

DELAWARE CITY PLASTICS CORPORATION
Delaware City Plant



April 14, 1982

TO: D. L. Lull

FROM: W. L. Cox

SUBJECT: Delaware City Health and Environmental Report--
March 1982

CC: Dr. R. McBurney
Messrs. E. Baier*
C. A. Burkins/P. L. Bowman
B. Christensen
R. E. Nagy
W. D. Peeples
J. E. Pyle/C. W. Greenberg/S. A. Kuhls
File No. R1* (* with att.)

I. Health

A. VCM

1. Personnel Exposure

- a. A total of 12 TWA samples were analyzed during March.
A copy of the results is attached (Exhibit I).

<u>VCM Range (ppm)</u>	<u>Number of TWA</u>	<u>Number of Masks Worn</u>
<1	12	6
1-5	0	0
5-10	0	0
>10	0	0

- b. There were no ceiling samples taken during March.
- c. Personnel exposure by area is summarized below and in Exhibit II.

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1. Personnel Exposure (continued)

<u>Month</u>	<u>Poly Area VCM (ppm)</u>	<u>Reclaim & Unloading Avg. VCM (ppm)</u>	<u>Incineration Avg. VCM (ppm)</u>
March, 1982	0.33	0.10	0.10
Feb., 1982	1.15	0.27	0.10
Jan., 1982	1.32	1.85	0.26
Dec., 1981	1.98	0.10	0.10
Nov., 1981	0.42	0.19	0.10
Oct., 1981	0.42	0.12	0.10
Sept., 1981	0.44	0.58	0.13
Aug., 1981	0.31	0.48	0.14
July, 1981	0.35	0.14	0.10
June, 1981	0.83	0.47	0.13
May, 1981	1.35	0.12	0.11
April, 1981	1.57	0.42	0.20
March, 1981	2.37	0.44	0.26

2. Area Surveys

The ARCAS area averages and area TWA readings for the control rooms are summarized in Exhibit III.

B. Dust

The suspension bagging area was surveyed this month. The highest nuisance and respirable levels were 2.84 mg/m^3 and 1.50 mg/m^3 , respectively. Data is included in Exhibit IV.

C. Noise

No noise testing this month.

D. Lead

Quantitative fit testing for lead respirators was conducted for compound plant personnel on 3/2 and 3/3. The abatement date of 3/9 was satisfied.

Personnel lead levels during the March run ranged from 74 to $503 \text{ } \mu\text{g/m}^3$ for the blender floor operators. Additional work is required. Data is included in Exhibit V.

II. Environmental

A. Air

The monthly VCM data is summarized below:

A. Air (continued)

1. Incinerators

0.13 ppm

2. Stripping

a. Latex

	<u>March</u>	<u>Year-to-Date</u>
Number of batches stripped	58	119
Average value (ppm)	908	770
Batches out of compliance	6	10
Excursions (24 hr. avg.)	1	2

b. Suspension

Slurry average (ppm)	11	62
Excursions (24 hr. avg.)	0	9

c. Waste Water

Monthly average (ppm)	4.8	3.9
Excursions (24 hr. avg.)	3	4

3. Reactor Openings

a. Suspension

Number of charges	453	2466
Number of openings	453	2466
Reactors sampled	19	64
Samples exceeding compliance limit	1	6

b. Paste

Number of charges	163	231
Number of openings	28	62
Reactors sampled	3	10
Samples exceeding compliance limit	0	1

4. Leak Detection

Leaks detected	45	177
Leaks repaired	30	177

A. Air (continued)

5. EPA Reportable Releases

There were no reportable releases in March.

6. <u>Total VCM Emissions</u>	<u>March</u>	<u>Year-to-Date</u>
a. Suspension Stripping		
Permitted pounds	980	5729
Actual pounds	28	886
Over/(under) pounds	(952)	(4842)
b. Paste Stripping		
Permitted pounds	1843	3176
Actual pounds	837	1285
Over/(under) pounds	(1006)	(1891)
c. Reactor Openings		
Permitted pounds	67	318
Actual pounds	13	150
Over/(under) pounds	(54)	(169)
d. Relief Valve Discharges		
Actual pounds	0	72

B. Solid Waste

- a. The State of Delaware has renewed our disposal permits for both on-site and NSWF until the end of 1982.
- b. The SCA Services, Inc. has submitted a proposal to haul and dispose of bio sludge, as is, for \$430 per load (15 tons). This is less than our current cost.
- c. On 3/11/82 we made our first hazardous waste shipment to Rollins Environmental. The shipment consisted of six drums of spent lab solvents.

III. Safety

A reactor entry and rescue program has been written, and training for the paste operators is underway. The abatement date of 4/9/82 will be met. It will be necessary to train the suspension operators before resuming operations.


R. A. Barrish


W. L. Cox

jds
Att.

OCC 11440

EXHIBIT I

PERSONNEL AND (AREA) CHARCOAL METHOD VCM ANALYSIS SHEETS

[illegible]

* Exposure slip issued.

* Air mask worn.

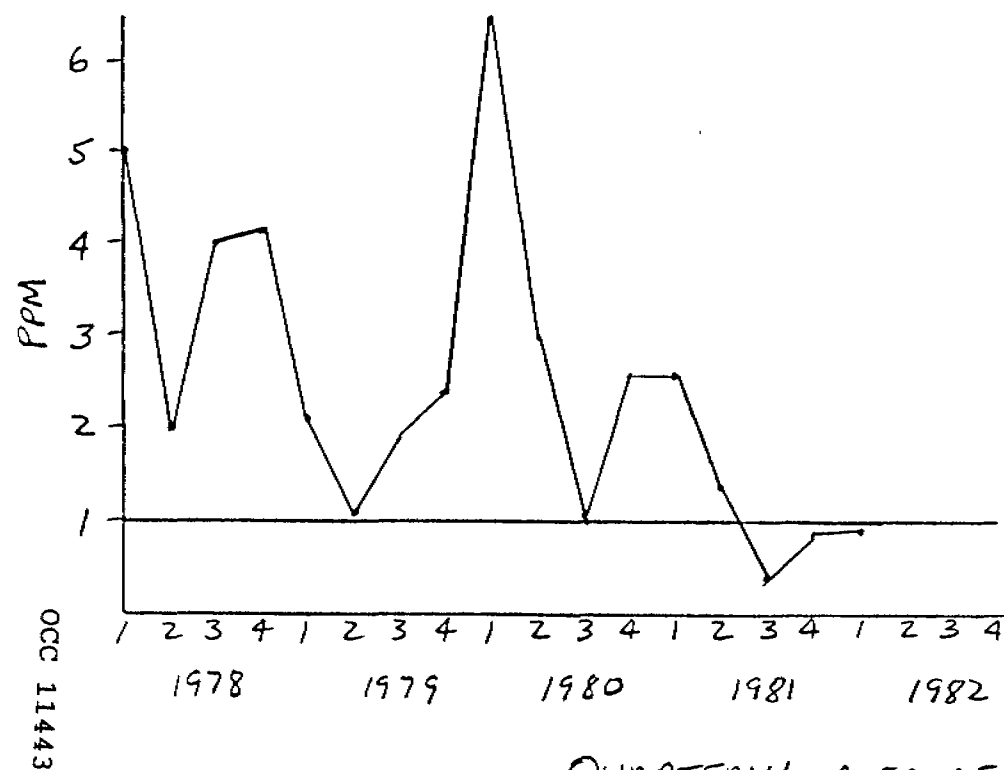
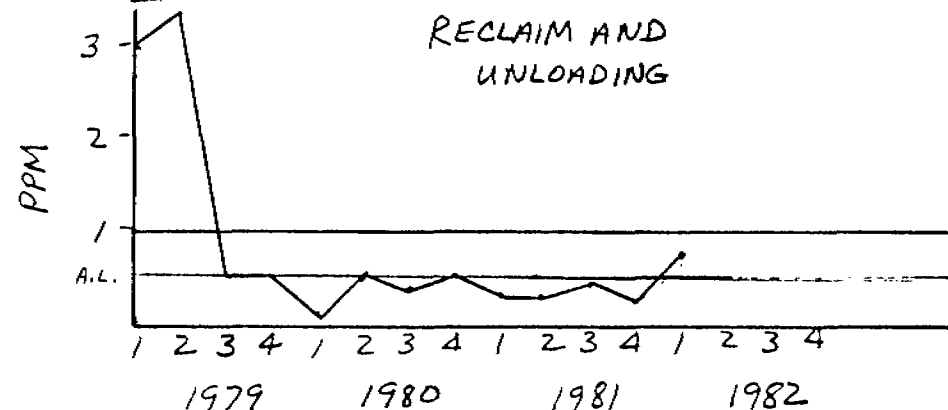
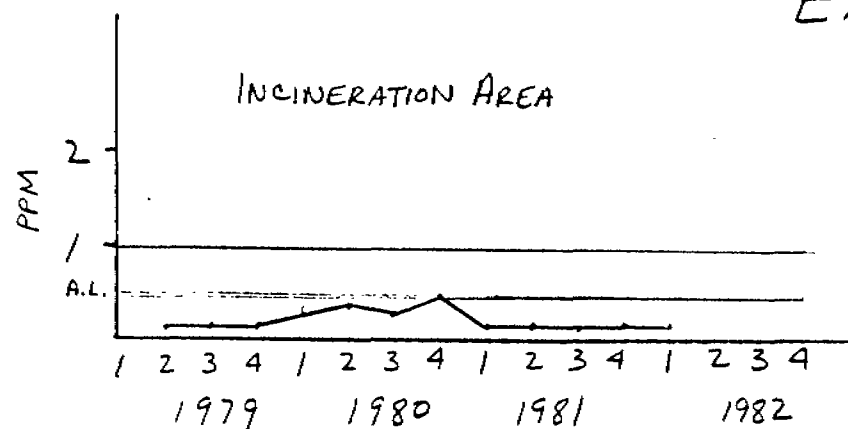
I

PERSONNEL

OCC 11442

* Air mask worn.

EXHIBIT II



QUARTERLY AVERAGES FOR PERSONNEL VCM SAMPLING (TWA)

EXHIBIT III

SUMMARY OF ARCAS AREA AVERAGES

MARCH, 1982

AREA	AVERAGE (PPM)	% <1.0 PPM
POLYMERIZATION	0.4	92.2
#1 SUSPENSION POLYMERIZATION	0.4	91.1
SUSPENSION CHARGE	0.4	90.4
SUSPENSION DROP	0.4	91.3
WEIGH ROOM	0.4	94.5
SUSPENSION BLOWDOWN	0.3	95.2
#2 PASTE POLYMERIZATION	0.4	92.4
#2 PASTE CHARGE	0.3	93.5
#2 PASTE DROP	0.4	93.0
#2 PASTE STRIP	0.4	94.7
#2 LATEX TRANSFER	0.5	85.4
#3 PASTE POLYMERIZATION	0.3	93.3
#3 PASTE CONDENSERS	0.2	94.8
#3 PASTE CHARGE	0.4	93.1
#3 PASTE DROP	0.7	85.7
#3 PASTE STRIP	0.3	92.2
#3 LATEX TRANSFER	0.3	93.8
RECLAIM AREA	0.2	96.5
UNLOADING AREA	0.1	98.2
INCINERATION AREA	0.0	100.0
BIO DEWATERING	0.0	99.7
BREATHING AIR	0.1	96.2

AREA READINGS FOR CONTROL ROOMS

AREA	ARCAS AVERAGES	% <1.0 PPM	TWA
SUSPENSION	0.3	88.2	0.34
#3 PASTE	0.0	98.9	0.36
PASTE DRYER	0.0	99.4	0.10
RECLAIM	0.2	99.0	0.10
INCINERATOR			0.10

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EXHIBIT IV

LOG SHEET

[illegible]

OCC 11445

EXHIBIT V LOG SHEET

NAME	DATE	PUMP #	MATERIAL BEING RUN	JOB FUNCTION	FLOW RATE	TIME		DUST MASK WORN	ANALYTICAL RESULTS		TWA		COMMENTS
						ON	OFF		Pb	Sb	Pb	Sb	
REA	3-19-82	7150	4579 T-24	BLENDER FLOOR CONTROL ROOM	816	0740	1425		11.25		15.7		
REA	3-23-82	7150	2172A-B10	BLENDER FLOOR CONTROL ROOM	830	0730	1425		11.5		13.9		
MACGORD	3-25-82	3394	WE-646A	BLENDER FLOOR OPERATOR	424	0738	1110	X	42.75		101		
MCAMMAN	3-25-82	3398		BLENDER FLOOR OPERATOR	416	0737	1105	X	83		200		
DALE	3-25-82	3394		BLENDER FLOOR OPERATOR	370	1130	1435	X	45.5		123		
CHING	3-25-82	3398		BLENDER FLOOR OPERATOR	400	1115	1435	X	201		503		
REA	3-25-82	4749		ON TOP OF BLENDER	830	0740	1435		169.5		204		
REA	3-25-82	4754		AIR PALLET STAND	830	0740	1435		51		61.4		
REA	3-25-82	7150		BLENDER FLOOR CONTROL ROOM	830	0740	1435		45		54		
REA	3-26-82	3394		ON TOP OF BLENDER	780	0805	1435		75.5		96.8		
REA	3-26-82	3398		AIR PALLET STAND	780	0805	1435		38.25		49		
REA	3-26-82	4749		BLENDER FLOOR CONTROL ROOM	780	0805	1435		42.25		54.2		
MACGORD	3-26-82	4754		BLENDER FLOOR OPERATOR	390	0803	1118	X	69.5		178		
MCAMMAN	3-26-82	7150		BLENDER FLOOR OPERATOR	376	0804	1112	X	170		452		
DALE	3-26-82	4754		BLENDER FLOOR OPERATOR	374	1120	1427	X	27.75		74.2		
HARRIS	3-26-82	7150	WE-646A	BLENDER FLOOR OPERATOR	390	1115	1430	X	67		172		
LANE									4				

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DIAMOND SHAMROCK CORPORATION
Health & Environmental Affairs