Monsanto

COMPANY (PCB Manuf
CONFIDENTIAL

FROM (NAME & LOCATION): W. C. Engman, W. G. Krummrich

DATE: April 24, 1972

SUBJECT: PROGRAM TO REDUCE PCB LOSSES FROM MANUFACTURING FACILITIES

REFERENCE:

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Attached is the program for reducing and/or eliminating sources of PCB sewer losses from manufacturing facilities. Completion of all items, except for HCl off-gas scrubbing facilities, will reduce losses at the Aroclor Department to less than 0.1 #/day by mid June. External losses (Incinerator and Rip Track) will range from 0.01 to 0.35 #/day. Cost is roughly $15,000 expense and about 3 man-months technical effort is required. The above assumes PCB losses at the C/S Department are negligible. Sewer samples are being taken to confirm.

Installation of an HCl off-gas scrubber will allow operation of Aroclor Dept. when C/S Dept. is shut down. Additional losses assuming drowning 5% of the time will be 0.1 to 0.15 #/day on the average.

Monitoring will consist of composite samples taken twice per week at:

1. Treatment Plant Influent
2. Treatment Plant Effluent
3. Aroclor Dept. Parshall Flume (project to be completed by 5/15/72)
4. Incinerator sewer
5. Rip track washes (10 per month)

Cost of the sampling program will be about $2,500 per month.

W. C. Engman
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Source of Loss	Current Loss	Plan for Reduction	Resulting Loss	Cost	EDC	Technical Manpower
1. HCl Off-gas	20-30 #/day with all gas drowned. Unknown when all going to C/S Dept.	Eliminate drowning	Unknown at C/S Dept.	~$ 5,000 Expense	4/28/72	1/2 man-month
		Develop HCl scrubber in Dept. 246	2-3 #/day with all gas drowned	~$50,000 Capital	Research 5/1/72 Design 6/1/72 Construct 10/1/72	5 man-months
2. Blow tank off-gas	0.5 to 1.5 #/day	Eliminate blowing - replace with extra lime treatment	0 #/day	~$ 3,000 Expense	Process Amend. 5/15/72 Testing Complete 6/15/72	1/2 man-month
3. Aroclor Dept. Catch basins	0.1 to 0.3 #/day	Minor projects to reduce water flow.	0.02 to 0.05 #/day	~$ 5,000 Expense	6/1/72	1 man-month
4. Incinerator Scrubber	0.01 to 0.05 #/day	None	0.01 to 0.05 #/day			
5. Incinerator Catch basin	None to 0.3 #/day	None at present	None to 0.3 #/day			
	Average 0.1 #/day	May consider carbon treatment later.				
6. Rip Track Washes	0.5 #/wash 10 washes/ month.	Develop emulsion breaker.	0.01 #/wash	Unknown	5/15/72	1 man-month