



INTER-ORGANIZATION MEMO

TO: H. Graff
ATTENTION: R. Jackson, G. Brumbaugh
W. Staples, R. Laundrie
FROM: E. Kierstead
DATE: July 9, 1982
SUBJECT: 8-hour Area TWA Data -
Taken from Bendix Tapes -
Summary for June, 1982

This report is a summary of 1846 samples of Vinyl Chloride Monomer (VCM) 8-hour data, taken from the Bendix continuous monitoring tapes, for the month of June, 1982.

A. Non-Regulated Areas (Tables I & II)

1. Three hundred twenty-eight (328) samples (94.5%) were below .5 ppm, 16 samples (4.6%) were from .51 to 1.0 ppm, and 3 samples (0.9%) were over 1.0 ppm. This was a decrease from the 2.8% over 1.0 ppm in May.
2. The overall plant average for non-regulated areas decreased from .22 to .17 ppm.

B. Regulated Areas (Tables III & IV)

1. Three hundred ninety-seven (397) samples (29.3%) were below .5 ppm, 125 samples (9.2%) were from .51 to 1.0 ppm, and 835 samples (61.5%) were over 1.0 ppm. This was a decrease from the 65.4% over 1.0 ppm in May.
2. The monomer area decreased from .5 to .3 ppm, upstairs polymer decreased from 8.9 to 7.6 ppm, polymer walkway decreased from 3.9 to 3.8 ppm, and downstairs polymer increased from 13.0 to 13.4 ppm.
3. The overall plant average for regulated areas decreased from 7.32 to 7.00 ppm.

- C. The overall plant average for regulated and non-regulated areas decreased from 5.51 to 5.19 ppm.

E. Kierstead

E. S. Kierstead
OSHA Compliance Supervisor

ESK/ikb

APPROVAL:

Roy L. Jackson 7/13
Roy L. Jackson

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TABLE 1

CONTINUOUS VCL MONITORING SYSTEM
8 Hour T.W.A. SUMMARY DATA
PPM VCL

Year 1982

NON-REGULATED AREAS	Month - <u>MAY</u>							Month - <u>JUNE</u>						
	No. Samples Taken	Mean	High	Low	No. Samples Below .5 ppm	No. Samples .5 to 1 ppm	No. Samples Over 1 ppm	No. Samples Taken	Mean	High	Low	No. Samples Below .5 ppm	No. Samples .5 to 1 ppm	No. Samples Over 1 ppm
Monomer Control Room	85	.1	.5	.0	85	0	0	79	.1	.4	.0	79	0	0
Polymer Control Room	59	.4	2.9	.0	39	16	4	63	.1	1.7	.0	58	4	1
Boilerhouse	85	.1	1.1	.0	83	1	1	79	.1	.3	.0	79		
Shop	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laboratory	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Resin Finishing	62	.3	2.8	.1	50	9	3	63	.3	.9	.0	57	6	0
Warehouse	62	.3	1.6	.0	51	9	2	63	.3	1.5	.0	55	6	2
TOTAL	353				308	35	10	347				328	16	3
Breathing Air	62	.12	.58	.01	61	1	0	63	.03	.25	.00	63	0	0
Gas Holder	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Incinerators	76	1.1	2.8	.1	28	19	29	79	.3	1.3	.1	69	9	1
Boilerstack	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	138				89	20	29	142				132	9	1

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CONTINUOUS VCL MONITORING SYSTEM

SUMMARY DATA

8 HOUR T.W.A. - MEAN ppm VCL

TABLE II

Year 1982

	AVE.												
	1981	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
* NON-REGULATED AREAS													
* Monomer Control Room	.1	.1	.1	.1	.1	.1	.1						
* Polymer Control Room	.1	.1	.1	.1	.3	.4	.1						
* Boilerhouse	.2	.2	.2	.2	.1	.1	.1						
* Shop	—	—	—	—	—	—	—						
* Laboratory	—	—	—	—	—	—	—						
* Resin Finishing	.2	.2	.3	.2	.2	.3	.3						
* Warehouse	.2	.1	.2	.2	.2	.3	.3						
Breathing Air	.12	.08	.07	.04	.03	.12	.03						
Gas Holder	.6	.6	.5	—	—	—	—						
Incinerator ^{USING} (NEW INCINERATOR - MAY)	.2	.2	.2	.2	.2	1.1	.3						
Boilerstack	.2	—	—	—	—	—	—						
* NON-REGULATED AREA, AVE.	.18	.14	.18	.16	.19	.22	.17						
AVE.													
No. of Samples	399	407	366	457	305	353	347						
No. of Samples Below .5 ppm	377	400	346	435	293	308	328						
No. of Samples From .51 to 1.0 ppm	18	5	11	21	8	35	16						
No. of Samples Over 1.0 ppm	4	2	9	1	4	10	3						
% of Samples Below .5 ppm	94.6	98.3	94.5	95.2	96.0	87.3	94.5						
% of samples From .51 to 1.0 ppm	4.4	1.2	3.0	4.6	2.6	9.9	4.6						
% of Samples Over 1.0 ppm	1.0	0.5	2.5	0.2	1.4	2.8	.9						
* BREATHING AIR, GAS HOLDER, INCINERATOR AND BOILER STACK NOT INCLUDED													

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CONTINUOUS VCL MONITORING SYSTEM
8 Hour T.W.A. SUMMARY DATA
PPM VCL

INDEX III

Year 1982

REGULATED AREAS	Month - MAY							Month - JUNE						
	No. Samples Taken	Mean	High	Low	No. Samples Below .5 ppm	No. Samples .5 to 1 ppm	No. Samples Over 1 ppm	No. Samples Taken	Mean	High	Low	No. Samples Below .5 ppm	No. Samples .5 to 1 ppm	No. Samples Over 1 ppm
MONOMER (MVC)														
MVC unloading	85	.4	8.5	.0	76	2	7	79	.4	11.4	.1	69	7	3
MVC storage-West	85	.3	1.3	.0	72	10	3	79	.2	1.1	.1	76	2	1
MVC storage East	62	.4	11.2	.0	56	5	1	63	.2	3.3	.0	60	1	2
MVC 108 Recycle Pump	85	.3	9.1	.1	80	3	2	79	.5	4.8	.0	73	5	1
MVC Pump House	62	1.1	9.7	.2	29	18	15	63	.2	1.2	.1	59	3	1
THF area	—	—	—	—	—	—	—	—	—	—	—	—	—	—
POLYMER-UPSTAIRS 2B KO POT	84	2.4	44.8	.2	30	25	29	79	3.6	70.1	.1	28	20	31
Reactor 311/301-311	62	4.8	38.9	.8	0	7	55	63	5.4	101.0	.6	0	4	59
Reactor 307/303-308-313	85	5.3	31.5	1.8	0	0	85	79	3.9	10.0	.7	0	4	75
Reactor 315/316-306-315	85	3.8	24.3	1.0	0	3	82	79	2.4	23.5	.6	0	19	60
MVC Weight Tank	62	29.0	185.0	2.0	0	0	62	63	28.7	203.0	1.2	0	0	63
Vent Compressor/SOUTH END	85	6.2	47.5	1.9	0	0	85	79	5.2	13.4	1.5	0	0	79
POLYMER-WALKWAY														
Reactor 311/302-310-312	62	3.9	26.8	.6	0	9	53	63	4.3	22.5	.3	2	9	52
Reactor 315/305-307-315	85	3.9	30.9	.5	1	11	73	79	3.4	33.8	.5	2	16	61
POLYMER-LOWER														
No. 4 Compressor	62	19.5	310.0	.5	2	9	51	63	9.5	49.8	.2	7	3	53
No. 1A Dump Tank/NORTH END	85	4.9	84.1	.4	1	9	75	79	4.4	75.2	.4	4	19	56
No. 3A Dump Tank/SOUTH END	85	15.7	259.0	.6	0	1	84	79	6.8	78.2	.3	5	2	72
MVC Charge Pumps	62	12.1	194.0	.1	2	15	45	63	28.8	526	.0	8	8	47
GAS HOLDER KO POT/														
Vapor Break Tank	62	10.7	41.0	.2	3	8	51	63	17.8	135.0	.3	4	3	56
Recovered MVC	62	16.9	188.0	1.5	0	0	62	63	17.3	153.0	1.5	0	0	63
TOTAL	1407				352	125	920	1357				397	125	835

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CONTINUOUS VCL MONITORING SYSTEM
SUMMARY DATA

8 Hour T.W.A. - Mean ppm VCL

TABLE IV

Year 1982

	1981	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
REGULATED AREAS													
MONOMER (MVC)													
MVC unloading	.2	.3	.3	.2	.1	.4	.4						
MVC storage-West	.3	.2	.2	.2	.2	.3	.2						
MVC storage-East	.3	.2	.2	.2	.2	.4	.2						
MVC 508 Recycle Pump	.3	.3	.2	.2	.2	.3	.5						
MONOMER PUMP/HOUSE	1.3	2.2	1.5	1.3	.8	1.1	.2						
THF area	—												
POLYMER-UPSTAIRS 2B Ro Pot	2.3	1.6	.7	.4	.7	2.4	3.6						
Reactor 311 / 301-311	6.2	6.4	3.1	3.7	2.7	4.8	5.4						
Reactor 307 / 303-308-313	8.6	9.8	7.4	5.3	4.9	5.3	3.9						
Reactor 315 / 316-306-315	5.4	5.6	6.4	4.5	4.0	3.8	2.4						
MVC Weight Tank	6.7	5.9	3.7	9.0	5.4	29.0	28.7						
Vent Compressor / South END	4.9	3.0	2.4	2.6	3.2	6.2	5.2						
POLYMER-WALKWAY													
Reactor 311 / 302-310-312	6.2	19.5	6.7	2.0	2.1	3.9	4.3						
Reactor 315 / 305-307-315	6.0	4.0	1.6	2.0	2.3	3.9	3.4						
POLYMER-LOWER													
No. 4 Compressor	5.9	13.2	13.4	4.4	11.4	19.5	9.5						
No. 1A Dump Tank / North END	4.4	7.5	2.9	1.5	2.3	4.9	4.4						
No. 3A Dump Tank / South END	4.3	8.6	5.1	5.3	4.8	15.7	6.8						
MVC Charge Pumps	11.4	20.3	5.9	4.8	5.2	12.1	28.8						
GAS HOLDER RO POT1	4.4	3.8	13.0	5.2	6.5	10.7	17.8						
Vapor Break Tank													
RECOVERED MVC	2.5	2.5	3.2	3.7	5.4	16.9	17.3						

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CONTINUOUS VCL MONITORING SYSTEM
SUMMARY DATA
8 HOUR T.W.A.- MEAN ppm VCL

TABLE IV
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Year 1982

REGULATED AREAS	1981	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
AVE.													
No. of Samples	1525	1462	1341	1667	1111	1434	1357						
No. of Samples Below .5 ppm	432	423	376	505	336	352	397						
No. of Samples From .51 to 1.0 ppm	193	123	155	220	169	131	125						
No. of Samples Over 1.0 ppm	900	916	810	942	606	950	835						
% of Samples Below .5 ppm	28.3	28.9	28.0	30.3	30.2	25.0	29.3						
% of Samples From .51 to 1.0 ppm	12.7	8.4	11.6	13.2	15.2	9.6	9.2						
% of Samples Over 1.0 ppm	59.0	62.7	60.4	56.5	54.6	65.4	61.5						
REGULATED AREA, AVE.	—	5.43	3.57	3.00	3.47	7.32	7.00						
Overall Plant Average	3.02	3.85	2.64	2.21	2.56	5.51	5.19						
Of Regulated And													
Non-Regulated Areas													
MONOMER AREA, AVE.	.5	.6	.4	.4	.3	.5	.3						
POLYMER UPSTAIRS, AVE.	5.6	5.4	4.0	4.3	3.6	8.9	7.6						
POLYMER WALKWAY, AVE.	5.6	8.0	2.6	2.0	2.2	3.9	3.8						
POLYMER DOWNSTAIRS, AVE.	5.6	9.6	6.4	4.2	6.4	13.0	13.4						

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