

Methods of Compliance
to the Permissible Exposure Limits
OSHA Regulation 1910.93 q - Standard for Exposure to VCI

BFGOODRICH CHEMICAL DIVISION
Avon Lake Technical Center

OSHA regulation 1910.93q requires that employee exposures to vinyl chloride shall be controlled to 1 ppm or less of VCI averaged over any 8 hour period and that no employee shall be exposed to vinyl chloride at concentrations greater than 5 ppm averaged over any period not exceeding 15 minutes. If exposures are above this, feasible engineering and work practice controls shall immediately be used to reduce exposures to at or below the permissible exposure limits.

At the Technical Center we have on going programs in both the engineering and process departments. Written plans for these programs are attached and will be furnished upon request for examination and copying to authorized representatives of the Assistant Secretary of Labor and the Director of OSHA. These plans will be updated at least every six months.

These plans, upon request, will also be shown to employees who are exposed in excess of the permissible exposure limits to show them the steps being taken to reduce their exposure to within the permissible exposure limits.

Lee Bennett

VCM OSHA Administrator

LAB:jj

AVON LAKE TECHNICAL CENTER VCM EMISSIONS CONTROL REPORT
STATUS REPORT

SPECIAL OBJECTIVE	PROJECT	COMP. DATE	PERSONNEL ASSIGNED	COST ENG	TOTAL	REMARKS
<u>A. Engineering Projects</u>						
Divert VCM vapors now vented to room	Spot Ventilation	Complete	Gary Wilson Jim Ego	\$50,000	\$150,000	Extended local exhaust under 1100 gal. polys. Made canvas hoods for containing vapors from leaky valves & gaskets. Installed bench hood for matr. work up. This job is essentially complete.
Disperse exhausted vapors higher in atmosphere	Bldg. 414 exhaust stack	Hold	Gary Wilson Jim Ego	22,000	\$120,000	Stack has been approved for Hydrin. The Geon Vacjets will be tied into this stack.
Insure adequate bldg. ventilation	Building ventilation a) B/414 E Emergency & Normal b) B/414 W " c) B/414 S " d) B/417 "	3/77	Gary Wilson Jim Ego	\$75,000	\$600,000	Design is on HOLD. Working on improving performance of existing heating system at a cost of \$23,000.
Replace high emission source pilot plant equipment.	Replace present 15 gal. polys with 55 & 110 liter polys.	1977	Gary Wilson Steve Wiersma	\$150,000	\$600,000	Installation of two new 55 liter polys with blow down tanks and stripping and drying system. 10% complete. Reactors received. Process engineers are seeking a better definition of the process.
Eliminate use of buckets of solvents for poly cleaning	Design & install a safe solvent cleaning system in B/414	1/77	Smith	\$ 2,400	\$ 24,000	20% complete. ON HOLD.
Reduce VCI in air	Leak control	Cont.	Process & Maint.			Continuing
Prepare SOP's for PVC processes in B/414		1/78	G. Wilson			A number have been written and are ready for approval.
Bottle Polymerizer for Bldg. 414	Prevent excursions in B/422	4/77	G. Wilson			Ready to proceed.
Reduce or eliminate environmental emissions	Build VCM Recovery System for West Process.	5/78	R. Cahill R. Houston	\$12,000	\$192,000	EA approved 2/77. Mat'l being ordered. Progress is on schedule.

cc: R. M. Kreager, D. J. Barnicki, F. Zieber, P. DeChant, J. Alten, G. Wilson, F. Krause, C. Orben, V. Carson, D. Popovich, N. Wearsch, L. Bennett

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AVON LAKE TECHNICAL CENTER VCM EMISSIONS CONTROL REPORT
STATUS REPORT

10/18/77

SPECIAL OBJECTIVE	PROJECT	COMP. DATE	PERSONNEL ASSIGNED	ENG	COST	TOTAL	REMARKS
<u>A. Engineering Projects</u>							
Improve ventilation in dispersion resin testing lab.	Ventilation in plastisol lab	12/77	G. Wilson				GPO approved. Waiting for final design and construction.
Insure adequate bldgs. ventilation.	Building ventilation a) 8/414 E Emergency & Normal b) 8/414 W " c) 8/414 S " d) 8/417 "	3/77	G. Wilson J. Ego	\$75,000	\$600,000		Design is on HOLD. Working on improving performance of existing heating system at a cost of \$23,000.
Replace high emission source pilot plant equipment.	Replace present 15 gal. polys with 55 & 110 liter polys.	3/78	G. Wilson S. Wiersma	\$150,000	\$600,000		Progress on installation of 55 liter polys is proceeding at slow but steady pace. Project presently 30% completed. Delays in obtaining quotes on blowdown tank/stripper & other long delivery items.
Eliminate use of buckets of solvents for poly cleaning	Design & install a safe solvent cleaning system in 8/414.	4/78	R. Houston E. Ekuibe	\$ 2,400	\$ 24,000		20% complete.
Reduce VCI in air	Leak control	Cont.	Process & Maint.				Continuing
Prepare SOP's for PVC processes in 8/414		1/78	G. Wilson				A number have been written and are ready for approval.
Reduce or eliminate environmental emissions	Build VCM Recovery System for West Process.	5/78	R. Houston	\$12,000	\$192,000		EA approved 2/77. Mat'l being ordered. Progress is on schedule.

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