



DOW CHEMICAL U.S.A.

*File
Vinyl Chloride
Std.*

TEXAS DIVISION
FREEPORT, TEXAS 77541

R&S 140701

October 11, 1974

R. L. Daniel, B-101
L. F. Wright, B-1227
E. L. Rainwater, A-2431
R. R. Oubre, OCD

VCM CONFERENCE

Enclosed is a brochure about a VCM Conference to be held in New York City on October 31 through November 1.

As you can see from the brochure, I will be giving a presentation at 2:00 pm on November 1. I will only be there that one day.

I just sent you the brochures for your information in case you were interested.

K. H. Oelfke, Jr.
K.H. Oelfke, Jr.
EDC & Derivatives

mr

*RECEIVED
OCT 17 1974
K. H. OELFKE, JR.*



SOCIETY OF PLASTICS ENGINEERS, INC.

Palisades Section • Vinyl Plastics Division

R&S 140702

R
E
G
I
O
N
A
L

T
E
C
H
N
I
C
A
L

C
O
N
F
E
R
E
N
C
E

V C M

THE
PROCESSORS' PERSPECTIVE

OCTOBER 31 – NOVEMBER 1, 1974

THURSDAY – FRIDAY

AMERICANA HOTEL
7th Ave. & 52nd St.
New York City

"THE MOST IMPORTANT RETEC EVER SPONSORED BY SPE"

WH
YOU

SHOULD
ATTEND.....

The Department of Labor, Occupational Safety and Health Administration (OSHA), has proposed new standards to limit exposure to vinyl chloride monomer (VCM). This regulation is of concern to plants manufacturing VCM and/or polyvinyl chloride (PVC) and plants which process PVC into compounds and/or fabricated products. The regulation has been devised in order to limit exposure to VCM, as it has been suspected of being linked to the incidence of angiosarcoma. Other governmental agencies, such as the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) are also interested in this problem. The Society of Plastics Engineers, Inc. has scheduled a two day technical conference in order to disseminate information relative to the new regulation, emphasizing the effect on the PVC processor.

This RETEC will feature.....

- History of the VCM situation relative to its effect on employee health.
- A summary of OSHA, FDA and EPA regulations, current and proposed.
- Explanation of what the regulations mean to producers, processors and users of vinyl plastic products.
- Analytical devices and methods of detection and monitoring.
- Protective equipment.
- Processing techniques to minimize VCM exposure.
- Analysis of future needs.
- Educational displays pertinent to the technical papers.

EDUCATIONAL DISPLAYS — Versailles Terrace

Hours: Thursday, Oct. 31 — 10:00 a.m. — 12:15 p.m.
2:00 p.m. — 6:00 p.m.

Friday, Nov. 1 — 10:00 a.m. — 12:15 p.m.
2:00 p.m. — 4:00 p.m.

Nature of the Educational Displays will consist of companies supplying equipment for the detection of VCM, protective equipment from VCM exposure, as well as consulting, engineering and analytical services relative to VCM. Detection equipment includes spot and continuous analyzers based on gas chromatography, infrared and colorimetric techniques. For further information, contact E. J. Wickson, Exxon Chemical Co. P.O. Box 536, Linden, N.J. 07036, (201) 474-2162.

WEDNESDAY EVENING — OCTOBER 30, 1974

6 — 9 p.m. REGISTRATION, Regency Foyer, 3rd Floor

THURSDAY, OCTOBER 31, 1974

7:30 a.m. Registration — Imperial Foyer, 2nd Floor

MORNING SESSION — ESTABLISHING A PERSPECTIVE

8:45 a.m. Welcome and Introduction
*Avron B. Magram, Hatco Chemical Div.,
W.R. Grace & Co.
President Palisades Section, SPE*

9:00 a.m. Keynote Address: "What is the Vinyl Chloride Monomer (VCM) Problem?"
*Richard Fleming, Vice-President, Chemicals Group
Air Products & Chemicals, Inc.*

Abstract: Mr. Fleming will present an up-to-date overview of the VCM problem, particularly as it relates to the concerns of the processors and fabricators for worker protection. He will discuss various key issues leading to the development of the OSHA Standard now in effect and the polymer producers' responsibility to workers and customers.

9:30 a.m. "VCM and PVC Resin Manufacture"
*Dr. Paul Lobo, Group Director, Organics & Polymers Division
Tenneco Chemicals, Inc.*

Abstract: VCM and PVC resin manufacturing processes are reviewed and related to the degree of worker exposure in the past and present. Additionally, information on the VCM level in resins as shipped to processors will be discussed.

10:00 a.m. "VCM From Resin Shipment Through Fabrication"
*Rodney P. Becker, Manager, PVC Applications & Technical Service
Frederick A. Sacks, Applications Engineer
Plastics Division
Diamond Shamrock Chemical Co.*

Abstract: The results of VCM determination at compounding and fabricating operations in processors' plants will be detailed. Operations most likely to need close supervision will be described. Methods for minimizing worker exposure will be suggested. This paper should be informative especially for those wishing to upgrade their understanding of the complicated technology involved in the processing stage of articles based on PVC.

10:30 a.m. Coffee Break
Moderator: *Dr. Lewis B. Weisfeld
Vice-President and Scientific Director
Cincinnati Milacron Chemicals, Inc.*

10:45 a.m. Continuation of: "VCM From Resin Shipment Through Fabrication"

11:15 a.m. "VCM — The OSHA Standard and Its Interpretation"
(Speaker to be announced)

OSHA will discuss the background leading to the standard in existence after October 5, 1974. What is the current standard? Who is affected and how? Ongoing and future activities by OSHA in this area will be included as much as possible.

12:15 p.m. LUNCHEON — Imperial Ballroom B
Guest Speaker: *John H. Myers, President SPE
General Manager, Research & Development
Delaware Plastics Division
Container Corp. of America*

URSDAY, OCTOBER 31, 1974

AFTERNOON SESSION

2:00 p.m. "VCM - The EPA Viewpoint"
Glenn E. Schweitzer, Director
Office of Toxic Substances
U.S. Environmental Protection Agency
Washington, D.C.

Abstract: Mr. Schweitzer's presentation will cover recent EPA activities relative to VCM. It also should provide insight into what industry should now be doing or planning to do in order to control VCM as a pollutant.

2:30 p.m. "VCM - The FDA Viewpoint."
Gerard L. McCowin, Assistant to the Director
Division of Food and Color Additives
Food and Drug Administration (FDA)
Washington, D.C.

Abstract: Current involvement by FDA will be covered, along with actions taken or pending. This will include a discussion of the Food Additives Regulations as they relate to vinyl chloride and what they require of the processor.

ANALYTICAL DEVICES & METHODS

Moderator: *Dr. Gerald J. Mantell,*
Director of Research
Air Products & Chemicals, Inc.

3:00 p.m. "Determination of Vinyl Chloride in Workplace Air"

Dr. Robert H. Hill, Jr., Chemist
Department of Health, Education & Welfare
Public Health Service
Physical & Chemical Analysis Branch, DLCD
National Institute for Occupational Safety
& Health (NIOSH) Cincinnati, Ohio

Abstract: The method used by NIOSH for determination of VCM in workplace air is discussed. Air from the worker's breathing zone is drawn through a tube containing activated charcoal and the vinyl chloride is trapped. For analysis, the vinyl chloride is desorbed from the charcoal with carbon disulfide and is subsequently determined by gas chromatography.

3:30 p.m. "Monitoring Methods for VCM at Western Electric"
Dr. Frank M. Zado & Dr. J.O. Rasmuson
Western Electric Research Center

Abstract: Vinyl chloride (VCM) monitoring in industrial atmospheres at Western Electric can be accomplished with an automated VC analyzer. This instrument consists of a portable gas chromatograph equipped with a flame ionization detector and a control module providing capabilities for automated and unattended operation. The highly efficient GC continuously provides interference free measurement of VCM concentrations from less than 0.1 ppm in cycles of 4 minutes. Less frequent measurements, if desired, are simply dialed in.

4:00 p.m. "Analysis for VCM in PVC Resins, Compounds and Extractants"
Ivor L. Simmons, Manager
Central Analytical Dept.-M & T Chemicals, Inc.

Abstract: The gas chromatographic methods for the determination of VCM in PVC Resins, compounds and liquids which have been in contact with finished PVC articles are presented. The preparation of standards and samples are discussed in detail. The problems of sensitivity and interferences and alternative means of detection are presented especially in the area of liquid extractants.

4:30 p.m. - 6:00 p.m. Industry Reception - Cash Bar
Versailles Ballroom

Registration
Palisades Section/Vinyl Plastics Division - REGIONAL TECHNICAL CONFERENCE - Society of Plastics Engineers, Inc.
"VCM - THE PROCESSORS' PERSPECTIVE"
Thursday-Friday, October 31 - November 1, 1974 - AMERICANA HOTEL, 7th Ave. & 52nd St., N.Y.C.

Zip

Address

Name

Company

Title

Make Checks for Registration payable to:

Mail checks & this card to:

Payable in U.S. Currency

PHILIP G. WHITNEY
RETEC Registration Chairman
c/o Surf Chemical Inc.
105 Maple Avenue
Hackettstown, N.J. 07840

(201) 852-1145

Registration Fee:

Advance
At Conference

Members

\$60
70

Advance
At Conference

Non-Members

\$70
80

Please check

Member

Non-Member

Committee Only

Date Rec'd

Amount \$

List names and member status for whom additional remittance is enclosed on separate sheets.

Hotel accommodations may be arranged directly with AMERICANA HOTEL, reservations must be made by October 16, 1974.

Fees include Luncheon tickets and RETEC Preprint Book.

ADVANCE REGISTRATIONS OR REFUNDS WILL BE HONORED ONLY IF POSTMARKED BY OCTOBER 23, 1974

FRIDAY, NOVEMBER 1, 197

RETEC COMMITTEE

- General Chairman - Alva E. Whitney, Jr.
Chemical Div. Goodyear Tire & Rubber Co.
- Program - E. "Mike" Muschick
Monsanto Company
- Registration &
Co-Finance - Philip G. Whitney
Surf Chemical Inc.
- Educational
Displays - Edward J. Wickson
Exxon Chemical Company
- House - Emil J. Vyskocil
Ferro Corp.
- House &
Publicity - Richard J. Schanno
Glyco Chemicals, Inc.
- Secretary &
Co-Finance - Robert C. Ringwood
M & T Chemicals, Inc.
- Sergeants-At-Arms - Alex Stasenko
First Dynamics, Inc.
- John W. Brook
Claremont Polychemicals, Inc.
- Program Liaison to
Vinyl Division - Avron B. Magram
Hatco Chemical Div., W.R. Grace & Co.
- Program
Committee - Charles A. Clark
B.F. Goodrich Chemical Co.
- Glenn Prejean
Dow Chemical USA
- Edward J. Wickson
Exxon Chemical Co.
- R. Larry Brecker
Argus Chemical Corp.

ADVISORY

Warren D. Sechrist, Gracon Div. W.R. Grace & Co., Leonard I. Nass,
Consultant: Arthur F. Fletcher, Westwood Chemical Co.

PALISADES SECTION OFFICERS

- President - Avron B. Magram
Hatco Chemical, W.R. Grace & Co.
- Vice-President
Engineering - David W. Riley
General Cable Corp.
- Vice-President
Administration - John W. Brook
Claremont Polychemicals Inc.
- Secretary - Leonard Krauskopf
Union Carbide Corp.
- Treasurer - Robert C. Ringwood
M & T Chemicals, Inc.
- Councilman - Alva E. Whitney, Jr.
Chemical Div. Goodyear Tire & Rubber Co.

VINYL PLASTICS DIVISION OFFICERS

- Chairman - John W. deGroot
- Chairman
Elect - Harry Landfield
Abbott Laboratories
- Treasurer - Paul V. McKinney
Consultant
- Secretary - Jay Martin
Borg-Warner Chemicals
- Councilman - Donald K. O'Leary
Podell Industries, Inc.

7:30 a.m. REGISTRATION - Imperial Foyer, 2nd Floor
MORNING SESSION - ANALYTICAL DEVICES & METHODS

Moderator - Dr. Gerald J. Mantell

- 8:45 a.m. "Monitoring Ambient Vinyl Chloride with In-
frared Analyzers".
Paul A. Wilke, Jr., President
Donald S. Lavery
Wilks Scientific Corporation

Abstract: VCM has a characteristic infrared spectrum. Thus, with recently developed selective filter infrared analyzers equipped with long-path absorption cells, it can be detected in the atmosphere and measured quantitatively in the low parts per million range. The infrared method has high specificity, provides nearly instantaneous measurements and the equipment is simple, requiring a minimum of service and maintenance. Both portable and continuous, multi-sample point infrared VCM analyzers will be described.

- 9:15 a.m. "A Continuous Monitor for Vinyl Chloride
Monomer, Based Upon an Impregnated, Paper
Tape".
Byron A. Denenberg, Vice-President
MDA Scientific, Inc.

Abstract: A self-contained, specific, low-cost, semi-portable, continuous monitor for VCM has been developed. Model 7070 is based upon the use of an impregnated paper tape, supplied in convenient cassettes which produces a color reaction when exposed to VCM. Continuous recording and both audio and visual alarms are incorporated into the basic design. The monitor and the color reactions will be discussed.

- 9:45 a.m. "VCM - What to Expect During an OSHA In-
spection"
Otto White, Jr., Regional Industrial Hygienist
U.S. Department of Labor
Occupational Safety and Health Administration
New York, N.Y.

Abstract: An in-depth view of the typical procedures utilized during an OSHA inspection to determine compliance to the Vinyl Chloride Standard, 29 CFR 1910.93q. Discussion includes: recognition and identification of potential vinyl chloride sources, review of vinyl chloride monitoring program and records, evaluation of control methods used to limit airborne concentration of vinyl chloride, assessment of respiratory protection program and extent of employees knowledge in relation to exposures in excess of the standard and observation of monitoring.

- 10:15 a.m. Coffee Break

- 10:30 a.m. PANEL SESSION: Discussion of questions rela-
tive to VCM: Sample Collection and analysis.

- 11:15 a.m. "VCM - Current European Status"
(Speaker to be announced)

- 12:15 p.m. LUNCHEON - Imperial Ballroom B

FRIDAY, NOVEMBER 1, 1974

**AFTERNOON SESSION - PROTECTIVE DEVICES &
PROCESS OPTIMIZATION**

Moderator: *David W. Anderson,*
Coating Division Manager
Quimet Corporation

1:30 p.m. **"Respiratory Protection for Vinyl Chloride Monomer"**
Ronald Voisard, Mgr. Distributor Development & Tech. Service
Scott Aviation, Division of A-T-O, Inc.

Abstract: This paper will discuss the equipment requirements relative to the Emergency Temporary Standard and the Permanent Standard by OSHA on VCM. Mr. Voisard will discuss the degrees of protection afforded by the various types of respirators, the trade-off associated with each, the equipment serviceability and costs.

2:00 p.m. **"Respiratory Protective Devices and Protective Clothing Used in Areas of VCM Manufacture"**
Karl Oelfke, Production Manager
Dow Chemical U.S.A.

Abstract: Mr. Oelfke will discuss information on Engineering Controls and Manufacturing Practices in both production of VCM and copolymers of vinyl chloride. He will describe possible areas of VCM exposure and the protective clothing and/or respiratory protection needed in these areas. Advantages and disadvantages of the different types of protection will be covered.

2:30 p.m. **"Protective Techniques for VCM in Mixing and Extruding Operations"**
Dr. Maurice Oberg, Senior Staff
Industrial Hygienist
LFE Environmental Systems

Abstract: A variety of manufacturing facilities using PVC resins were surveyed for airborne concentration of VCM. Results of this survey were presented for both lab and large scale operations and include storage, handling, mixing, and extruding. This paper deals with corrective measures and attempts to answer: What is available today? What is being used? How long does it last? What does it cost?

3:00 p.m. **"Controlling and Reducing Monomer Content in PVC Formulations Through Advanced Compounding Techniques"**
Ronald Adams, Chief Engineer
Werner & Pfleiderer Corporation

Abstract: Mr. Adams will discuss methods of reducing VCM content in both rigid and plasticized PVC formulations through advanced compounding techniques. An analysis of typical PVC formulations will be made defining all processing stages where monomer might be set free, including pre-blending, melt compounding, pelletizing, pellet drying, conveying, storage and re-melting during final conversion. The possibility of eliminating VCM by thermal or auto-catalytic decomposition will be discussed.

3:30 p.m. **Summary Highlights of the Conference**
Dr. Daniel S. Dixler
Keller and Heckman, Washington, D.C.

Extra Paper "Vinyl Chloride Analysis in PVC Processing Plants"
Paul A. Ketterer, Group Leader Analytical
Tenneco Chemicals, Inc.

Mr. Ketterer will be on the Panel Friday, 10:30 a.m.

R&S 140706