

VCM Mailing List

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 G. W. Fletcher - Spgfld. - 1870
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Health Hazards

E. P. Wheeler

ACS, UNIONS URGE ADOPTION OF VC STANDARD; INDUSTRY CONTINUES FIGHT

There is need for closer scrutiny of industry claims that a nondetectable level limit for vinyl chloride (VC) in the workplace is infeasible, Anthony Mazzocchi, citizenship-legislative director, Oil, Chemical, and Atomic Workers International Union, told continuing Labor Department hearings on July 9, in Washington, D.C.

The hearings, continuing from the week of June 24 (Current Report, July 4, p. 115), are being held to develop a record for the Secretary of Labor to determine a final standard for workplace exposure to vinyl chloride.

Mazzocchi urged adoption of the proposed Occupational Safety and Health Administration VC exposure standard (Current Report, May 9, p. 1539) by the proposed effective date of October, 1974, "so that those plants that can meet this level, will be required to meet it.

It will be a tragedy if OSHA adopts a "common denominator" standard that "everybody" can meet so that those plants that can go further are under no incentive at that time to do anything more, Mazzocchi said. For those plants which cannot genuinely meet a nondetectable level, the variance procedures of the Occupational Safety and Health Act should be utilized, he urged.

The OCAW opposes the vinyl chloride and polyvinyl chloride (PVC) industry's proposal that the fabrication segment be exempted from the proposed standard. He cited testimony from Robintech, Goodyear, Diamond Shamrock, Goodrich, and others as well as the National Institute for Occupational Safety and Health (Current Report, June 27, p. 83) that indicated there is detectable exposure among some stages of the fabrication process. He said there is "general agreement that known engineer-

ing solutions, such as ventilation and reduction of the residual monomer in the polymer, will reduce exposure to the nondetectable level." These improvements would not have come about had fabrication plants not been included under the emergency temporary standard and the proposed permanent standard, he said.

Additionally, Mazzocchi requested coverage of these plants so that reduction of VC exposure is maintained, and so those employees who have already been exposed will receive the benefits of OSHA's requirements for medical examinations and recordkeeping.

Mazzocchi said Dow Chemical testimony (Current Report, July 4, p. 115) indicated that its plants can meet such a level in monomer operations. "It is our hope that the proposed permanent standard would force the industry into a proper preventive maintenance program which will reduce exposure to VC to the nondetectable level," he said. He said the OCAW just reviewed monitoring data at the Goodyear Tire and Rubber Company in Niagara Falls, N.Y., from May 21 to May 28, and found the average concentration on all three daily shifts to have been 11 parts per million. The monitoring was for all hydrocarbons, so the actual VC would be less than 11 ppm, he said. This plant is old, established in 1946, has small reactors, and is an enclosed plant. "The Society for the Plastics Industry, Inc., proposed a 10 ppm TWA for 1976," Mazzocchi said, adding that this plant already comes very close to meeting this level.

The OCAW has not yet seen conclusive evidence that there are plants that cannot meet the nondetectable level by October 1974, and "we do not think that the industry has been fully candid with OSHA on this point during these hearings," he said.

Specific Recommendations

Mazzocchi outlined several specific recommendations for modification of the proposed standard in the areas of medical surveillance, records, reports, and respiratory protection.

He noted the "striking similarities in the record of OSHA hearings on asbestos in 1971. Industry used almost the same phrases, that the standard 'would cripple the industry,' 'is not economically feasible,' and 'cannot be achieved by any known engineering methods,'" he said. "None of these predictions came true because none were based on fact." These arguments were used "to hound the Labor Department into adopting a weaker standard," he said.

Mazzocchi was accompanied by union VC workers who described their experiences and cited problems with accuracy of company monitoring and difficulties in obtaining personal medical records.

Worker Attitude

Angelo Cefalo, special assistant to the president, International Association of Machinists and Aerospace Workers, said the VC problem is creating a psychological problem among workers.

A skilled VC worker said "his exposure to VC put him in the frame of mind that a process of incubation was setting up in his body, that the effects of his sniffing and

inhaling VC has begun to hatch something in his body that will slowly cause him death from cancer."

Workers know that failing a company-sponsored physical examination by a company doctor can mean a discharge which an unethical personnel director can set up successfully and make stick, Cefalo said. He urged that industry remove shackles from its medical directors, engineers, industrial hygienists, and all those in industry's jurisdiction whose brains are needed to save workers from death.

Toxicity in Fish

Cefalo cited the preliminary results of a study on the toxicity of VC in northern pike done by William C. Dolowy, professor of microbiology, Chicago Medical School, which noted the carcinogenic effect of VC in these fish and "the natural incidence of tumor produced by VC in nature."

ACS Endorsement

Dr. Stephen T. Quigley, Department of Chemistry and Public Affairs, American Chemical Society, said in the absence of data establishing a safe level of exposure to VC, and in the interests of public health and welfare, ACS endorses the proposed standard.

However, he noted, the ACS believes that the standard for employee exposure would be clearer if set at a minimum practical level capable of detection by a recommended method rather than at no detectable level.

ACS recommends a reasonable period of time be given employers to allow for the detailed engineering design and development of equipment necessary for full compliance with the standard, Quigley said.

Quigley said the ACS is concerned that increased reliance on ventilation methods as dealt with in sections (1) (6) and (n) of the standard "does not ameliorate the problem of the potential hazard to the general public." He recommended continuous monitoring in the vicinity of plants to insure maintenance of low ambient levels of VC.

ACS also called for clearer definitions of the word "vessel" in section (b) and emphasized that adequate labeling must be maintained to achieve the objectives of informing handlers and others.

Cancer Study

A three-point program to research effects of vinyl chloride and related compounds on the human body will be carried out by the Cancer Center, University of Louisville School of Medicine, Dr. Condit Moore, professor of surgery and oncology, and center director, said.

The program will be funded by B. F. Goodrich Company and will take one year to 18 months to complete, Moore said, describing the study that will involve the Goodrich plant in Louisville, Ky., where fatalities due to angiosarcomas of the liver were first reported early this year.

The study will include a medical surveillance program in which a clinical team from the university will formally screen, with specially-designed questionnaires and complete physical examinations, all employees of the Louisville plant, under the supervision of an eminent

hepatologist who will revise the protocol for laboratory testing instituted on all employees. Medical consultation will be provided from a panel of university specialists whenever required, he said.

Secondly, a registry for all cases of diagnosed or suspected VC-associated disease occurring at the plant will be established with the capability of being expanded throughout the industry and open to participation by other companies, Moore said.

The third element, a basic research program, will be designed to study the toxic and disease-producing effects of VC and related compounds, a program to be monitored by intramural and extramural scientific review committees.

Moore said also that a team of clinicians were formed and plans were made in the medical department of the Louisville plant to perform physicals and complete medical histories and special questionnaires on all employees beginning July 1. This special clinical study should be completed by the middle of August, he said.

Contact was made with other interested agencies concerning these plans, including the National Cancer Institute, the National Institute for Occupational Safety and Health and the Environmental Protection Agency. The long-range aspect of this program is periodic re-examination, re-study, and careful follow-up on all previous, present and future employees, he said.

Dr. E. Cuyler Hammond, vice-president and epidemiologist-statistician of the American Cancer Society, New York, N.Y., will be consultant for the program, Moore said.

Other Funding

In the area of basic research, 17 research proposals were received, and seven proposals were funded at relatively low levels to stimulate small pilot studies in the approved areas of research, Moore said.

Goodrich Exposure

John L. Nelson, vice president, manufacturing, B.F. Goodrich Chemical Company, said after extensive and intensive epidemiological investigation of all Goodrich VC monomer and PVC workers, no cases of angiosarcoma of the liver have been found in any location other than the Louisville plant.

Progress in reduction of levels of exposure were measured through the use of organic vapor analyzers, both portable and fixed, and based on hundreds of readings a day, he said. The average of these readings was reduced from about 35-40 ppm early this year, to about 12-14 ppm at present, he said, adding these readings range from 1-2 ppm to some excursions over 50 ppm. A summary of time-weighted average exposures by job classification showed considerable variation in TWA measurements ranging from below 5 ppm to 31 ppm on polymerizer charging operations, he said. Progress was made also in lead reduction, which Nelson called "the single greatest source of reduced VC levels."

New Goodrich Plant

Nelson said construction of a new PVC facility at the Louisville plant will begin about mid-1975. Preliminary engineering of this plant was started in late 1972, funds

were appropriated in July, 1973, and field construction work began early this year. "We expect vinyl chloride exposure levels to be lower than those currently existing in our PVC plants, but actual exposure levels will not be known until the fall of 1975," he said. The plant incorporates latest technology, but additional improvements resulting from on-going research and development will be made. "It is expected that some of these improvements will take up to 24 months after the completion of the developmental effort," Nelson said.

Goodrich has some 135 scientists and technicians at research and development facilities working on reducing exposure. "Our goal is to approach negligible losses of all VC from all sources," he said, adding there is no PVC production plant in the world operating in a completely closed polymerizer mode because of the buildup problem in reactors.

Goodrich opposes the proposed standard (Current Report, May 9, p. 1539). Achievement of a no detectable level is not technically feasible, he said. Neither is it safe to require VCM and PVC workers to wear respiratory protection for full eight-hour work shifts. "Thus, if the proposed standard is adopted, Goodrich would have no alternative but to shut down its monomer and PVC resin operations," Nelson said, reiterating the position of industry. He said Goodrich endorses the Society of the Plastics Industry, Inc., proposal (Current Report, June 27, p. 83) which advocates a stepped reduction in VC monomer work areas. "We set an internal goal of achieving a 25 ppm ceiling and 10 ppm TWA as soon as possible," he said.

Nelson urged OSHA to reconsider the requirements covering the use of impervious clothing, since such clothing presents a serious restraint on worker mobility and often exposes the worker to heat stress. Also, he urged that OSHA "give management the necessary flexibility to select and use the most appropriate respiratory equipment for worker protection. This could include the use of half-face air-purifying type protection," he said.

Rubber Manufacturers

William Miller, manager, corporate safety and workmen's compensation, Goodyear Tire and Rubber Company, recommended the adoption of three standards, one each for the producers of VC monomer, the producers of VC resin, and the processors and fabricators of PVC resin.

Goodyear "fails to see how OSHA can scientifically conclude that exposure to VC at concentrations of 50 ppm can constitute a serious health hazard to humans," Miller said.

He urged also further definitions of the word "released" throughout the proposal, of the word "contaminated," and of "detectable level" in 1910.931 (b) (6). Definitions of "emergency" are unnecessarily restrictive. Medical surveillance provisions should be similar to subparagraph (c) in the carcinogens standard, he said.

Johns-Manville

Richard P. Carter, director, government affairs, Johns-Manville Corporation, said a single approach for all industry is insufficient. J-M is the largest U.S. producer of PVC pipe and PVC pipe and pipefitting operations should not be covered under the standard, he said.

Coverage of these operations is unnecessary and inappropriate, he said. Carter recommended a specific standard for this segment of industry.

International Ramifications

Robert I. Martin, president, Rumar, Inc., said if the proposal is adopted it would open a "Pandora's box" in relation to foreign competition taking over the current production of fabricated PVC.

With the absence of control in foreign countries and U.S. industries subjected to unnecessary stringent controls, foreign companies, at the expense of American manpower and the already underpaid foreign employee, would "reap a bonanza at the expense of American labor," he said.

The hearings are expected to conclude this week.

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R. P. Wheeler

Tougher Vinyl Chloride Rules Are Good By Fall as Labor Agency Ends Hearings

By a WALL STREET JOURNAL Staff Reporter

WASHINGTON—Labor Department officials said they hope to issue new, tougher standards for handling vinyl chloride by Oct. 5, when the current temporary standard expires.

The department yesterday completed nine days of hearing on the proposed standard barring exposing workers to any "detectable" amount of the chemical. The hearings convinced many of plastics industry testimony asserting the proposed standard would be impossible to meet and would close down much of the industry.

But the hearings ended on a surprising note when an official of Merck & Co.'s Celcon Corp. described laboratory work showing that vinyl chloride could be safely

moved with air conditioning if workers wore masks, which Celcon makes. It may later be recovered and reused.

However, other industry officials at the hearings insisted that the findings didn't necessarily show how the technology could be used in an industrial plant, or how such plants would be to install.

The Labor Department in April issued a temporary standard cutting vinyl chloride exposure to 60 parts per million in the air, responding to evidence that exposure can cause cancer.

Dennis P. Hoyle, director of the Office of Standards Development for the department's Occupational Safety and Health Administration, said the results of the hearings indicate a continuing 30 parts per million level can be met by the industry.

He said the actual standard would be a compromise between what the industry and the government would accept. "No one's level would be above the part per million."

"There isn't any likelihood in my mind," he added, "that we're going to put the industry out of business."

Various groups of witnesses from industry, labor and government testified