

DIAMOND SHAMROCK PLASTICS CORPORATION
Delaware City Plant

Scan

TO: J. R. Semancik*

FROM: R. A. Barrish*

SUBJECT: Delaware City Health and Environmental Report -- September 1981

CC: Dr. R. McBurney
Messrs. **E. Baier***
J. A. Bailey
D. C. Bobish/J. E. Pyle/C. W. Greenberg/S. A. Kuhls
B. Christensen
C. A. Burkins/P. L. Bowman
R. F. Cronin/W. D. Peeples
D. L. Lull
R. E. Nagy
S. W. Schaefer
File No. E1* (* with attachments)

I. Health

A. General

On September 29th the OSHA inspector conducted the closing conference for the 1981 inspection. With respect to VCM standard, we are the state of the art. Exposure levels are as low or lower than other PVC producers. All engineering and administrative controls, medical surveillance, respiratory protection, and recordkeeping are good. There will be no citation for VCM exposure. From the 1978 citation all items but lead exposure have been abated.

Apparent violations from the 1981 inspection are inadequate confined space program (reactor rescue), eye and body ~~waste~~ ^{wash} in reclaim area, and five alleged violations of the lead standard. None of the violations are considered willful. Because the lead standard has changed since 1978, the lead exposure violation will not be considered a repeat. The formal citation is expected in October.

B. VCM

1. Personnel Exposure

- a. A total of 16 TWA samples were analyzed during September. 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	13	8
1-5	3	3
5-10	0	0
>10	0	0

1. Personnel Exposure (cont'd)

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

Month	Poly Area VCM (ppm)	Bio Plant Avg. VCM (ppm)	Reclaim & Unloading Avg. VCM (ppm)	Incineration Avg. VCM (ppm)
Sept., 1981	0.44	2.06	0.58	0.13
Aug., 1981	0.31	0.10	0.48	0.14
July, 1981	0.35	0.10	0.14	0.10
June, 1981	0.83	0.10	0.47	0.13
May, 1981	1.35	0.10	0.12	0.11
April, 1981	1.57	0.44	0.42	0.20
March, 1981	2.37	0.27	0.44	0.26
Feb., 1981	1.30	0.10	0.93	0.12
Jan., 1981	3.47	0.18	1.07	0.21
Dec., 1980	1.36	0.10	0.22	0.10
Nov., 1980	2.82	0.10	0.31	0.1
Oct., 1980	3.71	0.10	1.24	1.18
Sept., 1980	1.30	0.10	0.36	0.1

2. Area Surveys

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

C. Dust

There was no dust sampling during September. Sampling will resume in October.

D. Noise

There were no noise surveys during September. The new noise dosimeters still have not been received. The Compound Plant will be surveyed when they arrive.

E. Lead

There was no lead sampling during September. There was a thorough cleaning of the Compound Plant during a two week outage in preparation for a lead run in mid-October. The respiratory program has been upgraded with the addition of the 3M 9910 masks and the associated respiratory training program.

II. Environmental

A. Air

The six month report was sent to EPA on September 15.

There still has been no action by the Federal EPA concerning our response on safety valve releases.

On September 21, the State inspected five emission sources for permit renewal; four purge stacks APC-79/138, 139, 140, 141, and the incinerator and scrubber lines APC-79/280. The permits expire on October 21, 1981. All will be renewed with no problem. A request for a modified permit on the bulk lead system was also ruled on favorably.

The monthly VCM data is summarized below:

1. Incinerators

0.32 ppm

2. Stripping

a. Latex

	<u>September</u>	<u>Year-to-Date</u>
Number of batches stripped	209	2,345
Average value (ppm)	1,049	992
Batches out of compliance	20	292
Excursions (24 hr. average)	0	10

b. Suspension

Slurry average (ppm)	11	28
Excursions (24 hr. average)	0	3

c. Wastewater

Monthly average (ppm)	2.3	2.7
Excursions (24 hr. average)	1	9

3. Reactor Openings

a. Suspension

Number of charges	1,099	12,217
Number of openings	1,099	12,217
Reactors sampled	21	210
Samples exceeding compliance limit	1	23

3. Reactor Openings (cont'd)

b. <u>Paste</u>	<u>September</u>	<u>Year-to-Date</u>
Number of charges	205	2,317
Number of openings	52	695
Reactors sampled	4	45
Samples exceeding compliance limit	0	5

4. Leak Detection

Leaks detected	95	1,100
Leaks repaired	115	928

5. EPA Reportable Releases 1 3

There was an EPA reportable PSV release on September 12. Over-charging water to a reactor due to a faulty valve resulted in a discharge of 135 pounds.

A State reportable release occurred on September 29. VCM was charged to a reactor with the air vac open. This resulted in an emission of 200-300 pounds.

6. Total VCM Emissions

a. <u>Suspension Stripping</u>	<u>September</u>	<u>Year-to-Date</u>
Permitted pounds	2,612	28,640
Actual pounds	75	2,080
Over/(under) pounds	(2,537)	(26,613)
b. <u>Paste Stripping</u>		
Permitted pounds	2,262	26,969
Actual pounds	1,186	13,350
Over/(under) pounds	(1,076)	(13,620)
c. <u>Reactor openings</u>		
Permitted pounds	153	1,699
Actual pounds	32	1,140
Over/(under) pounds	(121)	(560)
d. <u>Relief Valve Discharges</u>		
Actual pounds	1	2,355

B. Solid Waste

1. Monitoring of the on-site PVC landfill continues. Air readings continue to be below 0.10 ppm. Well water samples are being taken monthly.
2. The EPA and FBI are investigating the activities of several waste haulers during the period 1976-1979. One of the haulers, Inland Pumping and Dredging, hauled and disposed of our waste during this period. All invoices and manifests that were available for this period of time were assembled and sent to our Corporate Legal Department.

III. Safety

Reactor Rescue Procedure Modifications

A new block and tackle assembly was tested. It was determined that wristlets are the fastest and most successful technique in carrying out the rescue. A kit consisting of an air hose and full face mask, safety wristlets, a neck brace and oxygen supply should be available.

Another test will be conducted after a block and tackle with a top swivel joint is received.



R. A. Barrish

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Attachments