Monsanto

FROM (NAME & LOCATION): M. A. Pierle - Delaware River Plant

DATE: July 11, 1972

SUBJECT: PCB System Changeovers

REFERENCE:

TO: W. B. Papageorge
St. Louis

cc: D. B. Hosmer
P. B. Hodges
P. W. Gann
J. F. Winkler
P. R. Parker
D. C. Hoegel

At the request of P. B. Hodges, I forwarded to P. W. Gann one sample of HB40 from the Phthalic Anhydride Unit on June 26, 1972.

The discussion below summarizes the actions taken at the Plant during the changeover from PCB's to HB-40 on the Phthalic and Tetraphthalic Anhydride Units.

General

System changeovers were prompted by company policy on continuing PCB use in "open" heat transfer systems. To our knowledge regulatory officials have never conducted PCB analysis on the Plant's effluent. In-house sampling and analysis indicated effluent levels in the 30 - 40 ppb range.

Project design was based primarily on work already completed on similar high temperature systems at W. G. Krummrich. Following start-up of the TCPA and coincident safety problems, a detailed safety audit was performed. The recommendations were successfully implemented in the Phthalic Unit and start-up was accomplished without safety problems.

TCPA System

The original charge ~ 2000 gallons of FR-2 material was removed by drumming and a 500 gallon charge of HB-40 was added and circulated at 300°C through the system to remove residual PCB. This charge which contained 35% PCB was drummed and shipped with the 2000 gallons to W. G. K. for incineration. The system was then filled with HB-40.

Upon start-up of the therminol furnace and the TCPA process, numerous problems including corrosion and resultant fires occurred. Production operations continued and the system was closed by temporary measures. During June, the Department was shut down, the HB-40 has again been drained and 1000 gallons of

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