

B.F.GOODRICH CHEMICAL COMPANY MEETING REPORT

SUBJECT Ambient Air Monitoring at Imperial Chemical Industries		DATE February 22, 1974
OUTSIDE ORGANIZATION INVOLVED Imperial Chemical Industries, England		
MEETING PLACE ALTC-ALGCP		MEETING DATE February 21, 1974
BFG PARTICIPANTS L. B. Crider L. W. Salzer R. N. Rylands J. R. Shellenberger M. D. Rider	OTHER PARTICIPANTS (NO DISTRIBUTION) Dr. William Madden Imperial Chemical Ind. Mond Division P.O. Box 8, The Heath Runcorn, Cheshire WA7 4OD England	ADDITIONAL COPIES TO: C.T.F. B. A. DiLiddo B. M. G. Zwicker E. W. Harrington A. L. Schultz R. M. Kraeger F. E. Krause W. J. Wilcox LBC/File G. D. Schaaf
RESULTS AND COMMITMENTS:		PERSON RESPONSIBLE:
Purpose of Visit: To review our vinyl chloride monitoring system and exchange results on a confidential basis with respect to exposure levels and techniques to reduce VCM exposures. Imperial Chemical Industries (ICI) has four separate facilities in England in which they are now doing several types of ambient air and/or personal monitoring. A brief summary description of building types and their present knowledge of monomer levels is shown in attached Table 1. In general, Dr. Madden's description suggests that they are "in good shape" in their most modern plant (large polys, open construction). In the enclosed areas in this plant (about 1/4 of the total building volume) the VCM levels are currently below 5 ppm. In their enclosed plants (also small polys) they have higher levels than our similar plants for a number of reasons. A major factor is their procedure for evacuating polys. They pump down to about a 20" vacuum, then insert a hose and pump in fresh air. The air-monomer mixture in the poly is exhausted into the building. This is done because of concern about pulling the air-monomer mixture (in the explosive range) through an exhaust fan. John Shellenberger described our procedure of exhausting through a vacuum line to the outside of the building. ICI data on VCM levels in plant working areas is based on batch samples using a gas chromatographic procedure and draw samples using a flame ionization detector. They have also done some personal monitoring using the Casella method. Copies of these procedures are attached. Dr. Madden was given a detailed description of our Bendix system and an on-site demonstration of both the Bendix and Century OVA operation. We also reviewed with him our procedures for the analysis of residual VCM in PVC resin and compounds. Additional discussions also included a description of our on-going experimental work to determine the efficiency of the carbon cartridges in the Welch Respirator and possible new concepts for the analysis of residual monomers in resins.		

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REPORTED BY

L. B. Crider

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In general, Dr. Madden was considerably impressed with the operation of our monitoring capabilities in Bldg. 451. He feels that our total system, including the planned computer acquisition of data, is the most advanced concept in the PVC industry today and will strongly recommend that ICI proceed along these same lines.

L. B. Crider

L. B. Crider

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Attachments

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<u>Facility</u>	<u>Type</u>	<u>VCM Levels</u>	
		<u>Current</u>	<u>Past</u>
#1 in operation since 1970	Large Polys; open construction; homopolymers	<5ppm	<10ppm
#2 1/2 in operation 1964 1/2 in operation 1967	Small polys (15 cu m); 3 story closed construction; open floor grates; homopolymers	70-150ppm	>200ppm
#3 pre-1964	Small polys; closed construction, copolymers, VCl ₂ and VAC	30-40ppm	no history
#4 pre-1964	Small polys; closed construction; copolymers	60 ppm	no history

Table I

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L Crider

CUSTOMER VISIT REQUEST

TO: R. W. KYLANDS Date: February 12, 1974
LOCATION: AVON LAKE GENERAL CHEMICAL PLT. Salesman: _____
CUSTOMER: Dr. Madson - INTERIAL CHEMICAL INDUSTRIES LIMITED, Mond Division
ADDRESS: P. O. Box 8 The Heath, Burnage, Cheshire WA7 4OD. England

VISITORS NAMES & TITLE

1. Dr. Madson 2. _____
3. _____ 4. _____
Preferred Date February 21, 1974 Secondary _____

Will visitors be accompanied by B. F. G. Salesman Yes ☒ No
PURPOSE OF VISIT: To review our vinyl chloride monitoring system and exchange results on a confidential basis with respect to exposure levels and techniques to reduce VCM exposures.

B. F. GOODRICH PERSONNEL TO BE VISITED

1. L. B. Crider (to act as host) 2. _____
3. _____ 4. _____
5. _____ 6. _____

Area to be Visited: (Circle one) Cleveland, Dev. Center, (Plant) Building #451
Special Arrangements & Instructions: It would be helpful to have a demonstration of the Century OVA in searching leaks, to demonstrate sensitivity of response. Hopefully the building will be operating with good ventilation, and our exposure level will be under control.

OK
aw Naughton

Insulate as much as possible from PVC technology
awb

Cleveland Managers: Please notify salesman of approval by memo or TWX.

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