

VCM MONITORING - WORKPLACE ENVIRONMENTS

DISPERSION VINYL RESIN UNIT

SOUTH CHARLESTON PLANT

SUMMARY

Pursuant to Part 1910 - Occupational Safety and Health Standards, Emergency Temporary Standard for Exposure to Vinyl Chloride, Section 1910.93q, effective April 5, 1974, personal monitoring was initiated at the subject location on March 11, 1974. Detailed sampling and analytical methods appear in Section XI of this report.

Personal monitoring records are documented following this summary. In addition to personal identification of employees and monitoring results, job tasks which are either suspected or known to be associated with significant exposure potential are noted.

Monitoring results obtained by use of a continuously operated gas chromatograph, maintaining surveillance of ambient air at nineteen (19) strategically located sampling points, are also presented. (See descriptive list and unit plot plan for locations.) In addition to serving as an excellent leak test monitor, the instrument provides an insight to potential personnel exposure directly related to specific job tasks and work practices. Other instrumentation used to aid in control strategy (leak testing) are the Miran Infrared Spectrophotometer, J&W TLV Sniffer and the Century Organic Vapor Detector.

With the advent of the Emergency Temporary Standard, a Management directive was issued regarding strict enforcement of appropriate respiratory protection use by all employees when VCM concentrations are suspected or at any time known to exceed 50 PPM as previously determined by monitoring methods described above.

Anticipating a dramatic change in permissible exposure and, having already identified most inherently affected areas, e.g., opening, cleaning or sampling reactors, provision of respiratory protective equipment was in progress prior to the effective date. Attached are memos identifying the affected areas and job tasks and instructions pertaining to use of respiratory equipment. Appropriate revisions, deletions or additions will be made to the listed work practices as the result of future studies and implementation of engineering control.

W. C. Young/jve

7/12/74

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LOCATION OF VCI SAMPLE POINTS FOR GAS CHROMATOGRAPH

1.	Between VCI Filters and C-31	200# Level
2.	Control Room - 2nd Floor	200# Level
3.	Between C-37 and C-39	125# Level
4.	Between C-41 and C-43	125# Level
5.	Between and North of C-46 and C-47	200# Level
6.	Between C-33 and C-34	200# Level
7.	Between and South of C-34 and C-36	200# Level
8.	Between C-38 and C-40	125# Level
9.	Between C-42 and C-44	125# Level
10.	At Dryer Switch Bank	Pad Level
11.	Over Sump at Latex Tanks Switch Bank	Pad Level
12.	At 400# Filter Station	Pad Level
13.	Between C-33 and C-34	Pad Level
14.	At 200# Filter Station	Mezzanine Level
15.	At 125# Filter Station	Mezzanine Level
16.	Between C-39 and C-40	Pad Level
17.	Between C-43 and C-44	Pad Level
18.	Dryer Control Board	Compressor Room
19.	Between Homogenizers and 61 Compressor	Compressor Room
20.	Check Sample	100 PPM

JLW/cd/jve

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SAFETY NOTES

A new temporary standard outlining personnel exposure to Vinyl Chloride goes into effect 4-6-74. This standard states that no persons shall be knowingly exposed to VCl concentrations greater than 50 ppm.

We have at the present time many operations which cause VCl concentrations greater than 50 ppm. Therefore, until otherwise notified it is MANDATORY THAT THE FOLLOWING PROCEDURES BE CARRIED OUT USING A FRESH AIR SUPPLIED BREATHING APPARATUS.

(See Supplementary List)

A. CHARGING OPERATOR

1. Dumping cat into cat pot.
2. Cleaning the VCl filters.
3. Cleaning the homo suction filters.
4. Venting down the charging line.
5. Cleaning the Sarco homo suction filter.
6. Decanting 2805 VCl tank.

B. DRYER OPERATOR

1. Changing Dollenger manual filters.
2. Switching Latex tanks at dryer switch bank.
3. Getting Latex sample to run total solids.
4. Blown gasket No. 1 or No. 2 MG pumps (shut down pump and get out of room).
5. Wherever Latex is discharged to atmosphere by opening a valve or breaking a flange connection.

C. TRANSFER OPERATOR

1. Changing manual Dollenger filters.
2. Backwashing Dorr Oliver & Cuno filters.
3. Cleaning 2940 foam trap.
4. Dumping broken pots.
5. Switching hose connections at Latex tank switch bank.
6. Washing Latex tanks (in particular while draining the wash H₂O).
7. Collecting a total solids sample.
8. Wherever Latex is discharged to atmosphere by opening a valve or breaking a flange connection.
9. Dumping Latex tank neals.

D. UTILITY FITTER

1. Opening an a/c dump valve.
2. Opening an a/c/ manhead.
3. Starting the air out procedure prior to entry of laborer to clean.
4. Breaking any line which normally handles VCl liquid or vapor regardless of whether or not it was purged.
5. Blanking No. 57 & 61 compressors.
6. Installing sunction ring into reactor.
7. Washing a/c's.

E. UTILITY OPERATOR

1. Switching No. 52 & 61 compressors.
2. Changing Dollenger manual filters in dryer control room.
3. Switching dryer feed lines at dryer switch bank.
4. As felt necessary by yourself or foreman.

F. BOARD OPERATOR

1. Changing vent station filters
2. As felt necessary by yourself or foreman.

G. LABORER

1. While cleaning on pad.
2. While dumping reactor scrap.
3. As felt necessary by yourself or foreman.
4. Cleaning out a "set-up" reactor or a reactor with large amounts of scrap.

H. SAFETY MONITOR

1. As felt necessary by yourself or foreman.

I. OPERATIONS DAY MECHANIC

1. Dismantling Cuno filter to remove and clean filter media.
2. Repacking and cleaning homogenizers.
3. Dismantling No. 3 dryer feed pump and cleaning.
4. Tightening VCl pump packings (such as premix pumps under C-45).
5. Dismantling the Dorr Oliver filter for repairs.
6. As felt necessary by yourself or foreman.

J. WEIGHMASTERS

1. Cleaning on autoclave pad.
2. As felt necessary by yourself or foreman.

K. MAINTENANCE PERSONNEL

1. As directed by unit foreman.

As a temporary measure several portable breathing tanks have been placed throughout the trouble spot areas.

1. At the 125# autoclave level.
2. At the 200# autoclave level.
3. Between the dryer and Latex tanks switch banks.
4. At the dryer control room desk.
5. Inside the compressor room near the homogenizers.

Twelve masks are available for use— simply plug them in and breathe. Extra 50-foot long high pressure hoses are located in the 2nd floor control room if needed. When using these masks be sure to watch the supply pressure carefully. A full tank of compressed air will last about 8 hours so don't be afraid to use these systems. Only Blue Air cylinders can be used for breathing air supply. Clean all face masks with isopropanol immediately after use and place back into plastic bag. Additional plastic bags for masks are in Jack Moss's office.

We hope that we can eliminate these greater than 50 ppm potential exposure as in a timely manner. Our unit has been given about \$400,000 to correct our problems. Our first job will be to install a permanent fresh air breathing header with about 20 outlets and 2 masks per outlet. Attached is a sheet listing the outlets I have in mind. Please feel free to add more if necessary.

I am sorry for all the notes, but I had a lot to say.

db

D. A. Ellwood
Unit Safety Coordinator

Attachment

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FRESH AIR SUPPLIED
BREATHING MASK CABINET
LOCATIONS

(2 Masks plus 2-50 foot hoses per Loc.)

1. South between C-46 & 47 reactors.
2. South between C-48 & 49 reactors.
3. South between C-34 & 36 reactors.
4. North between C-33 & 35 reactors.
5. North of C-31 by handrail east of west 2nd floor control entrance to Bldg. 193.
6. South between C-38 & 40 reactors.
7. South between C-42 & 44 reactors.
8. North between C-37 & 39 reactors.
9. North between C-41 & 43 reactors.
10. Pad level under & between C-47 & C-48 reactors.
11. Pad level north of C-33 reactors.
12. Pad level north under C-37 & 39 reactors.
13. Pad level north under C-41 & 43 reactors.
14. Pad level south of 2954 H₂O tank.
15. Pad level between the Latex tanks and dryer switchbanks.
16. Inside compressor room around No. 1 dryer filters.
17. Inside compressor room by No. 61 compressor & homos.
18. Mezzanine level by No. 25 reactor filters.
19. Pad level north of C-48 reactor.
20. Pad level between C-40 & 42.

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Job Identification Symbol	JOB TASK PER JOB TITLE	Job Title
	<u>CHARGING OPERATOR (CO)</u>	
CO-1	Dumping Catalyst into Catalyst Pot	Charging Operator
-2	Cleaning the VCM Filters	
-3	Cleaning the Homogenizer Suction Filters	
-4	Venting Down the Charging Line	
-5	Cleaning the Sarco Homogenizer Suction Filters	
-6	Decanting 2805 VCM Tank	
-7	Whenever VCM is Discharged to Atmosphere	
	<u>DRYER OPERATOR (DO)</u>	
DO-1	Changing Dollinger Manual Filters	Dryer Operator
-2	Switching Latex Tanks at Dryer Switch Bank	
-3	Getting Latex Sample to Run Total Solids	
-4	Blown Gasket, #1 or #2 MG Pump	
-5	Blowing #57 Compressor Tracifier Trap	
-6	Whenever Latex is Discharged to Atmosphere	
	<u>TRANSFER OPERATOR (TO)</u>	
TO-1	Changing Dollinger Manual Filters	Transfer Operator
-2	Backwashing Dorr Oliver or Cuno Filters	
-3	Transferring 2940 Tank Foam Trap	
-4	Switching Hose Connections at Latex Switch Bank	
-5	Dumping Broken Pots	
-6	Washing Latex Tanks (Draining Wash Water)	
-7	Collecting a Total Solids Sample	
-8	Whenever Latex is Discharged to Atmosphere	
	<u>UTILITY FITTER (UF)</u>	
UF-1	Opening Reactor Dump Valves	Utility Fitter
-2	Opening Reactor Manheads	
-3	Starting Air-Out Procedure Prior to Entry	
-4	Blanking #57 & #61 Compressors	
-5	Installing Suction Ring into Reactor	
-6	Breaking Any Line which Handles VCM or Latex	
-7	Washing Autoclaves	
-8	Drilling Condenser Tubes	
-9	Changing Dryer Sprays	
	<u>UTILITY OPERATOR (UO)</u>	
UO-1	Switching #57 and #61 Compressors	Utility Operator
-2	Changing Dryer Filters	
-3	Switching Dryer Latex Feed Lines	
-4	Whenever Latex or VCM is Released to Air	
	<u>BOARD OPERATOR (BO)</u>	
BO-1	Changing Vent Station Filters	Board Operator
-2	Whenever VCM is Released to Air	
	<u>LABORER (L)</u>	
L-1	Cleaning Reactors	Laborer
-2	Dumping Reactor Scrap	
-3	While Cleaning On Pad	
	<u>SAFETY MONITOR (SM)</u>	
SM-1	Bucketing Out Scrap from Reactor After Cleaning	Safety Monitor

JLWillis/ra

June 17, 1974

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EUGENE DIETZEN CO
MADE IN U. S. A.

NO 340-10 DIETZEN GRAPH PAPER
10 X 10 PER INCH

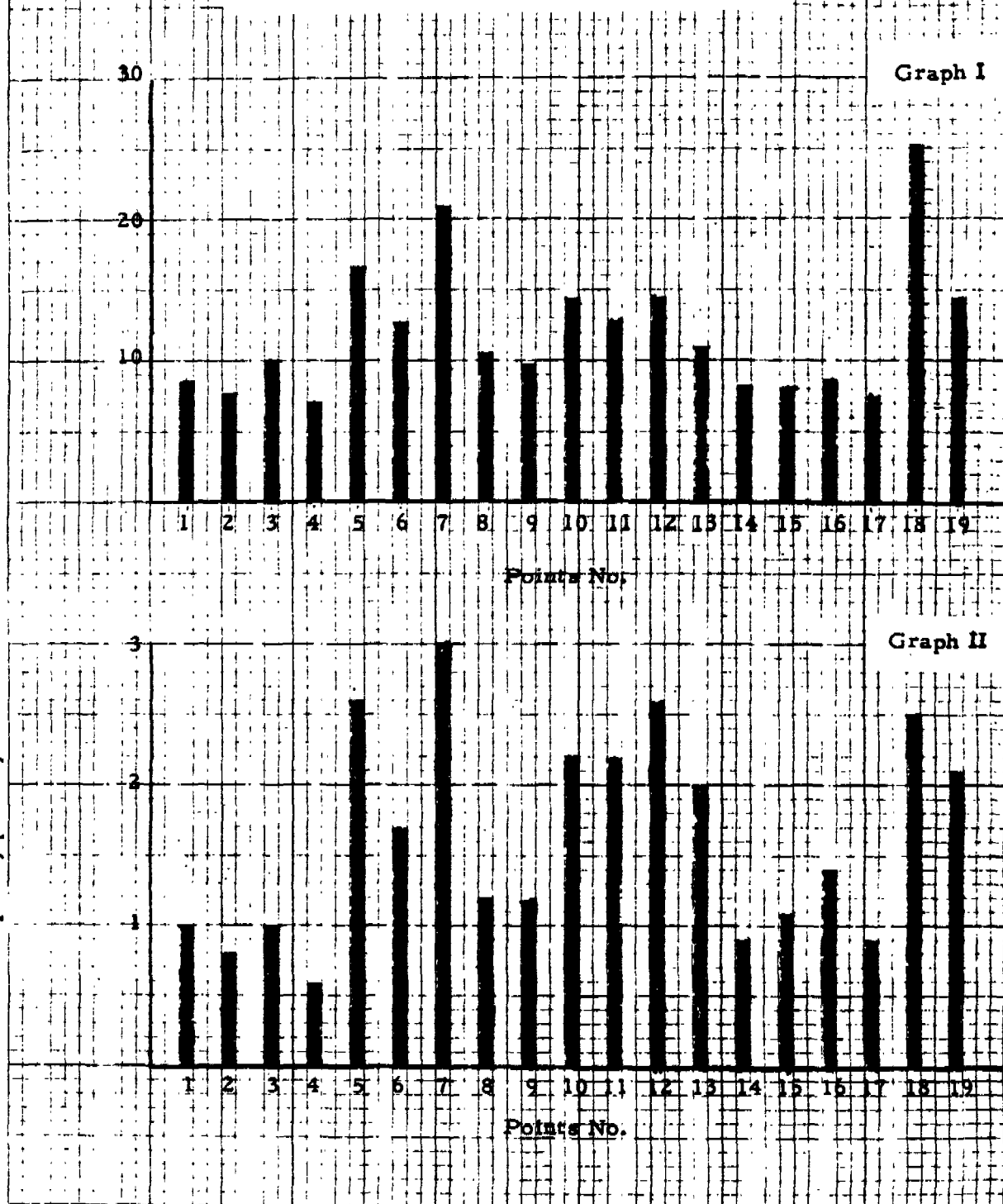
Above 50 ppm
Frequency per day

P. P. M.

CHROMATOGRAPH AVERAGES (5/10/74 - 6/20/74)

Graph I - PPM Average

Graph II - Above 50 ppm Frequency
per day



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AVERAGE VCM CONCENTRATION (PPM) PER WORKPLACE AREA¹ AND JOB TITLE
FIXED MULTIPLE SAMPLING POINT VFA-FLAME IONIZATION DETECTOR

08112

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VCM MONITORING - WORKPLACE ENVIRONMENTS
DISPERSION VINYL RESIN UNIT - BLDG, 190
AREA (ENVIRONMENTAL) SAMPLES¹.

DATE	LOCATION	SAMPLE DURATION, MINUTES	CONCENTRATION, PP.
6-11-74	Control Room	20	11
6-11-74	Control Room	20	2
6-11-74	Control Room	20	4
6-11-74	Control Room	20	12
6-12-74	Control Room	23	3
6-13-74	Control Room	22	6
6-18-74	Control Room	20	9

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1. Charcoal tube method.

VCM MONITORING - WORKPLACE ENVIRONMENTS
DISPERSION VINYL RESIN UNIT-BLDG. 190

UTILITY FITTER

DATE	EMPLOYEE	NUMBER	JOB TASK PERFORMED	CONCENTRATION - PPM
3-11-74	M.C. Jones	00677	(9.)	212
3-11-74	M.C. Jones	00677	(8.)	84
3-13-74	R.J. Harless, Jr.	00725	(1.) (7.)	48
3-21-74	O.T. White	01311	(1.) (2.) (7)	25
3-21-74	O.T. White	01311	(1.) (2.) (7)	13
3-22-74	O.T. White	01311	(1.) (2.) (7.)	186
3-22-74	O.T. White	01311	(1.) (2.) (7.)	313
3-28-74	O.R. Shultz	01520	(7.)	34
3-29-74	O.R. Shultz	01520	(7.)	2
3-29-74	E.D. Gillenwater	00742	None of (1.) through (9.)	12
3-29-74	E.D. Gillenwater	00742	None of (1.) through (9.)	10
4-1-74	P.A. Walker	00357	(1.) (2.) (7.)	111
4-1-74	P.A. Walker	00357	(1.) (2.) (7.)	108
4-1-74	G.E. Pritt	00945	(1.) (2.) (7.)	70
4-1-74	G.E. Pritt	00945	(1.) (2.) (7.)	78
4-3-74	P.A. Walker	00357	(1.) (3.) (7.)	29
4-4-74	P.A. Walker	00357	None of (1.) through (9.)	15
4-4-74	P.A. Walker	00357	None of (1.) through (9.)	14
4-5-74	E.D. Gillenwater	00742	None of (1.) through (9.)	3
4-5-74	E.D. Gillenwater	00742	None of (1.) through (9.)	1
4-8-74	M.C. Jones	00677	None of (1.) through (9.)	10
4-8-74	M.C. Jones	00677	(1.) (3.) (9)	87
4-10-74	E.D. Gillenwater	00742	None of (1.) through (9.)	10
4-10-74	M.C. Jones	00677	None of (1.) through (9.)	8
4-16-74	E.D. Gillenwater	00742	None of (1.) through (9.)	4
4-19-74	B.F. Arbogast	00674	None of (1.) through (9.)	3
4-19-74	G.E. Pritt	00945	None of (1.) through (9.)	29
4-22-74	B.F. Arbogast	00674	None of (1.) through (9.)	1
4-23-74	W.H. Faulkner	00564	(1.) (7.)	3
4-23-74	W.H. Faulkner	00564	(1.) (2.) (3.) (7.)	220
4-24-74	E.D. Gillenwater	00742	None of (1.) through (9.)	1
4-29-74	P.A. Walker	00357	None of (1.) through (9.)	12
5-1-74	L.E. Atkins	10576	(2.) (5.)	73
5-29-74	P.A. Walker	00357	(2.) (5.)	73
5-29-74	P.A. Walker	00357	(1.)	44
5-29-74	P.A. Walker	00357	(7.)	22

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VCM MONITORING - WORKPLACE ENVIRONMENTS
DISPERSION VINYL RESIN UNIT - BLDG. 190

UTILITY FITTER

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CHARCOAL TUBE METHOD

234-20-2847

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PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

236-74-2919

EMPLOYEE		L.E. Atkins		NUMBER		10576		JOB TITLE		Utility Fitter		DEPT.		CB500	
DATE		JOB TASK PERFORMED.				CONCENTRATION, PPM				REMARKS		ACCUM. AVG., PPM			
5-1-74		(2.) (5.)				73									
5-30-74		(2.) (5.)				803						438			
5-30-74		(1.)				186						354			
5-30-74		(7.)				611						418			
						</									

PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

232-24-5164

EMPLOYEE		W. H. Faulkner		NUMBER		00564		JOB TITLE		utility Fitter		DEPT.		08500	
DATE		JOB TASK PERFORMED				CONCENTRATION, PPM				REMARKS				ACCUM. AVG., PPM	
4-23-74		(1.), (7.)				3									
4-23-74		(1.), (2.), (3.), (7.)				220								112	

PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD 236-2

236-24-8351

EMPLOYEE		E.D. Gillenwater		NUMBER		00742		JOB TITLE		Utility Fitter		DEPT.		08500	
DATE		JOB TASK PERFORMED		CONCENTRATION, PPM		REMARKS		ACCUM. AVG., PPM							
3-29-74				12											
3-29-74				10										11	
4-5-74				3										8	
4-5-74				<1										6	
4-10-74				10										7	
4-16-74				4										7	
4-24-74				<1										6	

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CHARCOAL TUBE METHOD

235-28-2264

EMPLOYEE	R. J. Horless, Jr.	NUMBER	00725	JOB TITLE	Utility Fitter	DEPT.	08500
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DATE	JOB TASK PERFORMED	CONCENTRATION, PPM	REMARKS	ACCUM. AVG., PPM
3-13-74	(1.), (7.)	48		
6-3-74	(4.)	56		52

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PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

235-03-3522

EMPLOYEE		M.C. Jones		NUMBER		00677		JOB TITLE		Utility Fitter		DEPT.		CB500	
DATE		JOB TASK PERFORMED		CONCENTRATION, PPM		REMARKS		ACCUM. AVG., PPM							
3-11-74		(9.1)		212											
3-11-74		(8)		84										148	
4-8-74				10										102	
4-8-74		(1.5), (3.2), (7.1)		87										98	
4-10-74				8										42	

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PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

226-09-0490

EMPLOYEE	F. Pizzino	NUMBER	00641	JOB TITLE	Utility Fitter	DEPT.	08500	
DATE	JOB TASK PERFORMED			CONCENTRATION, PPM		REMARKS		ACCUM. AVG., PPM
6-13-74	(1.), (2.), (5.)			97				97
								</

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PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

236-18-1452

EMPLOYEE		P. A. Walker		NUMBER		00357		JOB TITLE		Utility Fitter		DEPT.		08500	
DATE		JOB TASK PERFORMED		CONCENTRATION, PPM		REMARKS		ACCUM.		AVG., PPM					
4-1-74		(1.), (2.), (7.)		111											
4-1-74		(1.), (2.), (7.)		108										110	
4-2-74		(1.), (3.), (7.)		29										83	
4-4-74				15										66	
4-4-74				14										55	
4-29-74				12										48	
5-29-74		(2.), (5.)		73										52	
5-29-74		(1.)		44										51	
5-29-74		(7.)		22										48	

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PERSONAL MONITORING RECORD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

232-32-4130

EMPLOYEE		O.T. White		NUMBER		01311		JOB TITLE		Utility Fitter		DEPT.		OB500	
DATE		JOB TASK PERFORMED				CONCENTRATION, PPM				REMARKS		ACCUM. AVG., PPM			
3-21-74		(1), (2), (7.)				25				See dryer operator for additional data					
3-21-74		(1), (2), (7.)				13						19			
3-22-74		(1), (2), (7.)				186						75			
3-22-74		(1), (2), (7.)				313						134			

WEIGHMASTER

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CHARCOAL TUBE METHOD 235-18-6913

22301

DEPT. ~~08500~~

5-14-74

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034780

233-24-8424

2230

DEPT, ~~08500~~

UCC
034781

CHARCOAL TUBE METHOD

240-18-6160

22301

DEPT. ~~08500~~

ACCUM.	
AVE. PPM	

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CHARCOAL TUBE METHOD

2230/

EMPLOYEE	R.L. Thaxton	NUMBER	10175	JOB TITLE	Weighmaster	DEPT.	08500
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DATE	JOB TASK PERFORMED	CONCENTRATION, PPM	REMARKS	ACCUM. AVG., PPM
3-11-74		9		
3-12-74		17		13
3-12-74		35		20
3-14-74		28		22
3-14-74		15		21

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CHARGING OPERATOR

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236-30-3204

UCC
034785

236-16-5452

UCC
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234-20-5573

DEPT. 08500

ACCUM.
AVG., PPM

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VCM MONITORING - WORKPLACE ENVIRONMENTS
DISPERSION VINYL RESIN UNIT - BLDG 190
OPERATIONS MECHANIC

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537-26-2658

537-26-2658

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VCM MONITORING - WORKPLACE ENVIRONMENTS
DISPERSION VINYL RESIN UNIT - BLDG 190
OPERATIONS FOREMAN

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CHARCOAL TUBE METHOD

234-01-5346

EMPLOYEE		K.E. Gray		NUMBER		35050		JOB TITLE		Operations Foreman		DEPT.		08500	
DATE	JOB TASK PERFORMED	CONCENTRATION, PPM		REMARKS		ACCUM. AVG., PPM									
4-5-74		8													
4-5-74		8				8									

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DISPERSION VINYL RESIN UNIT - BLDG 190

TRANSFER OPERATOR

DATE	EMPLOYEE	NUMBER	JOB TASK PERFORMED	CONCENTRATION, PPM
3-19-74	E.C. Duke	00553	(2.)	20
3-19-74	E.C. Duke	00553		62
3-26-74	I.D. Shamblyn	01272		4
3-26-74	I.D. Shamblyn	01272		5
4-17-74	E.C. Duke	00553		17
4-23-74	F.M. Keaton	00531		2
4-23-74	F.M. Keaton	00531		2
4-26-74	F.M. Keaton	00531		2
4-30-74	V.M. Christian	01426		14
6-11-74	E.C. Duke	00553		8

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234-01-5547

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233-16-2350

DATE	JOB TASK PERFORMED	CONCENTRATION	PPM	REMARKS	ACCUM. AVG., PPM
3-19-74		20			
3-19-74	(2.)	62			41
4-17-74		17			33
6-11-74		8			27

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234-30-7716

DATE	JOB TASK PERFORMED	CONCENTRATION, PPM	REMARKS	ACCUM. AVG., PPM
4-23-74		2		
4-23-74		2		2

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233-14-3682

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DRYER OPERATOR

514-9573

234-24-8200

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233-24-9360

DATE

CONCENTRATION, PPM

REMARKS

ACCUM.	
AVG.	PPM

3-22-74

27

3-22-74

22

25

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233-16-6802

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232-32-4130

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CHARCOAL TUBE METHOD

236-30-7726

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DISPERSION RESIN UNIT - BUILDING 190

BOARD OPERATOR

DATE	EMPLOYEE	NUMBER	JOB TASK PERFORMED	CONCENTRATION - PPM
3-15-74	R. L. Vandale	00350		15
3-15-74	R. L. Vandale	00350	(1.)	88
3-25-74	I. D. Shamblin	01272		4
3-25-74	I. D. Shamblin	01272		9
4-9-74	I. D. Shamblin	01272		2
4-9-74	I. D. Shamblin	01272		3
4-24-74	J. L. Willis	01435		5
5-14-74	J. C. Johnson	01457		13
5-16-74	I. D. Shamblin	01272		14
6-29-74	J. C. Johnson	01457		4

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235-01-2786

DATE	JOB	TASK PERFORMED	CONCENTRATION, PPM	REMARKS	ACCUM, AVG, PPM
5-14-74			13		
5-16-74			4		9

UCC
034804

UCC
034804

PERSONAL MONITORING RECORD - YCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

233-14-3682

EMPLOYEE		I.D. Shamblin		NUMBER		01272		JOB TITLE		Beard Operator		DEPT.		08500	
DATE		JOB TASK PERFORMED				CONCENTRATION, PPM				REMARKS		ACCUM. AVG., PPM			
3-25-74						4				See Transfer Operator for additional data.					
3-25-74						9						7			
4-9-74						2						5			
4-9-74						3						5			
5-16-74						14						6			

PERSONAL MONITORING RECCRD - VCM IN WORKPLACE ENVIRONMENTS
CHARCOAL TUBE METHOD

233-10-0287

EMPLOYEE		R.L. Vandale		NUMBER		00350		JOB TITLE		Beard Operator		DEPT.		08500	
DATE		JOB		TASK PERFORMED		CONCENTRATION, PPM		REMARKS		ACCUM.		AVG., PPM			
3-15-74						15									
3-15-74				(1.)		88		No. 1 Homogenizer gasket rupture				52			

236-30-7726

UCC
034807

UTILITY OPERATOR

UCC
034808

CHARCOAL TUBE METHOD.

232-24-9202

EMPLOYEE		E.A. Frasher		NUMBER		01209		JOB TITLE		Utility Operator		DEPT.		08500	
DATE		JOB TASK PERFORMED				CONCENTRATION, PPM		REMARKS		ACCUM AVG., PPM					
3-18-74		Assisting UF-6				71									
3-18-74		Assisting TO-2				45				58					
4-16-74						6				41					
4-16-74						4				32					
6-3-74		(i.)				59				37					

UCC
034809.

408-26-5388

[illegible]

UCC
034810

236-09-5370

UCC
034811

LABORER

514-9573

232-16-6779

UCC
034813

232-24-5454

DATE	JOB TASK PERFORMED	CONCENTRATION, PPM	REMARKS	ACCUM; AVG., PPM
3-21-74		17		
3-21-74		13		15
3-29-74		4		11
3-29-74		6		10
4-8-74	(1.), (2.), (3.)	32		14
4-8-74		4		13
4-10-74	(3.)	17		13
4-10-74		8		13
4-11-74	(3.)	9		12
4-11-74		7		12
4-15-74		7		11
4-15-74		14		12

UCC
 034814

UCC
034814

236-20-2444

UCC
034815

234-16-8167

234-16-8167

234-16-8167

234-16-8167

235-03-4549

500