

TO	FIELD POINT OR DEPT. & BLDG. NO.	DATE YOUR LETTER
FROM	FIELD POINT OR DEPT. & BLDG. NO.	DATE THIS LETTER
SUBJECT		

Phillip Donataccio
Diana Friesz
July 15, 1992

Second Quarter 1992 Industrial Hygiene Summary - Henry Plant

Henry Plant personnel monitoring results for April through June of 1992 are summarized as follows:

- I. NOISE (BFG Exposure Limit = 50% dose)
(OSHA PEL = 100% dose)

NOISE EXPOSURE BY AREA

AREA	JOB CLASS	NO. OF MONITORINGS	NO. OF MONITORINGS >50% / >100%	EXPOSURE AVERAGE (% DOSE)	MAXIMUM EXPOSURE (% DOSE)
Dryer Bldg. (732)	Dryer Operator	6	3/3	123.11	205.88
	Foreman	1	1/0	72.47	72.47
	Silo Operator	2	0/0	32.93	45.36
Poly Bldg. (731)	Recovery Operator	1	0/1	103.20	103.20
	Paste/LoSope Operator	6	2/2	63.68	112.30
	Foreman	3	1/0	34.82	54.60
Maintenance (713)	PC Maintenance	1	0/0	24.36	24.36
	Machinist	1	0/0	10.34	10.34
Warehouse (735)	Warehouseman	1	0/0	37.16	37.16

Hearing protection was worn by all employees exposed to noise in excess of 85 dB (50% dose).

II. DUST (OSHA PEL = 10 mg/M³, 8-HR TWA)

Operators in the Dryer building were monitored for exposure to PVC total dust. A personal sampling pump (2.0 LPM) with a dust cassette and 5 micron PVC filter (pre-and post-weighed) were used. There were no exposures exceeding the permissible limit.

<u>JOB CLASS</u>	<u>NO. OF MONITORINGS</u>	<u>AVERAGE EXPOSURE</u>	<u>MAXIMUM EXPOSURE</u>
Bagger	1	2.51	2.51
Spray Dryer Operator	2	1.99	2.93
Pearl Dryer Operator	1	0.77	0.77
Contract Bagger	2	0.36	0.56

III. CARBON TETRACHLORIDE (OSHA PEL = 2 ppm, 8-HR TWA)
ISOPROPYL ALCOHOL (OSHA PEL = 400 ppm, 8-HR TWA)
METHYLENE CHLORIDE (Current OSHA PEL = 500 ppm, proposed OSHA PEL = 25 ppm, 8-HR TWA)

A laboratory operator was monitored with a large charcoal tube and personal sampling pump on a day when the above listed chemicals were used. The result of this monitoring was 0.4 ppm (CCL₄), 1.98 ppm (IPA) and 1.98 ppm (MeCl₂)

IV. ACETONITRILE (OSHA PEL = 40 ppm, 8-HR TWA)

Two 3114 operators performing various jobs were monitored for full-shift exposure to acetonitrile using a charcoal tube and personal monitoring pump. The exposure results were 0.44 ppm and 0.74 ppm.

V. ACETONE (OSHA PEL = 750 ppm, 8-HR TWA)

Two laboratory operators were monitored for full-shift exposure to acetone using a large charcoal tube and personal sampling pump. Both exposures were less than 2.0 ppm.

VI. TOLUENE (OSHA PEL = 100 ppm, 8-HR TWA)

Two Crude building operators, one X-70 operator and one OBTS (front end) operator were monitored for Toluene exposure using a 3M gas badge. All exposures were less than 1 ppm.

VII. VINYL CHLORIDE (OSHA PEL = 1 ppm, 8-HR TWA)

During the second quarter of 1992 there were 54 monitorings completed for vinyl chloride exposure (32 poly/22 dryer). Of the total monitorings, 9 (17%) exceeded 1 ppm and 40 (74%) were below 0.5 ppm. There were four monitorings, three in the poly building and one in the dryer building, that were above 1 ppm without respirator protection. These exposures are summarized below:

<u>Date</u>	<u>Operator</u>	<u>Job</u>	<u>Exposure Level</u>
4/03/92	Mike Schaefer	Ran R/S Prime and bagged	1.5 ppm
4/03/92	Joe Purtscher	Charge and recover LoSope	1.4 ppm
5/15/92	Wayne Hastings	Charge F76 and 213	3.60 ppm
6/12/92	Harold Sprague	Charge and recover LoSope	2.2 ppm

VINYL CHLORIDE EXPOSURE BY JOB CLASSIFICATION

<u>JOB CLASS</u>	<u>NO. OF MONITORINGS</u>	<u>NO. ABOVE 1 ppm</u>	<u>AVERAGE EXPOSURE (ppm)</u>	<u>MAXIMUM EXPOSURE (ppm)</u>
PVC Tank Farm	1	1	1.9	1.9
Poly Cleaner (enters polys)	3	2	1.6	2.5
Pearl Charge Operator	4	1	1.06	3.6
Paste/LoSope Charge	7	2	0.91	2.2
HRC Poly Cleaner/Helper	6	1	0.57	1.7
Recovery Operator	6	1	0.38	1.2
Dryer Operator	8	1	0.36	1.5
Poly Foreman	3	0	0.34	0.60
Valve Cleaner	1	0	0.23	0.23
Contract Bagger	3	0	0.18	0.24
Dryer Foreman	3	0	0.14	0.24
Catalyst Makeup	1	0	0.13	0.13
Bagger	5	0	0.11	0.15
Silo Operator	3	0	0.07	0.07

VII. MEDICAL SURVEILLANCE SUMMARY

Total number of Examinations - 48

Number of Examinations which showed:

- a. Hearing loss - 4
- b. Report by Department

Compounding - 1 (confirmed STS)
PC - 1 (to be retested)
PVC - 2 (to be retested)

Follow-up Activities:

1. Send letter to each employee stating they have a S.T.S.
2. Retest each employee within 21 days.
3. Reinstruct each employee in the proper use of hearing protection.
4. Reevaluate their working area.

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IX. PEL EXCEEDENCE INVESTIGATIONS

Board of Inquiry meetings were held for the second quarter vinyl chloride exposures that were greater than 1 ppm without respirator protection. Two exposures from the first quarter were also discussed: 1.6 ppm for Mark Hoffman on 1/31/92 while charging suspension resin and 1.1 ppm for Neil Thie on 3/22/92 while cleaning the ultrafiltration unit.

FACTS SURROUNDING THE INCIDENTS

1. Charging Pearl resin on 1/31/92.
2. He was absent from the meeting due to a recent transfer to the LaPorte Plant.

1. An experienced Foreman in the resin area.
2. While performing his normal duties, he assisted in the clean-up of the Ultrafiltration unit.
3. Past personal monitoring data has not shown high monitoring results for this task.
4. The building ventilation fans were not working properly, therefore Ammonia fumes were higher than normal in the building.

1. Mike has 3 years of service in the resin area.
2. He was operating the Resin Reclaim Dryer on prime material.
3. He bagged some resin while operating the dryer.
4. The dryer press was leaking water during the cake wash cycle due to a faulty diaphragm plate.
5. Mike was experiencing some feed plugging problems to the dryer.
6. He did not enter the Poly Building on this day.

1. has 17 years of service in the Geon area.
2. He was charging and recovering LoSope.
3. Building monitoring lights were low:
 - 5 lights above 1 ppm
 - 2 lights above 3 ppm
 - 0 lights above 15 ppm
4. The monitoring badge was exposed to Aqua Ammonia fumes.

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1. Wayne has 14 years of experience in the Geon area.
2. He charged F76 and 213 during the shift.
3. He found the poly evacuation blower not running.
4. Both _____ were monitored on the same day.
5. Wayne assisted in recovering the line to replace a valve in the Vinyl header to Poly #1.

1. Results of the Board of Inquiry have not been finalized yet.

CORRECTIVE ACTIONS

1. Complete area monitoring of Ultrafiltration Building during cleanup. - Rod Margin
2. Review past records for high readings during clean-up procedure. - Diana Friesz - completed. Reviewed 1991 and 1992 (thru May) data. No other high exposures were found.
3. Replace bad diaphragm plate. - Al Skutt - completed.
4. Complete area monitoring of 2nd floor in Resin Reclaim Building. - Rod Martin. Monitor at N/E corner of press on 6/14 = 0.84 ppm
5. Conduct OVA monitoring of Resin Reclaim wet hopper. - Rod Martin. Initial readings indicate that VCL levels inside of the wet hopper door may be higher if the blow back system in the flex kleen is not operating - continue investigation.
6. Monitor LoSope Operator during various tasks. - Rod Martin - completed.
7. Remonitor exposed operators - Rod Martin.

M. Hoffman - transferred to LaPorte Plant
N. Thie - 0.13 ppm (4/27), 0.057 ppm (5/17)
M. Schaefer - 0.32 ppm (5/11), 0.40 ppm (5/29)
J. Purtscher - 0.88 ppm (5/11), 0.19 ppm (5/29)
W. Hastings - 0.065 ppm (6/14)
8. Re-emphasize the correct procedure for opening the poly manhead. - Rod Martin
9. Spike a sample badge with Ammonium Laurate fumes to determine VCL interference potential - Diana Friesz - completed. Badge suspended over jar of ammonium laurate for 7 hours on 6/16 = 0.09 ppm. There is no apparent interference.

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10. Investigate the poly exhaust system for proper air flow. -
Ron Moore
11. Replace Poly #1 Vinyl valve. - completed
12. Start poly exhaust blower. - completed
13. Identify records so people with same last name are
monitored on different days.

Please call me at 9407 if you have any questions on this information.



Diana Friesz

DE/bs/9215

cc: D.M. Kidd	J.B. Mattingly
V.D. Marquis	T.L. Castor
R.I. Brinly	J.L. Schwarz
R.D. Moore	K.E. Musselman
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D.E. Giffin	R.J. Grahek - Cleveland
R.D. Webber	K.J. Willings - Brecksville
W.J. Grudzinski	S&E Operators (2)
J.D. Krumholz	PVC Foreman (4)
K.W. Prather	PC Foreman (4)
M.E. Guyer	File

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