

SEP 28 1967

TO: W. T. Gunning

DATE: September 27, 1967

LOCATION: Avon Lake General Chemical

FROM: Safety Department

SUBJECT: Inhalation of Vinyl Chloride Vapors - Lost Time Accident

On September 23, 1967, at approximately 1430 hours, chemical operator, [redacted] was cleaning Poly 17 in Bldg. 451 when he was overcome by vinyl chloride vapors. The poly had contained a Geon 120 x 127 charge that had to be dropped after two to three hours of reaction time because of instrument failure.

[redacted] had been in the poly about 25 minutes and had cleaned the poly walls from the top down, including part of the agitator shaft. He then filled the bucket with poly scrapings, climbed out of the poly and took it to the trash hopper. (At this time [redacted] made some remark to the charge operator, [redacted] about there being vinyl present in the poly. Dick reported he told J [redacted] to put the evacuation hose back in the poly and let it go because the poly had to be held down for a maintenance check so it could not be charged. He also said he did not know if [redacted] heard him as [redacted] made no reply but kept walking back to the poly.)

Because of the large amount of scrap in the poly, a four inch heel, [redacted] obtained a second basket and went back into the poly. At this point [redacted] started to break up the heel left in the bottom of the poly, which was a mixture of hard and spongy material. He filled one of the buckets with scrap which he passed to another helper, [redacted], to empty. [redacted] emptied the bucket, went down to the second floor to close the bottom valve on his own poly, number 20, and then returned to the third floor. Before entering P-20, [redacted] looked in P-17 and saw [redacted] leaning against the agitator shaft with his knees buckled beneath him.

[redacted] ran to [redacted] and told him what had happened. [redacted] went to the poly rescue cabinet, sounded the alarm and then went to Bldg. 461 for help. [redacted] entered Poly 17 to attempt the rescue. Because he did not have an air mask on, [redacted] was forced to leave the poly. [redacted] had returned to Poly 17 and he (without a mask) entered the poly to place the rescue rope about [redacted] ankles. [redacted] realized that he was being overcome by vinyl vapors and left the poly. [redacted] now had the air mask on and re-entered the poly, put the chain fall hook on the rescue rope and [redacted] was removed from the poly to the fire escape for fresh air. At this point [redacted] apparently was not breathing and [redacted] applied mouth to mouth resuscitation until [redacted] started to breath.

The ambulance arrived and took [redacted] to the hospital emergency room for treatment. Dr. Newman was notified and was in communication with the hospital. At 1630 hours the foreman, Bob Mick, and [redacted] returned to the plant. [redacted] changed clothes and was taken home.

[redacted] reported off from work Sunday because of nerves and nausea. Dr. Newman was notified of this and he called [redacted] and talked with him.

REDACTED

NGC 15587

Dr. Newman examined [redacted] on Monday morning, September 25, 1967 and returned him to his regular job. In the doctor's opinion, because of the medication received at the hospital, [redacted] could not have worked on Sunday.

A Board of Review was held on Monday, September 25, 1967 at 0815 hours. Present were R. N. Rylands, D. E. Fisk, W. T. Gunning, R. M. Sandfry, A. J. Gula, J. C. Meck, L. Linder, J. Abrahamowicz, and R. F. Gascoigne.

[redacted] related his experience as far as he could remember. [redacted] also reported to the board his part in the incident and Robert Mick read his report of investigation. A. J. Gula reported on the conditions of the vessel and equipment.

Conclusions:

1. The so called heel in the poly was unreacted vinyl, water which formed ice and a small amount of Geon. As the heel was broken, VCl vapors were liberated faster than the evacuation hose could carry them away.
2. At the time that [redacted] mentioned to Shindler that vinyl was present in the poly, [redacted] was already under the intoxicating effects of vinyl, which lead to his error of judgement in re-entering the vessel.
3. Poly 17 was not a normal charge and should have been inspected by the foreman with an explosimeter. Because of inexperience, the foreman was not notified.
4. There was a breakdown in communications for first aid services from the laboratory. Also there was a complete breakdown of our poly rescue procedure.

Recommendations:

1. All polys, other than normal charges, shall be called to the foreman's attention so that he may check the contents with an explosimeter. This is to include all polys with a large accumulation on the walls and/or bottom. The Safety Department shall be consulted on these polys before entry is made. Our safety procedures must be followed.
2. We must follow the poly rescue procedure when a person is to be rescued. Much time was lost in this rescue attempt because masks were not used at the onset.
3. Poly rescue procedure and poly cleaning specs will be a repeated topic for the ten minute safety meetings for all PVC and Latex polymerization employees. This is already being done by the General Foreman.

4. More emphasis will be placed, by all management personnel, on the poly check sheet to be assured that it is properly filled out and complied with. Our poly cleaner training program will be evaluated and improved as needed.
5. More emphasis is to be put upon the charge operator's responsibility over the poly cleaners job operations.
6. The buddy system will be stressed in all meetings because it is a must in our type of operations.

R. F. Gascoigne
Safety Inspector

RFG/gac

cc: A.Vittone-R.D.Scott
J.L.Nelson
G.Pow
D.L.Dowell
W.Brodine
W.Cato
R.N.Rylands
D.E.Fisk
R.M.Sandfry
J.C.Meck
R.E.Mick
A.J.Gula



REDACTED

SUPERVISOR'S REPORT OF ACCIDENT INVESTIGATION

PLANT A.L.G.C.		
DEPT. 566	AND P.R. NO.	AGE 24
APPROXIMATE EXPERIENCE IN THIS CLASSIFICATION 6 months YEARS		

1. NAME OF INJURY

2. JOB CLASSIFICATION

3. EXACT LOCATION OF ACCIDENT

(BE SPECIFIC)

4. DATE OF ACCIDENT

HOUR

1430

P.M.

WEATHER CONDITION

Fair

5. DESCRIBE THE INJURY - DAMAGE OR LOSS

LOST TIME

6. DESCRIBE THE ACCIDENT

(BE SPECIFIC. GIVE COMPLETE DETAILS)

☐ YES☐ NO

Employee said while cleaning Poly #17 that the bottom of the poly was plugged, he loosened the heel left in the poly to be water and resin. He then cleaned the poly down to the bottom. said he came out of the poly and dumped one bucket of scrap, he returned into the poly and filled two buckets with scrap, which were handed out to large, then he

7. EMPLOYEE'S ACKNOWLEDGMENT

SPECIFICALLY, WHAT WAS UNSAFE ABOUT THE VEHICLE, MACHINE, TOOL, EQUIPMENT OR PREMISES? (IF ANSWERED, SEE BELOW)

8.

UNSAFE
CONDITION

A heel was left in Poly #17 after blow down. This heel was unusual because it was unheated VCI and not shiny.

WHY, IN YOUR OPINION, DID UNSAFE CONDITION EXIST? (CHECK ITEM OR USE LINE "C")

A. ☒

NOT RECOGNIZED AS UNSAFE CONDITION

B. ☒

HIDDEN DEFECTS

C. ☐

9.

UNSAFE ACT

SPECIFICALLY, WHAT DID ANYONE DO, OR FAIL TO DO, THAT LED TO THIS ACCIDENT? (IF ANSWERED, SEE ITEM NO. 10 BELOW)

Entering poly after smelling VCI

10.

REASON FOR
UNSAFE ACT

WHAT SPECIFICALLY, IN YOUR OPINION, WAS REASON FOR UNSAFE ACT? (CHECK ITEM OR USE LINE "I")

A. ☐

DISREGARD OF INSTRUCTIONS

E. ☐

NOT CONVINCED ABOVE ACT UNSAFE

B. ☐

FAILURE TO UNDERSTAND INSTRUCTIONS

F. ☐

INATTENTION

C. ☐

DID NOT KNOW THE NEEDED METHOD

G. ☐

INDIFFERENCE (LACK OF INTEREST)

D. ☒

UNSKILLED (ABNORMALITY OF FROZEN HEEL)

H. ☐

MENTAL OR PHYSICAL CONDITION (EXPLAIN)

I. ☒ said he believes his judgment was affected by VCI, which he had breathed unknowingly.

11.

CORRECTIVE
ACTION

WHAT SPECIFIC ACTION HAVE YOU TAKEN TO CONTROL THE ABOVE UNSAFE ACT, UNSAFE CONDITION, AND REASON?

I told and the other helpers to always have the foreman check all polys, except normal polys before starting to clean.

12.

IS JOB METHOD ADEQUATE?

☒ YES☐ NO

IF "NO" ATTACH EXPLANATORY MEMO

DATE OF THIS REPORT

9-24-67

SIGNED

Robert E. M. b

REVIEWED AND APPROVED BY

Rm. Jandru, G.F.

NGC 15590

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