UNIT I/VINYL CHLORIDE
OC-101

NOTIFICATION OF VINYL CHLORIDE EXPOSURE MONITORING RESULTS.

The OSHA vinyl chloride standard, 29 CFR 1910.1017, requires that any employee that has been monitored for exposures to vinyl chloride and found to have been exposed , without regard to the use of respirators, in excess of the permissible exposure limit, be notified in writing of the results of the exposure measurement and the steps being taken to reduce the exposure. This must be done within 10 working days following the monitoring.

The following employee was exposed in excess of the Permissible Exposure Limit of 1.0 PPM for vinyl chloride:

NAME	DATE MONITORED	8-HOUR TWA (PPM)
	12-18-92	
	12-18-92	

The following controls are being implemented to reduce exposures:

SIGNATURE OF MONITORED EMPLOYEE: _____

DATE OF NOTIFICATION: 5-18-93

PLEASE FORWARD THE COMPLETED FORM TO MELISSA BLUE, INDUSTRIAL HYGIENE SERVICES, B-101 FOR INCLUSION IN THE 75 YEAR FILES.

REDACTED

R&S154111

TABLE 1
8-HOUR TWA PERSONAL EXPOSURES TO VINYL CHLORIDE
UNIT 1/VINYL CHLORIDE TANK CAR OFF-LOADING, OC-901, 1992

JOB CLASS/ JOB CODE	MASTER NUMBER	SAMPLE DATE	SAMPLE TIME (MIN)	VINYL CHLORIDE (PPM)[1,2] TUBE	BADGE
Process Technician/ Loading:		02-28-92	480	ND (<0.26)	0.28
		02-28-92	480	1.7	>1.3[3]
		05-21-92	480	ND (<0.13)	----
		05-21-92	480	ND (<0.13)	ND (<0.03)
		09-10-92	480	1.1	>0.64[3]
		09-10-92	480	0.20	ND (<0.23)
		09-10-92	480	—	ND (<0.06)
		12-18-92	480	ND (<0.44)	ND (<0.40)
		12-18-92	480	0.96	>0.51[3]
			Ave. =	0.62	
OSHA PEL (8-Hour TWA):				1	

1 ND = non-detectable; detection limit is in parentheses..
2 Respiratory protection was used during tank car hook-up and tank car sampling.. Based on data in a previous report (IHS File #OC-3652), respirator use during the analysis of samples was discontinued after second quarter, 1992.
3 The backup section was greater than 50% of the front section; therefore, a significant amount of vinyl chloride may have been lost to the atmosphere.

REDACTED

TABLE 2
PROCESS TECHNICIAN SHORT-TERM PERSONAL EXPOSURES TO VINYL CHLORIDE
UNIT 1/VINYL CHLORIDE TANK CAR OFF-LOADING, OC-901, 1992

JOB TASK	MASTER NUMBER	SAMPLE DATE	SAMPLE TIME (MIN)	VINYL CHLORIDE (PPM)[1,2] TUBE	BADGE
T/C Hook-up		02-28-92	20	ND (<1.5)	ND (<1.4)
T/C Sampling		02-28-92	15	ND (<2.2)	ND (<1.9)
T/C Sample Analysis		05-21-92	5	ND (<2.0)	ND (<2.9)
		09-10-92	5	42	>33
		12-18-92	7	ND (<12)	----
T/C Disconnect		05-21-92	22	ND (<0.67)	ND (<0.65)
		09-10-92	25	ND (<1.4)	----
		12-18-92	15	ND (<4.3)	ND (<3.8)
OSHA PEL (STEL):				5	

[1] ND = non-detectable; detection limit is in parentheses.
[2] Respiratory protection was used during tank car hook-up, sampling and sample analysis. Based on data in a previous report (IHS File #OC-3652), respirator use during the analysis of samples was discontinued after second quarter, 1992.

TABLE 3
AREA MONITORING IN THE TANK CAR OFF-LOADING LABORATORY
UNIT 1/VINYL CHLORIDE TANK CAR OFF-LOADING, OC-901, 1992

AREA	SAMPLE DATE	SAMPLE TIME (MIN)	VINYL CHLORIDE (PPM)[1]
Near GC	09-10-92	480	ND (<0.06)
	12-18-92	480	ND (<0.53)
OSHA PEL (8-Hour TWA):			1

[1] ND = non-detectable; detection limit is in parentheses.

REDACTED

R&S154113

~~29890~~

~~40000~~

~~10006 - 10157~~

~~103015 - 103066~~

~~143653 - 143654~~

154114 - 154116

DOW

Dow U.S.A.

The Dow Chemical Company
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Freeport, Texas 77541-3257

Building OC-101, Phone 5034

May 3, 1993

Melissa Blue, B-101
Industrial Hygiene Services

xc: Chris Higganbotham, OC-101
Jerry Saddler, OC-101
Larry Samson, OC-101
Sam Smolik, OC-101

IH CHEMICAL EXPOSURE REPORT #OC-3951 RECOMMENDATIONS FOLLOW-UP

1. Personal exposure sampling at the off-loading facility has been done for the first quarter 1993 and will be repeated quarterly until eight-hour time-weighted average exposures to vinyl chloride are below the 0.5 ppm action level.

2. The use of respiratory protective equipment will continue during tank car hook-up and sampling until industrial hygiene sampling results indicate otherwise.

3. Individual affected employees have been notified with appropriate documentation using IHS exposure notification form. All unit personnel will be informed during May's safety and communication meeting.

4. Feasible engineering controls will continue to be explored to further reduce vinyl chloride exposures at the off-loading facility.

Regards,

Willie

Willie Myles
Unit IH Coordinator

R&S154114

IMPLEMENTATION PLAN FOR INDUSTRIAL HYGIENE RECOMMENDATIONS

AREA: UNIT I/VINYL CHLORIDE, OC-101

IHS FILE #: ~~OG-3866~~ OC-3951

REPORT TITLE: SUMMARY OF 1992 QUARTERLY MONITORING DURING VINYL CHLORIDE TANK CAR OFF-LOADING ACTIVITIES AT UNIT 1/VINYL CHLORIDE, TEXAS OPERATIONS, OC-901

STATUS*	RECOMMENDATIONS FROM REPORT
C	Until additional controls are implemented and exposures are decreased below the OSHA Action Level of 0.5 ppm, quarterly 8-hour TWA monitoring must continue to be conducted. Short-term exposures during tank car hook-up, sampling and sample analysis should also continue to be evaluated.
C	At a minimum, full-face air-purifying respirators with cartridges approved for vinyl chloride should continue to be used during tank car hook-up and sampling.
C	Employees with exposures that exceeded the acceptable limits were notified individually. All personnel of Unit 1/Vinyl Chloride should be informed of the results of this survey.
L	Engineering controls should continue to be investigated to reduce exposure to levels below the OSHA Action Level.

* C: COMPLETED, or

L: LONG TERM IMPLEMENTATION (PROVIDE FURTHER INFORMATION ON STATUS OF THE RECOMMENDATION)

PLANT REPRESENTATIVE [REDACTED] DATE 5-4-93

COMPLETE FORM AND RETURN TO MELISSA BLUE, B-101

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R&S154115

UNIT INDUSTRIAL HYGIENE MEETING MINUTES
MAY/4/93

Attendants:

Meeting Purpose: **To discuss and brainstorm ways of reducing VCM exposures at the off-loading facility.**

started the meeting off by reviewing past hygiene sampling results to bring everyone update on the situation at the off-loading area. This was followed by a group discussion. The following action items precipitated from the meeting.

Action Items

1. Verify all loading techs purge hoses for 6 minutes. Chris
2. Check into greasing swivel joints on periodic basis. - Chris
3. Evaluate vacuum system to clear loading hoses. - Chris
4. Decrease feedback time for IH exposure monitoring -- Goal: 3 day turnaround. Willie and Melissa
5. Investigate each exposure over action limit. Gene, Willie, Chris, Sam
6. Train/inform loading techs to note any possible event that might have contributed to exposure during sampling period. Willie
7. Monitor loading techs monthly to get quick update. — Willie & Melissa
8. Check/observe tank car sample station and sampling procedure to ensure adequate clearing. Chris
9. Determine why lower detection limit is changing. (1992 data ranged from 0.13 to 0.44) - Melissa and Willie
10. Determine while tank car hoses are not de-pressured to STP vs. 15 PSI before breaking into. Chris

NEXT UPDATE MEETING IS SCHEDULED FOR EARLY JULY 1993. MEETING TIME AND PLACE TO FOLLOW.

May 13, 1993

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