

approximately 400 health standards for the workplace in the next few years (Current Report, June 13, p. 35). He predicted that there will be other important joint ventures with NIOSH under Section 8 (c) (3) of the Occupational Safety and Health Act.

There is very little duplication of effort between OSHA and NIOSH at present, OSHR was told. "However, we are obliged to study the data which NIOSH used in formulating their criteria. That much duplication is unavoidable," the spokesman said.

OSHA has no objection to the current NIOSH practice of issuing contracts for research-utilized in criteria documents. "Given the limitations of the present personnel ceilings at NIOSH, this is the only practical solution to issuing needed criteria documents," the spokesman added.

Health Hazards

FIRESTONE RECOMMENDS VC STANDARD IN NEW STATEMENT OF INDUSTRY POSITION

Worker exposure to vinyl chloride should be limited to 40 parts per million with a 25 ppm time-weighted average, the Firestone Plastics Company recommended during Labor Department hearings on the proposed Occupational Safety and Health Administration permanent standard on July 10.

T. C. Walker, Firestone Plastics president, said Firestone does not concur with the position advanced by the Society of the Plastics Industry, Inc., of a stepped-down reduction in exposure (Current Report, June 27, p. 83).

Walker said Firestone placed a purchase order for a constant sequential monitoring system to be installed as soon as possible in the company's two polyvinyl chloride plants, in Pottstown, Pa., and Perryville, Md. The cost of this equipment is in excess of \$500,000, Walker said.

Stating specific opposition to the OSHA proposal, Walker said no scientific study exists which establishes to what degree, if any, studies of the carcinogenic effects on rats and mice can be extrapolated to humans. He cited evidence showing it is entirely proper to inquire into the possibility that man is considerably less susceptible to angiosarcoma than rodents exposed to VCM.

"Clearly, the human deaths caused by admittedly high levels of VCM exposure not now permitted in Firestone's plants or industry generally, suggest nothing with respect to the effects on humans of the low levels of VCM exposure presently permitted in Firestone's plants and in the industry generally," Walker said.

Pottstown Study

Firestone commissioned a study of death certificates of deceased employees who worked in the Pottstown plant since 1947 (85 of 87 deaths were studied), and only the death of one employee was caused by angiosarcoma of the liver, he said. Other findings showed that among the 22 malignancies in the group of employees exposed to VCM, there was no difference in type of cancer in those exposed more or less than 10 years except for the one angiosarcoma identified.

Physical examinations and liver function tests are being

performed on current Firestone employees in both plants. No results are available yet, Walker said.

He cited a California study which concluded that VCM "is a very weak carcinogen rather than a potent one in humans and animals," and "it is possible to work with VCM in relative safety at the low exposure levels achievable by the industry." Citing carcinogen and asbestos standards adopted by OSHA, Walker said the Secretary of Labor rejected the concept of no detectable level in these cases.

Technology Study

Walker described professional engineering consultants' conclusions that Firestone would have no alternative but to cease VCM operations if the proposed standard is adopted. The studies confirmed indications that between \$50 and \$55 million would have to be expended by Firestone alone to attempt to achieve a no detectable level, he said.

Even though a majority of the PVC industry is capable of operating under the temporary emergency standard, with the use of air-supplied respirators, the industry will not generally be able to function under exposure levels below 50 ppm without making extensive and costly expenditures for new equipment and engineering changes over an extended period of time, Walker said.

Walker criticized OSHA's measuring exposure devices for all hydrocarbons instead of VC alone and said "Firestone would not interpret or comply with the VC permanent standard or any other standard established to safeguard its employees, except to the intent of that standard, not merely to the letter of law of the standard."

Consulting studies estimated as much as \$10 million will be required to insure Firestone operations are not exceeding the 50 ppm standard in any area through engineering means alone, Walker said. Despite obtained cost figures, Firestone is still recommending a 40 ppm ceiling and 25 ppm TWA.

Work Practices Objections

Francis Hoy, manager, Firestone's Perryville, Md., PVC plant outlined the company's objections to many work practices in the proposed standard, reiterating the position that the standard should be limited at this time to VCM producers.

Concern should be with VCM at the employee breathing level where it may be inhaled and not with the concentration levels that may occur inside a closed container where there is no employee exposure, he said, noting that some areas should be exempted from "regulated areas" provisions with respect to the OSHA carcinogens standard.

Operators and maintenance personnel wearing full face masks and carrying an air bottle or trailing air hose cannot provide the alert surveillance needed to avoid accidents, Hoy said. Respirators which are less cumbersome and provide the employee a greater degree of visibility, mobility, and comfort, such as canister type respirators, should be substituted, he said. There are also problems with protective and impervious clothing, he said.

Firestone introduced high pressure water systems to clean some reactors, sophisticated ventilation systems to

remove VCM from reactors prior to employee entry, and extensive ventilating systems to insure atmospheres inside reactors at concentrations below 50 ppm VCM, Hoy said. Reactor ventilation is in use in both plants.

Hoy said Firestone objected to other provisions of the proposed standard including those involving maintenance, mandatory shower requirements, and emergency provisions.

In lieu of the monitoring and special reporting provisions required by the proposed standard, the Secretary should require utilization of a constant monitoring system which will provide all monitoring and information necessary for protection of employees, Hoy said.

Firestone submitted extensive documentary evidence of its position in all aspects, including all scientific and consulting studies.

ORC Position

Wayne T. Brooks, Organization Resources Counselors Inc., Washington, D.C., said there should be at least three standards, one each for production of VC monomer, PVC resin, and processing and fabricating PVC resin.

Brooks urged the production of VCM be removed from the proposed standard and an American National Standards Institute Committee be convened on the subject. Because no emergency situation exists in this production, regular 6 (b) rulemaking proceedings could be commenced according to the Secretary's judgment, he said, urging a similar recommendation for polymer handling operations.

A standard with a scope and application section which does not include application to employees does not have the basic characteristic of an occupational safety and health standard, Brooks said. "Not only is the proposed standard fatally deficient for this omission, its scope would require work to be done and expenditures made which, because of no employee presence, would not be for the benefit of employee health." There are workplaces in which VC is manufactured, reacted, released, repackaged, stored, or used where there is no employee exposure, or where, by operational changes, employee exposure will be eliminated. Such workplaces should be excluded from the application of this proposal, he said.

Brooks said ORC is doing an epidemiological mortality study of workers exposed to low levels of VC. The study will be completed during 1974, he said.

Brooks urged a delayed effective date, and a phased application of various provisions of the permanent standard. He noted there are about 15 definitions "and that is about 15 too many." Definitions only confound confusion and are antithetical to simple grammar, he said.

Health Research Group

Consideration of economic feasibility is not an integral part of technological feasibility in setting standards, Andrea Hricko, Ralph Nader's Health Research Group, said.

Industry has offered no survey of technological feasibility on which an economic impact has been based and has simply assumed technological infeasibility, Hricko said.

Hricko noted the amicus curiae brief filed by the HRG in *Industrial Union Department, AFL-CIO v. Hodgson* in

the District of Columbia Circuit Court (1 OSHC 1631), subject to petition for rehearing, in which the same point is raised.

HRG emphasized the need for extrapolation from animal data to predict hazards in man rather than waiting for human evidence of disease to appear. "In the future it is hoped that evidence of disease and death in animals, rather than workers, will serve to trigger strict regulatory controls by the Department of Labor," she said. Hricko said because no dose-response relation can be extrapolated from existing data on carcinogenicity, no safe level of exposure can be established. "Only the removal of all human exposure will be successful in assuring that occupational cancer will be eliminated," she said.

Wrong Diagnosis

Bertram R. Cottine also of HRG, cited the case of a VC worker at B. F. Goodrich in Louisville, Ky., who was originally hospitalized for what was thought to be a bleeding ulcer. This diagnosis was eventually discounted. "Despite the abnormal liver function tests and his hospitalization, the worker was not reassigned to work free from VC exposure," he noted. On rehospitalization, surgery was performed to alleviate what was then diagnosed as toxic hepatitis secondary to chemicals. The worker, following additional hospitalizations eventually filed for workmen's compensation, was awarded a sum, and later filed again. He was awarded a second sum and two years later died. "Autopsy revealed angiosarcoma of the liver on the basis of gross and microscopic evidence," Cottine said.

Kessler Products

Gerald Kessler, corporate officer, Kessler Products Company, Inc., Youngstown, Ohio, a vinyl extrusion and moulding concern, said the complete plant should be monitored, not just the immediate extruder area. It should be mandatory that the results of the monitoring be routinely furnished to a central OSHA data bank along with medical records of all employees of the plant that are deemed necessary and practical by qualified medical and statistical experts.

"Our primary concern is to stay in business while maintaining the health of ourselves and our employees, and we feel the data accumulated in years to come will be of great help in formulating a logical working standard," Kessler said.

American Footwear

Norman V. Germany, senior vice president, American Footwear Industries Association, Arlington, Va., said although the AFIA is not in a position to evaluate the medical evidence relating to VC in the atmosphere, it is fully in accord with establishing safe working conditions for employees. However, he added, the final standard which is adopted for VC should reflect a PVC concentration level which plastics manufacturers can reasonably comply with. Unless PVC continues to be produced, the American footwear industry will be impaired seriously, he said.

Calgon

William Lovett, development department, Activated Carbon Division, Calgon Corporation, Merck & Company,

Inc., described laboratory work in which Calgon totally removed VC gas from air by filtering it through activated carbon.

Lovett said it can later be recovered and reused. Other industry representatives brought out in questioning that Calgon did not show how the techniques could be used in the industrial plant or how expensive it would be to install.

The hearings concluded on July 11. The hearing record will be kept open until August 23 which is the deadline for post-hearing comments. OSHA must submit to the Council on Environmental Quality the final environmental impact statement by September 5.

Appropriations

AIHA, IUD OPPOSE HOUSE PROVISIONS ON SMALL BUSINESS, INSPECTOR FUNDS

There are too few trained industrial hygienists in positions of leadership in the Occupational Safety and Health Administration, John A. Pendergrass, president, American Industrial Hygiene Association, told the Senate Appropriations Committee Subcommittee on the Departments of Labor and Health, Education, and Welfare on July 10.

"We are convinced that it is essential that people who are thoroughly versed in the principles and practices of industrial hygiene must be placed in influential positions throughout OSHA," Pendergrass said, urging that more industrial hygienists be involved in standards development, that health and safety consultative services to business be established, that an active continuing education program be maintained for OSHA hygienists, and that a program for educating and training employers be established.

Pendergrass presented AIHA's strong opposition to the amendment exempting small businesses from the Occupational Safety and Health Act, stating his hope that the Senate would modify this general appropriations bill for OSHA and NIOSH activities in order to remove this exemption (Current Report, July 4, p. 115).

Stressing the need to upgrade the National Institute of Occupational Safety and Health, Pendergrass recommended that NIOSH be required to report directly to an assistant secretary of Health, Education, and Welfare, giving Congress a better opportunity to evaluate the effectiveness of programs for which money is spent and creating greater public and Congressional visibility for NIOSH.

IUD Testimony

The Industrial Union Department, AFL-CIO, recommended that NIOSH and the National Institute for Environmental Health Sciences be expanded in occupational epidemiology and toxicology studies. Jacob Clayman, secretary-treasurer of IUD, opposed the present trend of contracting private firms to conduct this research and suggested that \$10 million in additional funds and 20 additional professional positions be absorbed into NIOSH and five positions and \$3 million in NIEHS so this function can be fulfilled.

The IUD opposed the cutting of funds available for

hiring compliance officers, making no provision for a higher grade average, while approving 150 new compliance positions. According to Clayman this House bill provision encourages and may even necessitate the hiring of less skilled inspectors.

Also the IUD spokesman criticized the House action which provided for state consultative services without availing additional funds for the purpose.

The IUD concluded with a recommended basic program of early detection and early care of workers diseased by asbestos exposure:

1. Registry of workers exposed to asbestos for one month or more since 1941. Because collaboration with labor and industry can be expected, most of the cost will be spent by the private sector.
2. Notification and development of medical screening and surveillance for high risk groups in asbestos product manufacturing and application.
3. Extension of available therapy to asbestos cancer patients, including treatment of cancers in early stages.
4. Development of additional therapeutic measures.
5. Creation of resource centers both within HEW and in the private sector.
6. Pilot studies in at least one resource center prior to initiation of national programs:

General Policy

STENDER REVEALS TO CONTRACTORS OSHA MOVES TO MAKE COMPLIANCE EASIER

A group of revised construction standards will soon be proposed, John H. Stender, Assistant Secretary of Labor for Occupational Safety and Health, told the Associated General Contractors on July 11 in Washington, D.C.

Stender said the proposed standard on trenching and excavations will be simplified by removing rules that require a foreman to be an expert on soils. He said OSHA expects to drop the requirement that a physician must approve the first aid kits that must be maintained at jobsites.

Because the steel beams used in skeleton steel construction have grown larger, the old standard of a floor or safety net 25 feet below steel workers was becoming almost impossible to follow, Stender said. As a result, OSHA recently changed that standard to 30 feet to reflect current industry practices.

Stender announced that the production of scripts and slides is underway for presentation in a short course in trenching and shoring techniques which OSHA is assisting the AGC in producing and refining.

OSHA published an updated copy of the construction industry standards last month to make them easier to use. Stender said also that the "rather tricky business" of drawing together all the standards that apply to construction is progressing. This calls for redrawing the applicable general industry standards in Part 1910 and setting them into the Part 1926 vertical construction standards.

Stender told the contractors that all of these projects should allow more time to concentrate on other concerns such as hazard identification and corrective action, which

two-story buildings at Jerome, Idaho. Following inspection by the Secretary's compliance officer, the employer was cited for four serious and two nonserious violations of the safety and health standards. Penalties of \$550 each for the four serious violations were proposed; no penalties were proposed for the nonserious items.

A serious violation of 29 CFR 1926.500(d)(1) was alleged, in that the employer failed to guard an open-sided floor 22 feet above the level below. The "floor" in question was the surface on which concrete forms and reinforcing steel were being installed prior to pouring the concrete which would comprise the permanent floor. First, wooden stringers were placed on the steel framework, and a solid surface of plywood installed on the stringers. Then core forms of corrugated metal were installed on top of the plywood, and reinforcing rods were wired into place. The concrete would then be poured. The question for resolution was whether the plywood surface and the corrugated metal forms constitute a "floor" within the meaning of the cited standard so that perimeter guarding is required.

At the hearing before Review Commission Judge Jerry W. Mitchell, the employer argued that it would be impossible to install perimeter guarding because the edge of the surface shifts as the work progresses. However, the compliance officer suggested methods for conforming to the standard. The surface was clearly a floor within the meaning of the standard, Judge Mitchell ruled, because employees were required to walk and work on it. The judge affirmed the citation and reduced the penalty to \$275.

Another serious citation alleged a violation of 29 CFR 1926.401(i) for failing to guard the exposed 220-volt base of an electric meter. Judge Mitchell reduced the degree of the violation to nonserious and assessed a penalty of \$50.

The other two serious citations and the nonserious items related to guarding and other safety requirements for woodworking saws. The serious violations were affirmed, and a penalty of \$200 was assessed for each. The employer withdrew his contest on one nonserious item, and the other was affirmed with no penalty being assessed.

Review Commission Chairman Robert D. Moran directed review of the judge's decision on the questions of whether the standard at 29 CFR 1926.401(i) is unenforceably vague and whether the citations were issued with "reasonable promptness" as required by Section 9(a) of the Occupational Safety and Health Act. In his brief, the employer also raised the matter of the applicability of Section 1926.500(d)(1) to the cited conditions. However, the commission affirmed the judge's decision in all respects without discussing these issues.

Commissioner Timothy F. Cleary, in a concurring opinion, expressed his view that the Commission lacks power to pass upon the vagueness of a standard. Cleary also noted that prior Commission decisions, including *Advance Air Conditioning* (1 OSHC 1626), hold that "reasonable promptness" cannot be considered by the commission unless raised by the parties at the hearing before the judge. Finally, Cleary discussed the floor guarding citation and associated himself with the judge's conclusions.

This ruling will appear in a future Decisions supplement.

General Policy

OSAHRC JUDGES LEAVE CONFERENCE SITE UP TO DETERMINATION OF CHAIRMAN

Future Occupational Safety and Health Review Commission conferences should be planned by the chairman in association with the director of judicial administration, according to a unanimous vote of OSAHRC judges attending the recent conference in Glendenen, Ore.

The judges' resolution was included in materials recently submitted by Chairman Robert D. Moran to the Senate Appropriations Subcommittee on Labor, Health, Education, and Welfare.

Also included was Moran's May 18 response to Commissioners Van Namee and Cleary which noted that the site had been determined in November 1973 and no objection was made to it at that time.

Moran said that neither commissioner offered any objection to the agenda. He objected to distribution to the news media of Van Namee and Cleary's letter to the judges expressing their reasons for nonparticipation in the conference (Current Report, May 30, p. 1669).

Health Hazards

~~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-

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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. *Selected data* ~~He said the OCAW just reviewed monitoring data from Goodrich, Fire and Rubber Company, 16 Niagara Falls, N.Y., from May 21 to May 28, and found the average concentration on all three daily shifts to have been 1.5 parts per million. The monitoring was for all hydrocarbons and the actual VC would be less than 1.4 ppm, he said. This plant, which was established in 1946, has small reactors and is an enclosed plant. The Society for the Plastics Industry has proposed a 10-ppm TWA for 1974. Mazzocchi said, adding that this plant already is 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. Condict 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.

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General Policy

STEIGER TO PUSH OSHA CONSULTATION IN HOUSE VOTE ON LABOR-HEW MONEY BILL

An additional \$5 million for states to provide on-site consultation for occupational safety and health will be sought by Congressman William A. Steiger (R-Wis) when the House takes up the appropriations bill for the Departments of Labor and Health, Education, and Welfare on June 27.

The bill includes \$100,816,000 for the Occupational Safety and Health Administration, \$31,986,000 for the National Institute for Occupational Safety and Health, and \$5,512,000 for the Occupational Safety and Health Review Commission. It would give NIOSH a \$6,138,000 increase over the fiscal 1975 budget request, but would reduce funds for both OSHA and OSAHRC.

Steiger's amendment would provide funds for OSHA to give the states, under Section 7 (c) (1) of the Occupational Safety and Health Act, to use in providing on-site consultation to employers. The funds would be made available regardless of whether the state had an approved state plan.

The Labor-HEW appropriations bill, reported out of the House Appropriations Committee on June 24, would reduce the OSHA 1975 budget \$1,684,000 from the Administration request, but would represent an increase of \$30,408,000 above the 1974 appropriation.

The committee recommended a 10 percent reduction in the amount requested for office space, and a reduction of \$1,427,000 for new positions. The 161 requested positions were approved, but the committee said that the positions are unlikely to be filled as early as contemplated. The committee also approved an additional 11 positions requested in the budget for staff to evaluate and accredit testing organizations.

In the OSHA budget, \$42 million will be used for matching grants for the 30 states whose plans are expected to be approved by the end of the fiscal year. An additional \$4 million is provided for matching grants for state statistical programs to develop injury and illness data.

The committee also approved an additional 150 positions to provide a total of 1,509 positions for federal enforcement activity. The new positions include 90 compliance safety and health officers, 30 industrial hygienists, and 30 clerical and supporting staff. The total number of compliance officers, including industrial hygienists, will increase from 800 to 920. An estimated 105,000 inspections will be completed, in worksites involving eight million employees.

NIOSH Funding

The committee recommended a \$6,138,000 increase in the budget request for NIOSH. In providing the increase, which would bring the 1975 level to \$31,986,000, the committee allowed for 95 additional positions. This would restore the positions eliminated in fiscal 1974.

NIOSH is expected to produce 26 criteria documents per year. The committee report directed HEW to fill all of the positions provided for in the bill, noting that a substantial part of the increase is to be used to address the problems posed by occupational exposure to petrochemicals and new energy sources.

Of the total increase provided, \$2 million is for the support of training grants, and the balance of \$4,138,000 is to support the additional staff, research, the development of criteria documents and technical services.

Review Commission

The bill includes \$5,512,000 for the review commission, a reduction of \$208,000 from the budget request, but an increase of \$622,000 over the 1974 appropriation.

The committee said it reduced the budget request primarily because the commission has never filled all of its authorized positions and does not plan to do so in 1975. The committee also reduced the budget request for payment of rental charges by \$20,000.

Health Hazards

PLASTICS INDUSTRY, UNIONS CLASH OVER PROPOSED VINYL CHLORIDE RULE

A standard requiring a stepped reduction of permissible levels of vinyl chloride in the workplace was recommended by the Society of the Plastics Industry, Inc., during a Labor Department hearing in Washington, D.C., on June 26.

The Occupational Safety and Health Administration scheduled the hearing to entertain comment on its proposed standard requiring "no detectable exposure" for vinyl chloride (Current Report, May 9, p. 1539).

According to the plastics industry, its recommended standard would be feasible over the next several years, assuming the development of new control technology.

The plastics industry's recommended standard included the following provisions for polyvinyl chloride resin plants:

(1) Effective October 5, 1974, a ceiling of 40 parts per million of vinyl chloride monomer and a maximum daily time-weighted average of 25 parts per million. Levels above 40 ppm would require the use of practical and effective respiratory protection.

(2) Effective October 5, 1975, a ceiling level of 25 ppm with no time-weighted average. Levels above 25 ppm would require the use of practical and effective respiratory protection.

(3) Effective October 5, 1976, a ceiling level of 25 ppm with a maximum time-weighted average of 10 ppm. Levels above 25 ppm would require the use of practical and effective respiratory protection.

For vinyl chloride monomer producing plants, the recommended standard includes the following provisions:

(1) Effective October 5, 1974, a ceiling of 25 ppm and a maximum time-weighted average of 10 ppm. Levels above 25 ppm would require the use of practical and effective respiratory protection.

(2) Effective October 5, 1975, a ceiling of 10 ppm and a maximum time-weighted average of five ppm. Levels above 10 ppm would require the use of practical and effective respiratory protection.

Anton Vittoni, president, B.F. Goodrich Chemical Company, and spokesman for SPI, said "such a commitment cannot be accomplished overnight since, in certain areas, the technology for accomplishing it is, as yet, not developed and, when developed, facilities must be installed requiring time for engineering, procurement, and installation."

OSHA Testimony

Daniel P. Boyd, director, OSHA Office of Standards Development, said the present judgment of the Labor Department is that vinyl chloride is a carcinogenic agent. As a basis for this judgment, Boyd cited recent data obtained by the Industrial BIO-TEST Laboratories of Northbrook, Ill., under contract with the Manufacturing Chemists Association, and the work of Professor Cesare Maltoni, Bologna, Italy, who testified at an earlier OSHA hearing on vinyl chloride (Current Report, February 21, p. 1189).

On June 20, Boyd said, Maltoni sent the following telegram to Assistant Labor Secretary John H. Stender:

"Our project on VC carcinogenesis includes 15 experiments one now completely ended, other ones already with results, other ones started few months or few weeks ago. The up to date results indicate that VC administered by inhalation produces in rats zymbal gland carcinomas, nephroblastomas, angiosarcomas of liver and other sites, skin carcinomas and probably hepatomas and neuroblastomas. Over 64 rats were exposed to 50 ppm for 1 year. We observed in the last 3 animals surviving 135 weeks from the beginning of the experiment 1 liver angiosarcoma, 1 intraabdominal angiosarcoma and 1 nephroblastoma. Moreover in the same group a subcutaneous angiopericitoma was observed. None of these tumors have been observed on control rats. In mice VC produces angiosarcomas and angiomas of liver and of other sites, pulmonary tumors, mammary carcinomas and skin tumors. Over 60 mice exposed to 50 ppm for 7 months at the present moment, after 49 weeks of experiment, we have observed 9 mammary carcinomas, 2 liver fibroangiomas and 2 subcutaneous angiomas. Only one lung adenoma was observed in one control mouse. Cesare Maltoni."

Boyd said there are essentially five manufacturing processes which involve vinyl chloride (VC) or polyvinyl chloride (PVC). The initial stage involves production of VC monomer. Next, the VC is polymerized into PVC, which is then compounded with additives. The fourth stage involves fabrication, or processing the compounded PVC into a finished or semi-finished product. The final stage involves the use or handling of the fabricated product.

Boyd said OSHA recognizes that exposure and control problems confronting employers in each of the stages may differ markedly from those in other stages.

Boyd asked that all supportive data be included with any recommendations for any level that differed from that proposed by OSHA of "no detectable level."

NIOSH Testimony

Dr. Marcus M. Key, director, National Institute for Occupational Safety and Health, said the results of NIOSH's first industrial hygiene survey will be available in about one month.

NIOSH asked the Department of Health, Education, and Welfare Committee to Coordinate Toxicology and Related Programs to define procedures for designing animal studies and to determine the compatibility of the estimated carcinogenic hazard with a socially acceptable risk. These procedures, when developed, should give guidance to experimental design of animal toxicological studies, he said. It is NIOSH's opinion, Key said, that the number of animals exposed in both the European and American studies have been too small to make statistically valid projections of no-effect levels.

Key noted the average age at death for the PVC production workers was 48.5, which is about seven years younger than the average age at death from liver cancer in the U.S. male population.

Key said of major importance are other possible health effects of exposure to VC. Among these is disabling liver fibrosis. This condition has been noted also in most of the U.S. cases of angiosarcoma of the liver associated with PVC production. It is not yet known whether the fibrosis is a precursor of angiosarcoma of the liver or to what extent it occurs among workers exposed to VC, he said.

He said as part of NIOSH's surveillance activities, it has compiled an extensive bibliography of the work literature on VC to provide guidance to the Labor Department and others who are concerned with the problem.

Key discussed also a NIOSH mortality study underway at five PVC production plants and a medical cross-section survey of current and former polymerization workers and controls being designed jointly by NIOSH and the Center for Disease Control.

It is the position of NIOSH that the only suitable respiratory protection devices for VC are supplied air respirators or positive pressure self-contained breathing apparatus, because the odor threshold of VC is considerably higher and a worker would have no indication as to whether he is or is not being adequately protected, he said.

NIOSH's recommended work practices standard was meant originally to be applied to the manufacture of synthetic polymer from VC. In view of the finding of appreciable concentrations of VC in fabrication operations and the reports of angiosarcoma in monomer production and in secondary manufacture, NIOSH recommends that exposure to this carcinogen be controlled whenever it is encountered in the workplace, Key said.

Organized Labor View

Peter Bommarito, president, United Rubber Workers, and spokesman for the AFL-CIO, said if PVC cannot be made and used safely, then the proposed standard must be replaced by an orderly procedure to phase out VC

production and find substitutes for its products, or to phase out the products themselves.

"We have listened to experts from all over the world; and we have concluded that the Government goal of 'no detectable level' for vinyl chloride is both necessary and feasible," Bommarito said. The OSHA proposal comes closer to the ideal standard than any yet proposed or adopted for any workplace hazard.

The implications of the Italian and German studies for the hundreds of thousands of women involved in PVC processing are a dimension that, despite union persistence, seems to be overlooked, Bommarito said. It is clear that PVC particles with unreacted monomer could pose an obvious threat to the unborn child as well as to the mother in a matter of minutes.

A decision must be made whether the proposed standard will be met (not can be met) or VC monomer production must be phased out, Bommarito said.

Industrial Hygiene Comments

Louis S. Beliczky, United Rubber Workers director, Industrial Hygiene, said certain operations, depending on the type of polymer, could result in concentrations of VC exposure approaching 1,000 ppm or more.

Beliczky listed several types of VC operations that provide more concern than others: PVC resin screening, sifting, sizing, blending, dispensing blended PVC into drums or hoppers, banbury mixing, drop milling, feed milling, three or four roll calendaring operations, and other related film, sheet, and coated fabric operations.

"It has been my experience during my visits to plants where the PVC products are manufactured to observe that little to no local exhaust is or has ever been provided to these operations," Beliczky said.

Beliczky recommended several changes to the OSHA proposed standard including the following:

- (1) Change one ppm plus or minus 50 percent to read one ppm plus or minus 0.5 ppm.
- (2) Under "Control Methods," the word insufficient should probably be changed to ineffective.
- (3) "Scope and Application" should apply wherever VC is present.
- (4) More specific information must be obtained to qualify decontamination.
- (5) Some reference should be made qualifying the method of analysis and sensitivity of an acceptable analytical method.
- (6) Absorption should specify inhalation, skin contact, and ingestion.
- (7) Continuous monitoring systems for VC should be required.
- (8) Any written emergency action plan should be submitted to OSHA for approval.
- (9) Positive fail-safe lockout procedures should be required.
- (10) Medical records should be retained for the lifetime of the employee.

"Our general impression is that some good objective judgment was used by the Office of Standards in preparing the proposed permanent standard for vinyl chloride," Beliczky said.

Health Hazards

DOL IMPACT STATEMENT ON VC DIFFERS FROM INDUSTRY VIEW ON PROJECTED COST

A preliminary assessment of the cost of compliance with the standard proposed for exposure to vinyl chloride (VC) indicates that the expenditures required will not be prohibitive, according to the Department of Labor Draft Environmental Impact Statement.

The standard was proposed by the Occupational Safety and Health Administration on May 9, and the Labor Department submitted the draft environmental impact statement to the Council on Environmental Quality on June 12. Deadline for comments on the statement is July 17.

The statement says the probable impact of the standard will be that, in addition to improving the quality of the work environment, the institution of control measures required by the standard will probably reduce the concentration of the vinyl chloride monomer in the ambient air.

The second major impact is the additional capital and other operating costs industry will incur in complying with the standard, the statement said. Compliance costs potentially threaten the existence of marginal firms, will raise prices for vinyl chloride products, and will encourage, to some degree, substitution of other products for vinyl chloride. The statement notes that offsetting these negative consequences is the fact that vinyl chloride is so central to many products that demand will be, at least in the short run, relatively unresponsive to price changes. Further, it states, costs in terms of medical expenses and diminished quality of life otherwise accruing to the worker will be internalized in the production process. Vinyl chloride, a petrochemical, is produced from irreplaceable natural resources, and reduced demand on these resources could be of merit, the statement said.

Substitute Materials

An increase in product costs may cause eventual substitution of other materials for vinyl chloride, the statement said. These include wood, metal, and rubber. Many of the substitute materials are in short supply, however.

Other Federal Actions

The draft statement said that since VC and polyvinyl chloride (PVC) are found in many places throughout society, many federal agencies in addition to OSHA have become concerned about possible exposures.

On April 26, 1974, the Environmental Protection Agency announced an emergency suspension of all pesticide spray products containing vinyl chloride and gave notice of its intent to cancel the registration of these products. At the same time, EPA requested that all existent stock of such products be recalled by the manufacturers (Current Report, April 25, p. 1480). The Food and Drug Administration took similar action (Current Report, February 28, p. 1224). Significant programs are underway to determine other areas where VC or PVC formulations should be regulated, the statement said.

It noted also that despite the fact that VC and PVC have been present in large quantities for many years, little

- Elimination of citations for first violations not involving imminent danger.

- Preclusion of using OSHA citations in civil litigation.

Congressman David Towell (R-Nev) testified that he had received many complaints from constituents concerning OSHA. Many of the complaints expressed the wish that OSHA be repealed, he said.

Among the areas relating to OSHA in which Towell urged consideration by the subcommittee were emphasis on the responsibility of the employee to obey safety and health rules and on-site consultation.

State Plans

NEW RULES GOVERN FEDERAL ENFORCEMENT IN STATES WITH APPROVED SAFETY PLANS

Federal enforcement of safety and health standards in states with approved occupational safety and health plans will be determined under regulations adopted June 20 by the Occupational Safety and Health Administration.

The regulations amend 29 CFR 1954 (Reference File 81:3401) by adding Section 1954.3 on the exercise of federal discretionary authority under Section 18 (e) of the Occupational Safety and Health Act (Reference File 71:1111).

The new regulations will require written federal-state agreements as to the operational status of each state plan. Prior to such a determination, however, the state must have enabling legislation, approved state standards, sufficient personnel, and provisions for review of enforcement actions.

The new section was adopted by OSHA without a public comment period prior to adoption (although comments are solicited up to July 20, addressed to the Associate Assistant Secretary for Regional Programs, Room 800, 1726 M Street, N.W., Washington, D.C. 20210) because "regulations dealing with statutory interpretations and policy statements do not require a public comment period prior to becoming effective."

Further public participation is considered "unnecessary" by OSHA because policy statements included in the regulations were discussed with the National Advisory Committee on Occupational Safety and Health at December 6 and December 20, 1973, and March 18, 1974, meetings.

OSHA said further public comments would be "impractical" because the discretionary authority guidelines should be carried out immediately "to assure adequate worker protection and the orderly development of federal and state relations."

Developmental Plans

The developmental status of approved state plans is a "fundamental" consideration in determining the manner and degree of exercise of federal enforcement authority, OSHA said. Reduction of federal enforcement in states with approved plans through exercise of discretionary authority under 18 (e) is not inconsistent with the concept of developmental plans, according to the regulations' preamble.

Departmental regulations set out in 29 CFR 1902.2 (b) (Reference File 81:3202) limit the developmental period to three years following "commencement of operations" under the approved plan. If the Assistant Secretary expects the state to meet criteria set out in Section 1902.3 within the three year period, he will approve the plan. However, he may not make an 18 (e) determination relinquishing the right to exercise enforcement authority until after one year of evaluation of the plan based on actual operations, according to the regulations.

"This does not mean that discretionary enforcement authority must be exercised over all the issues covered by the plan for the entire length of time it takes a state to complete its developmental schedule and operate for a full year."

Criteria for determining the level of federal enforcement authority is based on the premise that exercise of federal enforcement authority cannot be diminished before a state reaches a specified level in its development, according to the preamble. After it has reached the specified level, factors including effective utilization of resources throughout the country, relief from unreasonable duplication, and employer-employee rights conflicts must be considered.

State plan evaluations will be made throughout the discretionary authority period to aid in determining the appropriate level of federal enforcement including reinstatement where needed.

Guidelines

Guidelines for determining the appropriate level of federal enforcement for each state include enabling legislation, approved state standards, sufficient personnel, and provisions for review of enforcement actions in place as specified in OSHA Program Directive 74-11 (Current Report, May 30, p. 1670).

After all the above criteria has been met by each state, it will be considered "operational" and federal enforcement authority will be reduced. "Accordingly" and emphasis will be placed on monitoring as set out in 29 CFR 1954.

The state will conduct all enforcement activity including inspections in response to employee complaints in all issues where the state is operational. States will not be operational without enabling legislation enacted or if enacted legislation requires substantial amendments to meet 29 CFR 1902 requirements, or in issues where state standards are found not to provide overall protection to workers, or where sufficient personnel is lacking to enforce for a particular issue, or where there are no provisions for review of state citations and penalties including appointment of a review board and appropriate regulations in effect.

Monitoring

In addition to operational status guidelines, results of state plan evaluations under the monitoring system described in 29 CFR 1954 will be used to determine the level of federal enforcement for each state. Evaluation results will be used in the determination where evaluations have been made prior to operational status determination.