he said, disproved Infante's report.

Kluth conceded a higher rate of cancer and birth defects, but he blamed it on the "relatively large proportion of persons over age 65 or the relatively large proportion of persons of low economic status."

Kluth said the prevailing wind direction would have blown pollution from the plants in the direction of Painesville only 8% of the time. He limited his findings to Painesville, but Infante's study took in a larger area, including the area around the General Tire & Rubber Co. plant in Ashtabula County.

"The possibility that these differences may be due to vinyl chloride in the air seems remote, but worthy of careful examination in the future by this and other means," Kluth wrote.

C.E. Rupel, chief financial officer for Robintech's office in Fort

Worth, Tex., said the company first learned of the health problems when it bought the plant in 1973.

"Our knowledge grew as the world became aware," he said. "I'm not so sure that there was a health hazard there that was proved to be associated with vinyl chloride."

Rupel said examinations were given employees regularly once the problem was discovered. He said he would have been the first to be notified if there were a health problem because he handled workers' compensation for the company.

Rupel said he was unaware of the levels of exposure of plant workers. He said he believed it was standard practice in the industry to clean the reactors without using protective clothing.

"I don't think anybody could assume we would put people to death in order to clean the reactors," he said. "The fact we sold the company would not mean we could sidestep any contribution (bad or good) we might have made."

Richard Shearer, industrial relations manager for Uniroyal, said the company's position was to conform with federal safety regulations.

"None of our employees has ever accused us of exposing him to something that made him sick," Shearer said. "We have never had a death from liver cancer."

He said the decision to close the plant was based on a number of economic reasons, including the cost of meeting federal standards

for vinyl chloride exposure.

Robintech was on 55 acres at 785 Hardy Rd. It had existed as a chemical plant for about 10 years and was first owned by Allied Chemical Corp. Robintech bought the plant in 1970.

Robert Deen, OSHA industrial hygiene supervisor, said the plant was first cited for violating vinyl chloride standards in 1975. It continued to be in violation on numerous follow-up inspections.

About a year before the plant closed, Heiser said, the plant had a standard of 25 ppm. The standard was lowered to the current level, but the company was unable to comply.

When the plant closed, a company official was quoted as saying it would have cost \$1 million to comply with federal standards. He said the company, a producer of plastic resin used for vinyl, was losing money and could not justify the large expenditure.

It was purchased by Georgia-Pacific Corp., a forest products giant which had expanded into the chemical business. It has been idle since the purchase and is expected to begin producing polystyrene within two years.

Uniroyal is at 720 Fairport Nursery Rd. and operated its vinyl chloride division from 1947 until 1976. The rest of the plant is still in operation, producing rubber products.

OSHA cited Uniroyal in 1975 for failure to meet vinyl chloride standards.

Survivors ponder over early deaths of workers

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and they are cited for exceeding one ppm.

Presley said at least twice a month, he and other employees scraped off residue left in the reactors.

"Almost everybody did it because we were paid overtime," Presley said. For four of the five years he

worked in this section, he said he and other workers cleaned the reactors without any protective clothing until the union and federal inspectors forced a change. Workers were issued an airpack when they cleaned the reactors to keep them from inhaling the fumes.

"I had worked in it four years before I knew how dangerous it

was," he said. "I firmly believe they (Robintech) kept us in the dark as long as they could about how bad it was." Company officials deny this.

Mario Izzarelli, the former president of United Rubber Workers Local 886 at Robintech, said the union first became aware of the health problems when stories began

running in newspapers about cases of liver cancer caused by vinyl chloride.

Izzarelli said the company began giving employees physicals every six months. He said a few employees were found to have enlarged livers, and they were given liver scans. Enlarged livers also can be caused by other diseases.

"The whole thing scared a lot of people," he said. "We didn't realize how dangerous it was. The Hodgkin's death should have been looked into."

Charles W. Chidley of Eastlake recently was operated on for bladder cancer. Chidley is convinced his cancer had nothing to do with his years at Robintech. However, health officials list urinary tract

cancer as one that is linked to exposure to polyvinyl chloride, which was also present at the plant.

Former plant workers say they try not to worry, they are aware of the risks they face and the 20- to 40-year cancer latency period. "It's like having something unpleasant hanging over your head," one said.