

The Continuing VCM Hazard as Discussed With at least 13 deaths from liver cancer reported to date of workers exposed to vinyl chloride monomer and at least another two recent fatalities of workers in PVC fabrication plants, investigative activity has been hot and heavy on many fronts. For one thing, several companies are now providing means to monitor VCM in the air and a log of the analyses. TC Systems, Houston, for instance, offers a flame ionization detector providing a maximum sensitivity of 0.1 ppm with a detection capability of about 25 ppb. A maximum of 15 sample points located up to 1,500 ft away can be monitored and logged. A periodic report is said to include high/low readings and average concentration at each sample point on a shift basis. Price of this system runs \$15,000-20,000, depending on the number of sample points. The DeBell & Richardson Testing Institute, Enfield, Conn., also provides a service in this area, analyzing VCM in air, resins and products. Less than 1 ppm is detected by gas chromatography, says the company's Dr. Myer Ezrin, manager of analytical service.

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."

Along these lines, A. D. Little, Inc., Cambridge, Mass., just released preliminary findings of an SPI-sponsored economic impact study on the vinyl business in its time of crisis. More than 1.6-million workers could lose their jobs if vinyl chloride and PVC producers had to shut down because they could not meet the OSHA-proposed "no detectable level" of exposure in plant air. Should this business be shut down, the SPI is lost sales and production, says the ADL study, would be a staggering \$63-billion, at least \$35-billion of which would be in the automotive industry, where job losses could exceed 600,000, and another \$14-billion in the construction market, where job losses could top 500,000.

PVC producers, it seems, could perhaps soon live with VCM exposure levels of 25 ppm, although they are said to be experiencing some difficulties in meeting even the temporary standard of 50 ppm.

Not only OSHA, but the Environmental Protection Agency (EPA) has also gotten involved. A recent SPI report said that EPA may be considering a standard.

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It is not possible a PVC plant and a level of 20 ppb at the fence line—standards that won't be easy to meet, says SPI. An EPA spokesman, incidentally, recently said that the agency saw "no scientific evidence of an imminent hazard to people living near PVC-producing plants."

It also is possible that PVC fabricators may be brought under a permanent VCM-level standard, although very preliminary data indicate that in most fabricating plants "VCM is either zero or at a trace level in the manufacturing area. It has been measured in the storage and mixing areas in low quantities (1-5 ppm)," reports SPI.

Monsanto Joins in PS, SAN Price Hikes Following last month's price increases in polystyrene and SAN by several of the major producers (PI, June 74, p. 29), Monsanto now adds its name to the list. The company has boosted natural GP PS by 4½¢/lb to 29¢/lb, medium-impact PS by 4½¢/lb to 30¢/lb, high-impact PS by 3½¢/lb to 30¢/lb and high-impact/heat-resistant PS by 3½¢/lb to 31¢/lb. All prices are for natural resin in bulk hopper-car quantities. At the same time, says a spokesman, natural SAN in 55 lb bag shipments rises 5¢/lb to 36½¢/lb.

Cosden has also gone along with the price boosts, it was learned at press time. Here are this company's new prices in hopper-car quantities: GP PS, 28¢/lb; medium-impact, 29¢/lb; high-impact, 30¢/lb; high-heat/high-impact, 31¢/lb.

Phenolic Compounds Rise 3½-6½¢; Resins Up 6-18¢/Lb Following an overall industry-wide increase in the cost of phenol, Reichhold Chemicals, the Durez Div. of Hooker, and Union Carbide have all raised the price of GP phenolic molding compounds by 3½¢-5½¢/lb, leaving these grades at a new high of 41¢/lb for all three companies. Additionally, Durez hiked the price of phenolic closure materials by 6¢ to 11¢/lb and other specialty single-stage molding compounds by 6½¢ to 12¢/lb. An increase of 8-16¢/lb on all industrial and foundry resins brought typical grades of these phenolics to 33¢ and 37½¢, respectively. An equal hike at Carbide left vinyl phenol resins averaging 25¢/lb and standard pulverized types ranging from 50 to 55¢/lb. Heat-resistant phenolic molding compounds went up 7½¢ to 44¢/lb at Carbide, while these and impact grades studied at 41¢/lb at Reichhold (a 3½¢/lb increase that keeps them in line with GP-type phenolics). At press time, spokesmen for Allied and General Electric said they anticipated no price hikes in this area.

As for other materials likely to be affected by higher priced phenol, the word from major suppliers (Allied and GE in epoxy, and GE and Mobay in polycarbonate) is that prices seem stable at present.