

February 28, 1978

P. J. Snyder

10 West

Review of Vdcm
Workpractice Guideline

Z. G. Bell, Jr.

A meeting was held at Lake Charles on the afternoon of February 22 to discuss the present implementation-status of the Vinylidene Chloride Workpractice Guideline. In attendance were Messrs. J. A. Clapperton, B. Peard, P. Trew and this author.

Attached for your review is a summary of those major items which were discussed. Please note that at the present time there are three general areas which warrant particular attention:

1. What involvement is PPG to have with respect to contractor workers in plant areas affected by VDCM, EDC....workpractice guidelines?
2. What VDC OSHA control measures can be implemented ahead of the presently expected (Project-746) completion date of 1981?
3. The upgrading of the VDC monitoring program to determine all areas requiring the use of respirators and the enforcement of a respiratory protection program.

If you have any questions or comments on this summary, please advise.

Thank you

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cc: F. C. Dehn

J. C. Clapperton

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B. DEFINITIONS

3. "AUTHORIZED PERSON" means any person specifically authorized by PPG to enter a VDCM regulated area. A complete roster of the persons who are authorized to enter the plant's VDCM regulated area must be developed and maintained.

A complete roster of PPG Employees who are medically authorized by Dr. Lovejoy to work in the organics area (Plant B) is presently maintained. This authorization also applies to contractor personnel who are working in vinyl chloride.

To address the surveillance of contractor employees working in other areas of Plant B, B. Peard is to bring this matter to the attention of plant management. Although several administrative difficulties can be anticipated, the question of the contractor worker and what policy "management" is to assume in requiring certain health preventive measures is one area which needs to be further clarified.

2.

C. CHEMICAL DIVISION INTERNAL PERMISSIBLE EXPOSURE LIMITS

1. No employee may be exposed to a VDCM air concentration greater than 2.5 ppm (TWA) as determined by personnel monitoring conducted for a period not less than four (4) but not greater than ten (10) hours and averaged over the time period of actual sampling; and,
2. No employee may be exposed to VDCM at concentrations greater than 10 ppm (ceiling) as determined by any personnel monitoring conducted for 15 minutes; and,

There presently are plant operations which can result in employee exposures in excess of the prescribed limits. This is supported by recent personnel monitoring which has revealed exposures, with and without respiratory protection, in excess of the above limits.

The Vinylidene Chloride Emission Control Project (Res 613.0 P746) as planned will minimize this exposure situation by 1981. The items included in this project are detailed in Attachment #1.

Although time is required to "engineer out" this exposure potential, it must be recognized that all practical efforts should be made to minimize employee exposure during the interim period. This includes the mandatory use of respiratory protection during the collection of VDC samples by the MC AUX operator. A discussion with plant Safety

has indicated that this job can be readily accommodated by the temporary installation of air supplied respiratory protective equipment. A recent increase in VDC exposure monitoring will help to highlight other areas needing interim control measures.

3.

D. PERSONNEL MONITORING

1. An initial determination shall be conducted to establish if any employee may be potentially exposed to levels of VDCM in excess of 1.0 ppm TWA. This determination may include a review of past monitoring records, the results of initial sampling determinations or other information and observations which would be helpful in establishing potential employee exposure to VDCM.
2. Where a determination conducted under paragraph (D-1) of this section shows any employee exposures in excess of 1.0 ppm TWA, a routine personnel monitoring program shall be established for the employees assigned to these job categories.

An initial determination to establish if any employee may be potentially exposed to levels of VDCM in excess of 1.0 ppm (TWA) was made by the VDCM Task Force in May 1977. However, recent air sampling has identified other areas of potential exposure which will require additional evaluation.

Based on a conversation with P. Trew and B. Peard, it is understood that the plant monitoring procedures will in the future follow those recommended in Section D.2 and 3 of the Vinylidene Chloride Workpractice.

4.

F. METHODS OF CONTROL

- d. In order to minimize both releases of and exposures to VDCM, all the applicable operating manuals shall be reviewed and revised so as to include precautionary information and preventive steps that must be followed when working with VDCM. If two consecutive personnel monitoring determinations conducted on a single job category reveal an actual overexposure to VDCM, the written work procedures followed by the employees assigned to that job category shall be reviewed in order to ascertain the need for additional methods of control.

Based on past experience and the information generated by the monitoring program, those jobs which require respiratory protection will be identified and posted in the applicable control room by B. Peard. This approach is

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also to provide for the enforcement of these rules by both Safety and by Operations.

The incorporation of this information in the operating manual was not seen as a means of affecting the most control on employee exposure. For the time being, the control room bulletin board and training sessions are to be the means of communicating this information.

5.

6. RESPIRATORY PROTECTIVE EQUIPMENT AND CLOTHING - ROUTINE OPERATIONS

1. Workers loading or unloading tank cars, tank trucks, barges, ships, filling of drums and other such similar operations where the facility does not have a closed system for vapor equalization, shall wear air supplied respiratory protection during the above-mentioned operations.

Presently respiratory protection is not in use or planned for loading and unloading operations - because the "VDCM Tank Car Loading Operation is a closed system," i.e. excess VDCM is sent to the VC/VDCM tank car purge vent.

Since air monitoring has revealed employee exposure to VDCM vapors during such operations, it is recommended that the respiratory protection program be implemented provide for the use of appropriate respiratory protection on jobs representing "potential exposure" to employees. Where a sufficient quantity and quality of employee monitoring indicates that exposures are routinely below prescribed limits then the use of such equipment should not be considered mandatory.

It should be noted that although an operation may have been engineered to limit vapor releases and would therefore be expected to minimize exposure, the results of employee monitoring should be considered in ultimately determining the effectiveness of "a closed system," and the need for supplemental protection.

6.

I. EMERGENCY SITUATIONS

1. A written operational plan for emergency situations shall be developed. The plan shall specifically provide for:
 - a. Evacuation procedures.
 - b. Fire fighting procedures.

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- c. The use of appropriate protective equipment and clothing, including the use of a self-contained breathing apparatus.
- d. Containment and cleanup procedures.

At the present time a "written operational plan for emergency situations" does not exist. B. Lynch is to prepare this procedure.

7.

J. TRAINING

Each employee engaged in VDCM operations shall be provided training in a program relating to the hazards of VDCM and the necessary protective measures for its safe use. Such a program shall be provided at the employee's initial training and annually thereafter.

and,

K. MEDICAL SURVEILLANCE

1. Any employee assigned work in an area where a potential exposure to VDCM may occur shall be placed on a medical surveillance program. The program shall provide each such employee with an opportunity for examinations and tests in accordance with this paragraph.

Presently Employee Training and Medical Surveillance applies to PPG employees only and not contractor personnel. Again, this area of concern needs to be resolved by management.

It is further suggested that the Employee Training Program provide for a documentation that each employee affected by this workpractice was in fact informed of those items listed under Section J. of the guideline.

8.

GENERAL

The projected completion date of 1981 has been set for Project P-746, the VDCM Emissions Control Project. Many of the work items included in this project address proposed EPA Regulations, and others are directed to the reduction of employee exposure. Once completed this project is expected to greatly reduce total VDCM emissions.

Recognizing that other priorities must also be kept in mind, it is suggested that consideration be given to implementing, as soon as practical, as many of those items which would directly reduce employee exposure, e.g. a sampling system, breathing air system, etc. This may necessitate the preparation of a separate Act.