Monsanto

COMPANY CONFIDENTIAL

FROM (NAME & LOCATION): W. C. Engman - WGK

DATE: October 5, 1970

SUBJECT: STATUS OF PROGRAM FOR AROCLOR POLLUTION CONTROL

REFERENCE:

TO : Mr. J. R. Savage - G.O.

cc Messrs.
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This is the October 1, 1970 status of the PCB pollution control program.

I. PCB Levels in Sewer:

A. Current losses to the river from the treatment plant range from 12 to 742 PPB with an average loss of 311 PPB for 11 samples. This is an equivalent average loss of 71.5 pounds/day.

II. Projects to Reduce Sewered PCB's from Aroclor Department

A. Blow tank demister (Est. 2031) project construction is underway with completion scheduled for October. A Process Amendment was approved.

B. Project for about $30,000 to provide paving, curbs, trenches and catch basin in tank car and tank truck loading areas will be added to the incineration project to speed approval.

III. Program to Eliminate Sewered PCB's from Using Departments

A. Summary report covering losses from using department will be issued by October 12.

B. Status of work to eliminate losses from using departments follows:

Departments 243 and 244

Plans are to replace the Therminol FR-1 with Therminol 55. Lab work has been conducted to verify that there is no reaction between Therminol 55 and any process materials. Engineering is underway on system modifications required for use of Therminol 55. Target date for changeover is 12/1/70.

Department 245

The major problem here is air pollution from the supply tank vent. Our target is to scope a solution and prepare an estimate by 11/1. Changeover to a different fluid is undesirable in this department due to the high fire potential.

Department 251

No work has yet been done on the lubrication and hydraulic type systems in this department.

Department 239

Work is in progress to develop project premise. We expect to eliminate two pumps and a cooler in the Therminol lines. (Pending results of thermal stability of Santophen I residue). The project will include a new expansion tank with submerged pump. We also plan to upgrade controls and make furnace operation more reliable. How to sump the area around potential spills is still unresolved. To go to a flammable heat transfer fluid is considered too great a process safety hazard in this area.

Department 255

Plans are to replace FR-2 with Therminol 66 by 11/15/70.

Department 248

No progress has been made to date. A definite plan will be developed by 11/1/70 with the objective of solving any problems by 1/1/71.

Department 258 (DDS)

The unit is still down and most likely will not be started up again. The material on the pad has been removed.

Department 270

A 55 gallon drum has been placed under the vent. Chat soaked with Aroclor around the furnace must still be replaced.

Department 275

A 55 gallon drum must still be placed under the vent line (the vent will have to be shortened to do this). Chat around the furnace still needs to be replaced.

Department 273

Work completed. Drum placed under surge tank vent. Buckets placed to collect material from drip pans under therminal circulating pumps.

Department 222

Unit in start-up. No visible source of loss observed.

C. Estimate 2292 will be revised. This is the project to provide 150,000 gallons of storage for scrap Aroclor. A plant level earnings expense estimate will be prepared to cover the cost of altering the storage tanks. The 4,000 gallon trailer originally used to haul Aroclors to Queeny Plant will be used for scrap Aroclor hauling in the plant.

IV. Removal of Soluble PCB's from Sewer Stream (Reach 10 PPB)

No work. Waiting on process from Anniston Research.

V. PCB Levels in Atmosphere

A. Vapor losses from the Aroclor Department are estimated at 2.3 #/day now and 1.6 #/day after the installation of the blow tank demister.

1. Scrubber Stack (from blow tank drowning jet) - 0.90 #/day.

This is a measured quantity. With installation of the demister and closing the batch blow tanks, air flow should be decreased to about 20% of present flow. Assuming the concentration to be the same, loss would be reduced to ~0.2 #/day.

2. Fume Removal Stack (from drowning area and sampling stations) - 0.03 #/day.

This is an estimated quantity based on most vapors coming from the drumming station and assuming 10,000,000 #/year drummed and 1242 vapor pressure at 80° C. Samples are being taken to verify.

3. Aroclor Transfers Within Department - 1.34 #/day.

   This is an estimated quantity assuming 70 M #/year production and 2.5 transfers/pound at 100° C. Samples will be taken at storage vents to verify.

4. Steam Jets - unknown. Will be measured.

VI. PCB Rework Project (Estimate 2095)

Phase II - Construction sufficiently complete to allow unloading tank cars to the rework still.

Phase III - Design package will be completed by mid-October.

This project will be added to the incineration project for approval. Phase III will be held up until approval is received. This will mean that material will be reworked direct from tank cars until the Phase III storage facilities are installed.

A Process Amendment was approved for this project.

W. C. Engman

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Technical Services Dept.

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