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Anniston Plant

TECHNICAL SERVICES DEPARTMENT

MONTHLY REPORT

Summary

AUGUST 1970

AROCLOR WASTES

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Regulatory Action

In early August, the Alabama Water Improvement Commission informed the plant that FDA had furnished them with fish flesh analyses from samples taken in the Choccolocco-Coosa River Watershed, indicating appreciable levels of Aroclor as well as DDT metabolites. Mercury was also present at low levels. The plant's previous informational contacts with AWIC had prepared them for receiving this news. Due to a high level of public concern about a ban on fishing in some state streams having high mercury level, an intensive program was started immediately to correct remaining major Aroclor discharges. This program will be discussed with AWIC in September.

Current Level

Aroclor losses during August increased to a level of 7280 ppb in plant effluent, equal to 88 #/day. This increase corresponds to high turbidity of the effluent from limestone inert material as the settling capacity of the final acid treatment pit has dateriorated since last clean-out. Process research studies indicate that removal of solids will result in removal of Aroclor.

Plant Effluent Suspended Aroclor Control

The Aroclor department sump was put into service on August 12, three weeks ahead of target, and is controlling at the 100 ppb level in department effluent waters. Second phase is being separated and a high-Aroclor scum is being collected on sump surface. An experimental mechanical skimmer will be installed in September for evaluation in removal of this scum; tests with polyelectrolites in agglomerating this scum were not productive.

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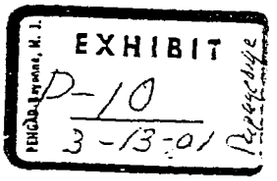

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Final Effluent Treatment

July and August samples from Aroclor sources indicated that the final neutralization pit is now a major remaining source of plant effluent levels. Previous practice in pit cleanout has not been adequate to remove accumulated material, and limestone inert solids apparently are an effective adsorbent in the pit environment. A two phase program based on these facts is underway: 1) a second, uncontaminated pit will be put into service by mid-September to permit shutdown and decontamination of the permanent pit and to develop procedures for alternate operation-cleanout without loss of neutralization or solids-settling capability. Concurrently, gross introductions of Aroclor into the sewer system are being stopped with the Aroclor department sump, new operating and housekeeping procedures, and cleanout of potential collection points in the sewer system. This program is targeted for mid-September completion and should reduce plant effluent to the 200-300 ppb level that is seen in source point water phase analyses. An initial reduction in water use - 100 gpm out of 700 gpm has been accomplished through a checkoff list.

2) Longer term, immediate steps are being taken to develop feasibility and costs of effluent solids-Aroclor reduction through continuous coagulation and clarification. Major vendors in the water treating field are being consulted with a final proposal targeted for December 1. Six projects for water reduction and improved housekeeping are underway and are being expedited.

1. Installation of concrete pads and curbs in major spill areas to replace chat.

2. Reuse water in Aroclor department still jets and blow-tank scrubbers (reduce water-Aroclor contact target - 100 gpm).

3. Reuse water in Muriatic Acid department fume scrubbers and absorber final scrubber and divert acid sewer through Aroclor department sump. (Reduce water-Aroclor contact target - 100 gpm).

4. Upgrade HCl off-gas organics removal system to improve efficiency.

5. Provide a collection system for carbon tower spent carbon to prevent spills to sewer.

6. Further water reductions by rerouting Parathion phosphoric acid wastes.

Bulk Waste Disposal

Data has been gathered on all solid materials to be collected and disposed of. This data has been reviewed and will serve as the basis for scoping a collection system and incinerator. A report will be issued in September on the use of fuel oil to dilute Montar for improvements in handling and pumping for incineration.

Vince

V. R. Haupt

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