PPG INDUSTRIES

INTER-OFFICE CORRESPONDENCE

Date: May 6, 1974

From: Zeb G. Bell, Jr.

Location: 19 East

Subject: VCM - OSHA Inspection Guidelines

97.52

To: Messrs. A. G. DeMarco
A. T. Raetzsch

To assist you in anticipating an OSHA inspection for VCM operations, the attached guideline appeared in the BNA. Please note that exposures in excess of 50 ppm may result in imminent danger citations. A citation will be issued for failure to monitor the ambient air and/or the employees.

There are other points that should be read carefully and appropriate action taken.

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Attachment

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May 2, 1974

with the standard would be difficult is no defense to the charge, Van Namee said. The appropriate relief in such a situation is to seek a variance or an amendment to the standard.

In a concurring opinion, Commissioner Timothy F. Cleary expanded upon Van Namee's discussion of the Walsh-Healy Act, concluding that that statute did cover certain workplaces of the type in question. Cleary also raised the matter of "reasonable promptness" in issuing the citation on which review also was directed (see *Chicago Bridge & Iron Company*, 1 OSHC 1485 (1974), Current Report, January 31, p. 1103). Since the issue was not raised by the parties, Cleary said, citing *Advance Air Conditioning, Inc.*, 1 OSHC 1626 (1974), it cannot be considered at this late stage in the proceedings.

Chairman Robert D. Moran dissented in total from the commission's decision. Moran would vacate the citation because it was issued 83 days after the inspection, hence not with "reasonable promptness" as required by Section 9 (a) of the Act. This issue, Moran contended, is a matter of jurisdiction which can be raised at any stage of the proceedings. Moran also discussed at length the history of the Walsh-Healy standards, noting that they were of limited applicability and were neither well-known nor vigorously enforced. He questioned whether the standards could be regarded as "operative" or "in effect" so as to qualify as "established federal standards" under Section 3 (10) of the Act. Moran also disagreed with the commission's decision on the merits of the violation, arguing that the employer's claim of difficulty of compliance had merit, and that there was insufficient evidence of employee exposure to the hazard.

This decision will appear in a future Decisions supplement.

General Policy

OSHA STUDIES POSSIBLE PROCEDURES FOR VOLUNTARY ABATEMENT AGREEMENTS

Additional voluntary compliance agreements and the procedures to be followed in establishing them are being studied by the Occupational Safety and Health Administration.

The first such agreement was negotiated as a stipulated settlement to an enforcement action pending before the Occupational Safety and Health Administration. That agreement involved Continental Can Company's plans to provide feasible controls for noise at 83 plants (Current Report, April 11, p. 1411).

Members of the National Advisory Committee for Occupational Safety and Health have endorsed the abatement agreement concept and are studying possible procedures for the future (Current Report, March 21, p.

The agreements are addressed to industry's difficulties in developing and applying engineering controls to comply with noise, air contaminants, and other health and safety standards requiring engineering controls. In many cases more time is needed by companies to research and develop feasible engineering controls to comply with federal standards more effectively.

OSHA has determined that voluntary abatement agreements with one or more employers may be desirable where feasible engineering controls must be developed to comply with a standard and where personal protective equipment can be used during the development period.

The agreements would allow industry more time to redesign new equipment or modify old equipment under a specified abatement period outlined in the agreements.

As the controls are developed, they would be applied to abate health or safety standards specified in the abatement compliance agreements. In turn, this type of agreement would provide OSHA with available information on the feasibility of engineering controls for various federal standards which could be shared with other employers and which could help OSHA standards development.

It is anticipated that the agreements will cover workplaces only under federal enforcement jurisdiction.

Health Hazards

OSHA ISSUES INSPECTOR GUIDELINES FOR ENFORCEMENT OF VINYL CHLORIDE RULE

Guidelines for compliance officers to follow when inspecting for vinyl chloride hazards under the emergency temporary standard were issued by the Occupational Safety and Health Administration in Program Directive 200-29 on April 23.

The emergency temporary standard for vinyl chloride was issued by OSHA on April 5 (Current Report, April 11, p. 1411).

The "area of operation" refers, but is not limited to, activities or processes such as: (1) manufacturing or processing of vinyl chloride (VC) or polyvinyl chloride (PVC), (2) loading and unloading of VC and PVC (powder in bulk) relative to shipments, (3) sampling and analysis of VC and PVC for quality control during manufacturing processes, (4) compounding PVC into powder or resin, (5) pouring PVC powder or resin from bags or containers, (6) packaging PVC resin powder, (7) maintenance and repair of vessels and/or reactors containing VC or PVC, (8) maintenance and repair of storage silos for PVC, and (9) leakage of VC in any area, particularly in processing areas.

"Permissible exposure" refers to a ceiling value of 50 parts per million (ppm) of VC. It does not mean a time-weighted average (TWA) exposure of 50 ppm of VC with results which fluctuate above and below 50 ppm.

"Monitoring of a sufficient number of employees so that a representative sample may be determined" means that the employer shall monitor at least 75 percent of the production, maintenance, sampling, laboratory, and shipping employees on each shift. The employees monitored must be representative of each operation performed where exposure is likely to occur. Initially, representative employees from every operation should be monitored. Afterwards, where it is established that there is no likelihood of exposure for employees in certain operations such as those in offices, these employees may be exempted from monitoring requirements.

"Personnel monitoring" refers to measurements made by the employer of employee exposures. Samples should be taken at the breathing zone of the employee at the times when the highest exposures of VC are likely to occur. The standard (or this directive) does not specify the method of analyses that the employer must use, only that the procedure be sensitive to 50 ppm of VC in air with an accuracy of ± 20 percent for a 10-minute air sample.

Issuance of Citations

In evaluating violations of the VC rule, the guidelines of the OSHA Compliance Operations Manual will be followed regarding serious and nonserious citations and grouping.

Worker exposures to levels of VC higher than 50 ppm may be considered for imminent danger citations, depending on the facts and circumstances in each case. Circumstances permitting imminent danger citations would be where employees are exposed to more than 50 ppm of VC and are not wearing the required respiratory protection. Supplied air respirators, either in continuous flow or pressure demand or self-contained breathing apparatus (approved by either the Mining Enforcement and Safety Administration or the National Institute for Occupational Safety and Health) are required when concentrations of VC are in excess of 50 ppm.

Alleged violations will be supported by compound label information, employee statements, photographs, ventilation measurements, other observed facts, measurements, and samples taken.

No imminent danger citation will be issued where the employer voluntarily eliminates direct internal contact with VC substances by removing the employees or by providing interim measures for their protection until permanent correction of the dangerous condition can be accomplished. In the citation issued later, the interim protective measures will be required until the date set for permanent correction of the danger.

Where the employer refuses to eliminate the recognized hazard, citations will be issued only after initial court proceedings are concluded regarding the imminent danger.

If, on inspection, it is learned that the employer has not monitored the ambient air and/or the employees, a citation will be issued. It seems most likely that the violation would be nonserious, the directive said. However, each case must be evaluated on its own merits and would become a matter of judgment for the compliance officer.

Any establishment covered by the Occupational Safety and Health Act that may contain VC may be inspected. The VC standard has higher priority than the Target Health Hazard Program. Inspections will be conducted by only an OSHA or state agreement industrial hygienist.

Protective Equipment

When a compliance officer goes to a VC or PVC plant to make an inspection, the monitoring records should be checked before beginning the inspection or touring the facilities to ascertain the necessary protective equipment. The compliance officer is required to use the principle of safe distance or the organic vapor respirator as protection in areas where it appears from the monitoring records that the exposure to VC is 50 ppm or less. "It must be remembered that each cartridge of the respirator is not to be worn longer than 30 minutes," the directive said.

If, from the monitoring records, it appears there are areas in which the exposures to VC are in excess of 50 ppm, the compliance officer will wear a Type C continuous flow or pressure demand air supplied respirator.

Normally, the compliance officer would not enter areas where the employer has not monitored, the directive said. However, if the compliance officer must go in for a reason, such as a fatality, and the employer has not monitored, it will be assumed that the level of VC is above 50 ppm. Therefore, the compliance officer will wear a respirator.

In performing any inspection, the compliance officer must exercise good judgment and make the appropriate evaluation regarding protection necessary for himself, the directive said. Often a factor such as distance, in lieu of respiratory protection, can be useful as a protective measure.

When appropriate, the instructions from the manufacturer may be used as guidelines for decontamination or deactivation of VC.

Monitoring for VC

Personal breathing zone samples should be collected from employees where exposure to VC is likely, the directive said. A Model SP-1 Sipin personal sampling pump shall be used to collect the sample on NIOSH-approved charcoal tubes. The flow rate of the pump shall be no more than 50 milliliters per minute and the total sample size approximately one liter, and/or a sampling time of 20 minutes where a concentration of approximately 50 ppm is suspected. Where concentrations may be greater than 50 ppm, but less than 100 ppm, the sampling time should be 10 minutes. For concentrations greater than 100 ppm, but less than 200 ppm, the sampling time should be five minutes.

All measurements should represent the time when exposures are likely to be the greatest, rather than random exposure throughout the workday. Generally, no more than eight tubes per worker, per day, should be submitted for analysis. One or two tubes may suffice if they represent the maximum exposures.

It is requested that the charcoal sampling tubes with the vinyl chloride samples be forwarded to the OSHA/NIOSH laboratory, Salt Lake City, Utah, on the same day the samples are taken. For shipment, the samples must be placed in a double mailing container and inner part of the container marked "Cancer Causing Substance: Vinyl Chloride."

SIC Code Numbers

The following OSHA list of Standard Industrial Classification code numbers for vinyl chloride is not all inclusive or restrictive. It gives some preliminary indication of where vinyl chloride monomer can be found. Many other locations will have VC or PVC powder or substances containing free vinyl chloride gas.

SIC Number	Industry
2821	Polyvinyl chloride and vinyl resins
5029	Gases, compressed and liquified
2851	Plastic base paints
3292	Vinyl asbestos tile
3079	PVC film, pipe; molding plastics
2818	Industrial organic chemicals
2813	Industrial gases
3357	Insulated wire

VC-PVC Questionnaire

Compliance officers were requested to fill out questionnaires regarding VC inspections to provide OSHA with data to consider in developing a permanent standard.

Following is a partial list of some of the questions on the questionnaire.

(1) Is it an outdoor facility?
(2) How long has the plant been in operation?
(3) Is the equipment corroded?
(4) Is the equipment in need of maintenance?
(5) Is the housekeeping good?
(6) Where is the control room?
(7) What raw materials are used?
(8) How are these handled?
(9) What provisions are made for storage?
(10) Is entry to storage facilities done with an air-supplied mask?
(11) How are withdrawals of raw materials controlled?
(12) What process is used?
(13) What is the method of recycle for the unreacted vinyl chloride?
(14) In what form is the finished product?
(15) How is it shipped?
(16) What are the container sizes?
(17) In the reaction process, what controls are used?
(18) What is the type of ventilation system?
(19) Where is the air exhausted?
(20) Is makeup air introduced in sufficient volume to maintain correct operation?
(21) Is the entry air to the control room treated?
(22) What is the disposition of waste materials?
(23) What sanitation facilities are provided?
(24) In which activities is there potential for exposure?
(25) Are the activity areas regulated?
(26) Are all employees aware of the VC or PVC hazards?
(27) With what protective clothing are the employees provided?
(28) Do employees wear different clothes at work?
(29) Do they shower at the end of the day?
(30) Do they wash before eating?
(31) Are the work clothes cleaned?
(32) What kind of respiratory protection is provided?
(33) Is there training for employees?
(34) How often are respiratory devices checked?
(35) What procedures are established for maintenance and decontamination?
(36) What provision is made for cleanup of spills?
(37) What provision is made for fire protection?
(38) What is the method of sampling?
(39) What method is used to analyze samples?
(40) What does the in-house medical program consist of?

Health Hazards

OSHA TO PREPARE ENVIRONMENTAL IMPACT STATEMENT FOR VINYL CHLORIDE STANDARD

An environmental impact statement concerning any proposed standards for occupational exposure to vinyl chloride is being prepared by the Occupational Safety and Health Administration.

The August 1, 1973, Guidelines of the Council on Environmental Quality require federal agencies to prepare statements considering the effects of proposed legislation on the human environment. OSHA adopted final regulations for the issuance of the impact statements on March 15 (Current Report, March 21, p. 1332).

OSHA is currently collecting information on any adverse environmental effects which cannot be avoided if the standard is adopted, irreversible commitments of resources which would be involved in complying with the standard, the relationship between short-term uses of the environment and the maintenance of long-term productivity, and alternatives to any standard which may finally be proposed.

Information will be collected in the form of medical or toxicological evidence that exposure to vinyl chloride affects living organisms, combustible characteristics, identification of the uses of vinyl chloride and its polymers through finished products, and suggested actions for controlling health hazards associated with the substance.

A 45-day comment period will be allowed after the draft environmental impact statement is issued.

OSHA's announcement of its intent to prepare the statement appears in the Full Text section of this report.

Coal Mines

PUBLIC HEALTH SERVICE EXTENDS DEADLINE FOR SECOND CHEST X-RAYS

The date of completion of the second round of chest X-ray examinations of underground coal miners was extended from June 30, 1974, to September 30, 1974, by the Public Health Service on April 25.

The extension was made because the number of approved facilities for conducting the X-ray tests was fewer than necessary for all coal operators to fulfill their responsibilities under the existing time limit.

The regulations governing the second round of chest X-ray examinations of miners were published on July 27, 1973. They required coal operators to provide each miner the opportunity for a chest X-ray examination by June 30, 1974.

However, the new regulation said the facilities, both mobile and fixed-site, are so tightly scheduled that "there is no allowance for equipment breakdown, illness of medical or technical staff, power shortages, scarcity of