Monsanto

Circulate in envelope to ~~Bratsch~~ ~~Jackson~~ Dalton

FROM (NAME & LOCATION) Sauget, Illinois

DATE : March 6, 1970

SUBJECT : Status of Aroclor Pollution Control
3/1/70 - W. G. Krummrich Plant

REFERENCE :

TO : W. B. Papageorge

CC: T. W. Dalton
P. B. Hodges - G.O.
W. A. Kuhn - G.O.
F. McDonald - Newport
H. L. Williams - Anniston

In this memo I will summarize the current level of Aroclor losses to the river, known losses to the sewer, and the efforts being made to reduce these losses.

Current Level

By sampling the WGK waste treatment plant influent and effluent, the Aroclor losses to the river are calculated to be 218 pounds per day. More data will be collected to further establish this level and to determine if any Aroclor is removed at the treatment plant. Our targeted loss is 10 pounds per day by 1/1/71.

Known Losses To Sewer In February

Inorganic Group (Dept. 251)	50 lbs.(est.)
Agriculture Group (Dept. 239)	5 lbs.(est.)
Organic Groups(other than Dept.246)	None
Laboratory	Less than 1 lb.(est.)
Rip Track(Aroclor car washing)	None(washings hauled to dump)
Dept.246(Aroclor production)	Approx. 100 lbs./day(by sampling)

The 100 lbs./day from the Aroclor department is entrainment from the crude Aroclor blow tanks which goes to a drowning jet. There are other losses from Dept. 246 but they are difficult to measure by sampling. They are small compared to the entrainment loss.

To date all sample analysis has been for Aroclor 1242 only.

Current Work

1. Blow Tank Piping Alterations
   Proj No. 1493
   #5400 expense, -0- capital
   EDC 5/1/70

   The purpose of this project is to guard against any future malfunction of the continuous blow tank level controller. Any blow tank overflow goes to the sewer. The project piping will take any overflow to the crude intermediate storage tank. Temporarily the controller is on a two-week PM inspection.

DSW 329969

STLCOPCB4076612

2. Absorber Rupture Disc Alterations
Proj. No. 1512
#1500 expense, $4500 capital
EDC 7/1/70

If an absorber rupture disc bursts, Aroclor can be discharged to the sewer. The discharge line will be altered to discharge into the vessel which feeds the absorber. This will be done on all four porocel absorbers.

3. Removal of Aroclor from Trench Sewers No. 1715 $14,000
EDC 9/1/70
Formal estimate not complete. Ballpark estimate of $12,000-15,000.

The trench sewers in the manufacturing areas contain water and a small amount of Aroclor. The water is process related water (condenser, jets, steam condensate, etc.), rain water, and wash water. The Aroclor is from leaks from pumps and filters, but could conceivably be a larger amount from a spill or equipment failure.

This project will reroute all process related water except that from steam jets directly to the main sewer. A sump and pump will be installed so that any Aroclor losses will be trapped in the sump. Rain water and wash water will overflow a Weir and go to the main sewer. It will contain dissolved Aroclor only. Periodically the trapped Aroclor will be pumped into drums and taken to the toxic dump or destroyed.

4. Removal of Aroclor from Gases to Drowning Jet
EDC - Last Quarter 1970
Evaluation stage, no cost estimate

The largest Aroclor loss is entrained product in the gases from the blow tanks. The gases are air and a small amount of HCl at about 100-150°C. The most likely solution to this problem is to install a condenser and demister in this gas stream ahead of the drowning jet. This would be similar to the installation in the HCl stream going to the HCl using departments. The drowning jet water would then contain only very small amounts of Aroclor. This water would not go through the planned sump mentioned in work item #3 above.

The possibility of reducing the volume of air used in the blow tanks will be investigated.

5. Removal of Dissolved Aroclors
EDC - 1971(if justified)

Dissolved Aroclor will be in the water from the sump(item #3) and from the drowning jet mentioned in item #4. These two streams can be combined and treated for complete Aroclor removal. I understand that the Anniston plant is investigating the means to do this. One possibility is carbon treatment.

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6. WGK Analysis of Sewer Samples
The estimated cost of the analytical equipment needed to make analyses at WGK is $8000. Justification is to be determined.

R. M. McCutchan

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