

LOUISIANA DIVISION INDUSTRIAL HYGIENE REPORT
THE DOW CHEMICAL COMPANY

LAD-95-1975-10

File Number

10/16/95

Date

Title: Results of vinyl chloride, noise, chloroform, carbon tetrachloride, 1,1,2 trichloroethane, perchloroethylene, trans 1,2,3, trichloropropene, cis 1,2,3, trichloropropene, hexachloroethane, heaxachlorobutadiene, and hexachlorobenzene monitoring for Vinyl I Plant During 1975.

SUMMARY:

During 1975 vinyl chloride, noise, chloroform, carbon tetrachloride, 1,1,2 trichloroethane, perchloroethylene, trans 1,2,3, trichloropropene, cis 1,2,3, trichloropropene, hexachloroethane, heaxachlorobutadiene, and hexachlorobenzene monitoring was conducted at Vinyl I Plant.

Results are presented in the attached tables.

Coversheet prepared by:

J. Paul

DISTRIBUTION:

None

Restricted for use within The Dow Chemical Company

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5 ppm Air

$\frac{1}{2}$ Exposure

		Area 1970	Area 1972	Personell 1974
SST	$\frac{1}{2}$ -	2.8 ppm	0.21	
S/S	-	1.1	0.1	0.44
ST	LHB -	0.42	0.18	2.0
95	Re-ut -	0.21	0.11	0.66
ST	Re-tet -	0.27	0.10	0.37
2T	Re-tet -	0.27	0.11	0.33
	(OS $\frac{1}{2}$)		.19	1.48

Personell recorded 1974

$\frac{1}{2}$ OS catching & running samples (highest Exposure)
(15 min. samples)

John C. → 2.3 ppm

John C. → 2.3

John G → 3.2

Changing the

OLD method 2' DOWN WIND from Dome
= 340 ppm

NEW Method

2.0 → None Detected

(THIS IS WHAT WE ARE USING)

1) Which samples:

1) Loading $\frac{1}{2}$ TANK tanks $\rightarrow$.09 ppm

2) DOWN WIND OF JETS
Before EXCHANGER CHANGE OUT $\rightarrow$ 56 ppm

3) 7. HACKLER IN LAB SOT $\rightarrow$ NOISE DETECTED
4-5 SAND. PERSONNEL MONITORING

4) Central tanks can loading $\rightarrow$ 0.1 to .01 ppm
(area monitor)
noise detected on personal monitors

5) Re-charging C-93 at filter AIR MACK
50 95 ppm

6) $\frac{1}{2}$ losses to UNDER EFFLUENT
PRIOR TO #2 ABOVE $\text{Rate} = 770 \text{ L/JAY}$
AFTER $\text{Rate} = 170 \text{ L/JAY}$

AVG. 8 HR
WORK AREA
EXPOSURE
PPM

PPB
LEVEL
OF
DETEC
TION

EMPLOYEE NO.
JOB CLASSIF.
YRS. IN SOLV.

6. RACHAL MILLER, J. CHEMIN ZERINGUE H. SON

N-101	C-101	P-101	Q-101	R-101
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J.O.T.	O.S.	O.S.	J.O.T.	O.S.
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2	8	10	0.5	10
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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N.D.	N.D.	N.D.	N.D.	N.D.
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N.D.	19.7	20.2	21.7	8.2
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NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11	NO. 12	NO. 13	NO. 14	NO. 15	NO. 16	NO. 17	NO. 18	NO. 19	NO. 20	NO. 21	NO. 22	NO. 23	NO. 24	NO. 25	NO. 26	NO. 27	NO. 28	NO. 29	NO. 30	NO. 31	NO. 32	NO. 33	NO. 34	NO. 35	NO. 36	NO. 37	NO. 38	NO. 39	NO. 40	NO. 41	NO. 42	NO. 43	NO. 44	NO. 45	NO. 46	NO. 47	NO. 48	NO. 49	NO. 50	NO. 51	NO. 52	NO. 53	NO. 54	NO. 55	NO. 56	NO. 57	NO. 58	NO. 59	NO. 60	NO. 61	NO. 62	NO. 63	NO. 64	NO. 65	NO. 66	NO. 67	NO. 68	NO. 69	NO. 70	NO. 71	NO. 72	NO. 73	NO. 74	NO. 75	NO. 76	NO. 77	NO. 78	NO. 79	NO. 80	NO. 81	NO. 82	NO. 83	NO. 84	NO. 85	NO. 86	NO. 87	NO. 88	NO. 89	NO. 90	NO. 91	NO. 92	NO. 93	NO. 94	NO. 95	NO. 96	NO. 97	NO. 98	NO. 99	NO. 100
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28.0	8.0	10	9.0	12
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NO. 100-100000

A.D. A.D. A.D. A.D. A.D.

TRACE TRACE TRACE TRACE TRACE

20	TRACE	TRACE	TRACE	TRACE
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151	380	230	46	242
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54	616	310	14	716
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9/75

CHLORINATED HYDROCARBONS IN HUMAN WHOLE BLOOD SAMPLES (PARTS PER BILLION)

3 HR AREA DETECT CON	PPB EMPLOYEE NO. JOB CLASSIF. YRS IN SOLV.	F-101	B-101	H-101	E-101	G-101	C-101	I-101	D-101	J-101	K-101	L-
		S.O.T.	S.O.T.	S.O.T.	S.O.T.	J.O.T.	S.S.	S.S.	O.S.	O.T.	S.O.T.	S.
		8	2	2	3	1	16	16	8	2	5	2
5	VINYLDENE CHLORIDE	N.D.	N.D.	TRACE	TRACE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.
25	CHLOROFORM	TRACE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.
<1	CARBON TETRACHLORIDE	50	N.D.	38	30	11	32	N.D.	16	1.0	56	3
25	1,1,2 TRICHLORO ETHANE (BETA-TRI)	TRACE	N.D.	N.D.	N.D.	TRACE	N.D.	N.D.	N.D.	N.D.	N.D.	N.
<1	PERCHLORO ETHYLENE	9	11	11	22	7	7	6	9	5	2	2
20	TRANS 1,2,3,- TRICHLOROPROPENE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.
10	CIS 1,2,3 TRICHLOROPROPENE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.
<1	HEXACHLORO- ETHANE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	N.D.	TRACE	TRA
<1	HEXACHLORO- BUTADIENE	TRACE	TRACE	1.3	1.0	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRA
2	HEXACHLORO (OCT.) BENZENE (1975)	397	151	167	210	54	320	470	644	46	211	22
<1	HEXACHLORO (DEC.) BENZENE (1975)	55	5	93	100	2	342	55	698	-	417	53

VINYL CHLORIDE PLANT

COMPOUNDS MEASURED

PPM MOLE 15 MINUTE EXCURSTON

REMARKS :

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