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FROM	**FIELD POINT OR AKRON DEPARTMENT & BLDG. NO.**	**DATE THIS LETTER**
A. M. Fairlie	Cleveland	March 18, 1974

SUBJECT

Weekly Summary Report
Vinyl Chloride Ambient Vapor Concentrations

The Avon Lake Technical Center results for Building 414 West reported for the week ending March 15, 1974, are being adjusted as follows:

Floor	Averages	No. of Readings	% Readings > 50 ppm
1	13.1	33	3.0
2	13.8	34-36	8.3
3	13.1	52-53	7.5
Bldg.	13.3	------	6.3

Two exceptionally high readings (700 and 12,000 ppm) occurred north of No. 2 VCl tank. These were due to leaky valves and were corrected the same day they occurred. They are not included in the reported averages for the second floor.

One exceptionally high reading (10,000 ppm) occurred at the filter crock when it was hand-agitated by a technical man. This was not included in the reported average for the third floor.

A procedure for handling exceptional cases such as these will be issued because they do not represent the average exposure level for the floor. However, these high readings must be reported and prompt action must result to eliminate the exposure.

A. M. Fairlie

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M I N U T E S

AMBIENT VINYL CHLORIDE STANDARDS COMMITTEE MEETING

Cleveland Office

March 8, 1974

PRESENT:

Herman Waltemate	W. J. Wilcox
E. B. Katzenmeyer	E. G. Schwaegerle
A. M. Fairlie	E. R. Clayson
T. R. Linak	G. H. Metzger
B. M. G. Zwicker	G. D. Schaaf

1. Herm Waltemate reported on the NIOSH review of the Avon Lake plant. It appears that approximately 10-12 plants of the total industry will be reviewed. Three or four of these plants will have an in-depth study. Louisville and Avon Lake will probably be included in this group. The age of the plant and size of the work population are all primary selection factors.

   At Avon Lake NIOSH was interested in such things as the number of employees, the job classification, the ventilation of the buildings, and the work history of the employees.

   Poly entry procedure and history of poly entry was discussed. There was no specific recommendations from NIOSH on what type of permanent records to be kept. They were interested in excursions, how high they were, and how long the people were in the affected area. The present Bendix time cycle of 12 minutes for the six sample points should be maintained as the minimum for proper monitoring.

   A. W. Clements was contacted both by OSHA and the state of California. It should be pointed out that no information should be given out over the phone. The person should be invited to the plant and their credentials checked before giving them any information. A record of material discussed with NIOSH should be maintained and things that are classified as "Company Confidential" should be clearly marked.

2. Ed Katzenmeyer reported on the progress of the personnel monitoring systems. Several sampling devices have been installed in Building 451 at the same point of the Bendix sample. The units are allowed to run for four hours and the analysis is then compared to the analysis from the Bendix instrument. To date, agreements appear to be good between sampling systems.

NOTE: Underlining denotes "Action Items"

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Work will start on people at the Avon Lake plant during the week of March 10, 1974. This data must be evaluated before work can be started on other plants. The absorption tube will be designed for four-hour duration. The successful completion of this analysis requires attention to many small details. When the personnel monitoring evaluation at Avon Lake is completed, then the work will begin at Louisville. Ed Katzenmeyer will contact the plants when he is ready to get individual plants involved into the program.

Jack Ryan will be in Louisville the week of March 10th to monitor Building 15 with the IR to obtain the analysis of the amount of vinylidene chloride in the building. In addition, he will check for chloroform, vinyl chloride, and other ingredients. The individual component monitoring will require a simple gas chromatograph. Possibly a new type Bendix instrument could be used at a later date.

3. Andy Fairlie presented to the committee the recommendations for the mini computer. He proposed that the data from the Bendix unit be sent to the mini computer, which would then generate a report each shift for each building. This data would be printed out on a typewriter-type output. The information would then be transferred to a magnetic tape system where it would be stored for preparation of weekly and monthly reports. It would also be possible to transfer data from the magnetic tape unit into the time sharing terminal and into the IBM 370 in Cleveland. This type of system would allow extreme versatility. It will also permit information (individual shift data) to be stored in Cleveland in a panvalet file for periods of time up to one year.

   Monthly reports will then be issued for each building including the amount of time operators spend in the various areas so that the time weighted averages could be printed. To obtain this type of data a time study survey would be required and would be integrated into the computer program. This data would then be retained for a 20-year period to meet NIOSH requirements. For unusual situations in cases where the monomer concentration in the building was high, an exception or safety report would be written.

   It was agreed by the committee that an EA will be prepared to purchase three of the mini computer type systems for all plants where we do not presently have computer capabilities (Long Beach, Avon Lake, and Henry). Possibly, the Long Beach unit could be utilized at Louisville until the computer from the large poly is available.

4. The recent work with the analysis of respirator cartridges was discussed by L. B. Crider. A written report has been issued. A respirator is not recommended except for emergency use in low levels of exposure. If a respirator is used to clean polys, the cartridge must be changed after each poly entry (respirators are being used on a temporary basis at Avon Lake). Herm Waltemate will define all these standards with his meeting with the Safety Engineers on March 14th.

5. Work Practices -- One of the items to reduce the vinyl chloride contamination at the tank farm would be evacuation of the vinyl chloride unloading lines with the recovery systems. This procedure is recommended for all plants. After

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careful review, it may reduce the wearing of a Scott airpack for tank car unloadings.

Samples of disposable coverhauls and PVC wetsuits were sent out to all plants.

6. Vinyl Chloride in the Product -- The sampling and test reproducibility of the vinyl chloride in PVC product remains to be defined. A preliminary evaluation of the round robin shows much discrepancy in the test data. Andy Fairlie will work with Hugh Marty to define test and sampling reproducibility.

Work is underway at the Louisville plant to reduce the residual monomer level of 222 using the steam stripping method. Slurry samples after being stripped for eight hours showed a considerable reduction in vinyl chloride levels. Tests still must be made on the finished product to determine if its level is also low.

Other programs are underway to evaluate methods of reducing residual monomer in 222. Samples have been sent to Al Berens for diffusion analysis. A sample has been sent to Ron Davis for work with the stripping column at Brecksville. Work is in progress to determine if the vinyl chloride content of Geon 222 can be reduced by air fluidization.

Ben Zwicker suggested something might be used to swell the particle to provide better access of vinyl chloride exit. Possibly, something like methanol might be used. Ed Schwaegerle agreed to talk to Doctor Collins regarding this approach.

It was mentioned that we may have to label all finished products over 1/10th of a percent vinyl chloride as hazardous to your health. Therefore, it is very imperative that we get all resins below this level. Effort could be undertaken with the customers to produce a more porous product, hence one which will allow residual monomer to be released more readily.

Ed DeCapita will continue working with all plants to get our vinyl chloride analysis in the PVC product lined out, equipment-wise and test-wise. The question of resin particle size and the vinyl chloride content of the individual particle size fractions was discussed. It was agreed that we will determine the vinyl chloride content of screened resin samples collected at the various mesh sizes (John Whitney and his lab have been requested to undertake this project).

Ed Katzenmeyer reported on his recent visit to both the Marietta and the Gloucester plants. In general, vinyl chloride residual levels around the equipment was fairly low, and certainly no reason for concern. However, it was mentioned we need some more data with our own resin at high or low levels of residual monomer to determine the ambient vinyl chloride levels in the compounding areas. For example, we should take a resin at about 1,000 ppm and determine with a standard formulation what ambient levels of vinyl chloride the compounding workers are exposed to. Correspondingly, the same thing should be done with the resin containing about 200 ppm of residual monomer. This test will be handled on a M.A. basis and followed by Dick Coffey. This will allow us to get our customers some idea of what levels of monomer their workers may be exposed to.

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7. Delivery of all Bendix instruments, recorders, and sampling systems should be completed during the month of March. Lou Salzer will follow the instrument delivery and initial start-up in the PVC plants. He is scheduled to be at the Louisville plant the week of March 11th. March 20th and 21st is a scheduled training program for instrument people at the Bendix plant. This training program is meant to include all instrument people who were not in attendance at the first session. Following the training program, Lou will go to Henry for the installation and start-up of their system. The Pedricktown and Long Beach plants will follow in that order.

8. Bill Wilcox reported on the Tabershaw-Cooper program to investigate employee death records at our older plants. So far we have only seen problems with angiosarcoma with the employees at Louisville. No evidence of problems from Niagara Falls or Avon Lake people have been noted.

9. Ed Katzenmeyer reported on his dust sampling at the Avon Lake plant. Ed has done some work at Avon Lake using a gravimetric sampling method and comparing it to a GCA sampling-type instrument. Tabershaw-Cooper also uses a GCA dust instrument at the Louisville plant, but this instrument is not yet approved as a dust measuring device. Ed plans to do the Louisville plant dust sampling next. The best guard against dust problems are to spend adequate time on housekeeping, to keep dust levels low. Currently, there is no standard quantity for PVC dust. More work is required in this area.

G. D. Schaaf

GDS/cls
3/13/74

cc: Attendees
E. W. Harrington
L. B. Crider
C. R. Flynn
A. Vittone
R. D. Scott
J. L. Nelson
R. N. Rylands
P. H. Lawrence
A. R. Webber
C. B. Cooper
A. W. Clements
C. L. Woods
R. M. Kreager
R. J. Fawcett
R. W. Strassburg
F. E. Krause
J. F. Malone
G. Pow
P. J. Weaver

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