

Interoffice Communication

To L. N. Vernon, Saddle Brook, New Jersey
From R. G. Weiss, Ponca City, Oklahoma
Date August 16, 1974
Subject VCM Health Problem--Conoco Chemicals Manufact
Status Report No. 21

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CBH
PLF

RETURN TO PLANT
MANAGER'S OFFICE
VVC 000000641

A hearing was conducted by the Coast Guard on August 15, 1974, on the proposed carriage requirements of vinyl chloride. Representatives of Conoco, B. F. Goodrich, PPG, Tenneco, Shell, Unigas, SPI, and ACS were in attendance. The hearing was quite brief with only two oral statements being made by Conoco and SPI, although other companies stated their intent to submit written comments prior to the September 6, 1974, deadline. The Coast Guard stated that it would welcome industry's assistance with the preparation of these regulations. Although no discussion was held during the hearing, afterwards the industry's representatives discussed the regulations with members of the Coast Guard technical staff. No tentative date for issuance of these regulations was stated.

Analytical research are currently running tests to determine the effect of water leaching on PVC pipe. Five types are included in the 18-day test. The research group has also completed testing of the aluminized polyester bag memory. With initial exposure to 140 ppm EDC, the bags show an acceptability for use in this service. A detailed report will follow.

Shipment of the first Honeywell GC-16 fixed point VCM monitor has been delayed until September 6 because of parts delivery.

The MCA received results of a test for Threshold Odor Level (TOL) of vinyl chloride, concluding that the normal odor detection level of VC is 2,000 ppm. Reasons for previous discrepancies in the TOL is that VCM is now a much purer commercial product than years ago. The low level of detection was due to some impurity rather than VCM.

The seven PED engineers under T. R. Prater have been assigned to the preliminary Oklahoma City test run work.

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Aberdeen PVC Plant--Air bag dosimeter results have revealed one sample greater than 50 ppm. This occurred during the addition of catalyst to a small reactor and resulted in a procedure change. Insertion of the vent hose into the reactor manway during this operation has been included.

Results of the plant's particulate emission study has been reviewed by the plant and shows the need for improved maintenance of dryer dust collectors and new emission control devices for the storage silos. A meeting with the state agency representatives has been set to discuss their regulations.

R. L. Anthony and R. L. Folks, MED, will be in the plant next week to troubleshoot the problems involved with the MED continuous analyzer trailer. Assistance will also be provided the plant in preliminary preparations for the arrival of the fixed point VCM monitor.

Results of the PED feasibility study of operating the small reactors at a 5 ppm TWA and 10 ppm ceiling show that open reactor manheads propose a major problem, which is also evident during cleaning operations. Continued maintenance and rigid following of procedures will be necessary to accomplish a 10 ppm VC average which was stated as "probably possible." This study only included V-12 reactors, and data used were taken during many of the steam stripped batches. An additional report will study the V-12 recovery system operation feasibility.

Oklahoma City PVC Plant--Dosimeter samples taken in this two-week period show no readings above 50 ppm by employees not wearing breathing air. VCM tank car unloading continues as an operation designed for breathing air usage.

The dump Sweco will be modified to include a larger discharge spout and a plexiglas port for viewing the load on the screen. These changes, along with relocation of the V-40 building camera, are part of the effort to reduce VCM levels and necessary exposure around the dump Sweco.

Due to delay in contractor availability for erection of scaffolding, the particulate emission study of the plant has been delayed to later in August.

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Charles Paschall, QC Supervisor and Safety Director, was in Ponca City to receive training in the analysis of residual VCM content in the slurry. This in-plant expertise will be an asset to the Oklahoma City VCM health program.

Two PED engineers who were on assignment in Aberdeen were transferred to Oklahoma City to assist in the VCM health program. With this additional help, a more in-depth study of the plant's problem areas will be possible.

Lake Charles VCM Plant--Personnel monitoring is continuing this month with no results to date greater than 50 ppm.

James A. Devlin, Bendix Corporation, visited the plant for an interview to determine selection of a plant for further study. Eight samples were taken during his visit. Results of the plant's concurrent samples were not complete. Prior notice of the visit was given.

The maintenance department completed installation of the plant-designed light ends tank and dryer sampling system. The system is in operation, but no results of operational VCM levels are available.

Plant engineers are working on cost estimations for replacement of the vinyl process pumps with sealless pumps and interim corrective measures for the T-252 pit, of which a more suitable solution was submitted in the 1975 capital budget.

No grid sampling was taken during the last shiploading, although samples were taken during cargo sampling. A level of 40 ppm was recorded. Current operation makes it of prime importance that both the connections of the ship's sampling device and the valves and connections of the sample bomb are in proper working order to result in low VCM exposure levels. This necessitates total cooperation from the ship for this result.

In the previous report, reference was made to the continued maintenance of the swivel joints and valve packing resulting in low VCM exposure levels. It was not the intention to infer that this in itself resulted in the low readings. Equipment and procedural changes are necessary to correct several problems, although maintenance of equipment is an important tool to continued success.

L. N. Vernon

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Manpower Utilization

Chemicals--PED	7	Chemical Engineers
Design--PED	1/3	Chemical Engineer
MED	1/2	Physicist
	1/2	Chemist
CED	1	Architectural Engineer
	2	Draftsmen
R&D	1	Chemist
	5	Technicians
	<u>2</u>	Chemical Engineers
Total	19 1/3	

R. G. Weiss
(*Aug 11/80*)

R. G. Weiss
VCM Health Coordinator
Chemicals Division
Process Engineering Department

lkm

CC:

WEG:RWG:JDBu:JJL:JDBr:KLS:REL:RDE

EMS:RTF:JFG:JWB:ERA:FK:WRS:RELa

RSM:CW:LH:JBH:ODS:RLl

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