Illnesses spurred regulations

Vinyl chloride, long believed to be a fairly benign chemical, first burst into worldwide headlines in 1974 when it was found to trigger a rare form of liver cancer called angiosarcoma.

The discovery of three angiosarcoma deaths at a BFGoodrich chemical plant in Louisville, Ky., set off a widespread search that turned up several dozen more angiosarcoma cases among industrial workers in the U.S., Canada and Europe.

This in turn spurred broader research that indicated vinyl chloride may be a factor in cancers of the lung, bladder, brain and pancreas. There is tentative evidence it may also cause birth defects.

Vinyl chloride is a colorless, sweetish-smelling gas at room temperatures but may be cooled into a colorless liquid.

It is the basic feedstock for manufacturing polyvinyl chloride, a plastic used in a bewildering array of products ranging from shower curtains to phonograph records to auto parts.

The great 1974 vinyl chloride scare came in the midst of a major expansion of Houston area plants that make or use the chemical.

The Houston area is one of the nation's leading centers for the production and use of vinyl chloride.

Discovery of the chemical's cancer-causing properties resulted in new federal regulations to protect both plant workers and surrounding populations.

Worker exposure was limited by the Occupational Safety and Health Administration to 1 part per million over an eight-hour period. The previous permissible exposure had been as high as 500 ppm.

In late 1976, the Environmental Protection Agency also set rigid limits on emissions from vinyl chloride and polyvinyl chloride plants in a step to protect the public.