WATER DISCHARGE TO SEWER
AROCLOR DEPARTMENT

| | LOCATION | APPROX. AMOUNT | SUGGESTED ACTION | DISCHARGE TO |
|---|---|---|---|---|
| 1. | #1 Still Jet | 20 GPM | 1. Use the minimum water to condense the steam. No. 1, 2, 3. Run water hot. Reinstall thermometers in tails water line to allow operator to adjust.<br>2. No. 4, No. 5 Jet.<br>a) Adjust water to minimum with rotometer. Eliminate water to one condenser by<br>b) Operating No. 5 jet without the after condenser. Save 7 GPM. Allow steam to discharge to atmosphere (per M.E.Voss) | New Sump Pit |
| 2. | #2 Still Jet | 20 GPM | Same as #1 above | New Sump Pit |
| 3. | #3 Still Jet | 20 GPM | Same as #1 above | New Sump Pit |
| 4. | #4 Still Jet | 20 GPM | Same as #1 above | New Sump Pit |
| 5. | #5 Still Jet | 70 GPM | Same as #1 above | New Sump Pit |
| 6. | Sprinkler Valve | 15 GPM | Issue MRO to repair water leak. | |
| 7. | S&R Jets at Blow Tanks (2) | 20 GPM | Operate with minimum water. Suggest 10 psig and tag valves. | New Sump Pit |
| 8. | Aroclor 1268 Flaker | 2 GPM | Issue MRO to repair leak in water line at union. | Floor-then to New Sump Pit |
| 9. | Aroclor Cooling Tower Water | 30 GPM | Miller/E.G. Wright<br>Make up water now tied open.<br>Repair fan & overflow float. | Acid Sewer |
| 10. | Sink in Aroclor Control Room | -- | Keep water valve closed when not using. | Sump Pit |
| 11. | Chlorinator Cooling Coils when cooler plugged | -- | Shut down & repair cooler | Sump Pit |
| 12. | Cooling Water on Pumps | -- | Use minimum water. | Sump Pit |

MONS 093597

WATER DISCHARGE TO SEWER
MURIATIC ACID DEPT.

| | LOCATION | APPROX. AMOUNT | SUGGESTED ACTION | DISCHARGES TO |
|---|---|---|---|---|
| 1. | East Acid Loading Dock | 4 GPM when water is on | Keep water valve at sink closed when not using. | Phosphoric Acid Sewer |
| 2. | West Acid Loading Dock | 4 GPM | Same as above | Phosphoric Acid Sewer |
| 3. | Sink at Acid Plant | 7 GPM when water is on | Replace bad water valve and keep closed when not using. | HCl Sewer |
| 4. | Drowning Jets 2 Heil(by-pass HCl line from chlors. & line from tails tower. These jets are in series. Enters large jet then to small jet.) | 100 GPM | Issue MRO to relocate pressure gauges in water line to downstream side of valves. Also chain operator for valves so that operator may adjust flow. (If by-pass is not used one jet can handle HCl from tails tower.) If by-pass must be used then open water to second jet. | HCl Sewer |
| 5. | S&K Drowning Jet (Fumes from stg. tanks) | 40 GPM | Issue MRO to replace bad water valve, also replace & relocate pressure gauge. Believe this may possibly be cut completely off when not air blowing.(See TSD section for piping alteration to reduce HCl released when air blowing tank. | HCl Sewer |
| 6. | Acid leak at flange under South carbon tower. | 10 GPM when water is on | Issue MRO to repair leak so that water hose can be removed. | HCl Sewer |
| 7. | Surge Tank Pump leaking at seal | 10 GPM when water is on | Issue MRO to repair leak so that water hose can be removed. | HCl Sewer |
| 8. | Proposed Fume Collection System (Long-Range Loading docks and stg. tanks. | 10 GPM | TSD Proposal - Hale and Etheredge | HCl Sewer |
| 9. | Underground Spring | 20 + GPM | -- | Phos.Acid Sewer |

Note: City water is metered to acid dept. 200 GPM at time of survey. (20 GPM for acid make water, 140 GPM for jets, 40 GPM waste.)

MONS 093598

## WAREHOUSE & PACKAGING AREA

1. The water from this area now running into sanitary sewer is estimated at 100 GPM. It is suggested that this water be piped into return line to cooling tower to save city water. (This is all city water from compressors, biphenyl flaker tank and pumps.)

2. Surface water running off bank, from Aroclor storage tank area, to railroad track at Aroclor loading dock enters a perforated underground pipe. Aroclor from spillage around docks can enter this pipe which drains into neutralization pit. Water also enters this underground pipe through two open drains along railroad track. A steel separator tank located west of neutralization pit has been installed to separate solids.

## BIPHENYL DEPARTMENT

| | LOCATION | APPROX. AMOUNT | SUGGESTED ACTION | DISCHARGE TO |
|---|---|---|---|---|
| 1. | Benzene Storage Tank Pump West Tank Most surface water also goes to Acid sewer. | 2 GPM | Faulkner | Acid Sewer |
| 2. | Conversion Sampler | 1 GPM | Faulkner | Acid Sewer |
| 3. | #1 Decoking Pit Condensate Water | 6 GPM | Faulkner | Acid Sewer |
| 4. | Hydrogen Compressor Cooling Water Tank | 5 GPM | Faulkner Descale compressor to eliminate waste water. | Acid Sewer |

Many steam leaks in #1 & #2 Biphenyl still rooms. Cooling water to sewer when operating. Repair before next ONP run.

W-R PLANT

| LOCATION | APPROX. AMOUNT | SUGGESTED ACTION | DISCHARGE TO |
|---|---|---|---|
| 1. Cut off steam and water | 2 GPM | Faulkner | Phos. Acid Sewer |

MONS 093601

CURRENT TSD, AROCLOR AND HCl WATER REDUCTION JOBS

I. Loading docks and storage tanks fume collection system

A. Net change - 15 to 25 gpm to acid sewer 100% of the time plus 120 gpm 15% of the time instead of existing flow of 180 gpm 100% of the time.

B. The job is being done by J. Etheredge
K. Hale
TSD Job #1045
Premise out by 9-2-70
AFE out by 9-9-70

II. Aroclor Water Recycle

A. Reduce flow from 250 gpm to approximately 50 gpm.

B. Two water recycle system (4 jets)

a. Still jet water recycle (1 jet)

b. Absorber water recycle (3 jets)

C. Job by Jim Mattern
Premise in circulation (8-31-70)

III. Acid Sewer Revision

A. Three choices of operation

a. Route HCl effluent to Aroclor sump.

b. Install sump in existing acid sewer.

c. Install new acid sewer with sump.

B. Job being done by Etheredge
Premise by 9-7-70

C. This job will also provide a system for keeping spent carbon from the HCl carbon towers out of the acid sewer.

V. Temporary Limestone Pit

A. Divert Aroclor containing effluent through temporary pit while cleaning existing limestone pit.

B. TSD and Maintenance.

C. Start up by 9-11-70.

VI. Niran Phosphoric Acid Pit Effluent

A. Neutralize and divert north.

a. Efficient limestone pit to ph 5.2 max.

b. NaOH to 5.7 ph.

B. Neutralize and divert to 36" storm sewer

a. Efficient limestone pit to ph 5.2 max.

b. NaOH to ph 5.7.

C. Do nothing

D. Send to city sewer at Niran

E. Divert to a new acid sewer at 5th and Duncan and route to Snow Creek.

F. Acetone - Optional Process

1. Cut down Niran residue to incinerator
Thereby reducing water flow.

G. A. McCarty
K. Hale

H. 200 gpm flow.