Monsanto

COMPANY CONFIDENTIAL

FROM (NAME & LOCATION) E. E. Stewart, W. G. Krummrich Plant

DATE : July 20, 1972

SUBJECT : PCB LOSS CONTROL
DRUM CLEANING AT EVANS

REFERENCE :

TO : B. B. Byrne
Purchasing
JFQ

cc: W. B. Papageorge - G. O.
P. B. Hodges - G. O.
P. E. Heisler
A. E. Leisy
L. P. Russe
W. C. Engman
G. A. Hippe

You are aware that it is imperative that no PCB's be permitted to flow to the sewer as a result of cleaning drums at the Evans Steel Barrel Company on South Second Street. On 6/30, Jim Leyerle, Bill Petty, Larry Russe and Ed Stewart visited Evans to review the drum cleaning operation. I do not know how closely they were following the recommended procedure for washing Aroclor drums, but the equipment was installed to permit washing with kerosene to remove most of the residual liquid Aroclor before caustic washing, as per their regular procedure.

Herb Senoff pointed out two problems he has encountered and is concerned that PCB can get into his sewer stream.

1. Spent kerosene does not drain completely from the drum after the kerosene wash. This residual liquid can remain in the drum and eventually get into the caustic washing system. I believe the spent caustic is sewered through settling basins but PCB's can be present in the flow from the settling basin to the river. He is much concerned about this because he does not want to be closed by the Federal authorities and he expects his streams to be monitored at some time in the future. (We do not want PCB going to the river either.)

2. There are many drums that contain some solids which cannot be removed by the kerosene wash and/or the caustic wash. At present he is cutting the heads of the drums and passing these drums through his incinerator to remove the solid materials from the drum.

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Because of the two problems, Herb wants to discontinue caustic washing Aroclor drums and substitute incineration for final removal of the Aroclor after kerosene washing. From an ecological standpoint, this is satisfactory. In fact, incineration is preferred to the caustic washing procedure provided the incineration temperature is above 1800°C.

I recommend this procedure be followed:

1. Empty drum heels into collection container or kerosene tank.

2. Kerosene wash as per original instruction using 500 gallons of kerosene per 500 drums.

3. Return spent kerosene wash and drum heels to WGK per Herb Senoff-Larry Russe discussion.

4. Pass all drums and removed tops through incinerator. Incinerator must be operated to effectively remove all PCB content from the drum. Temperatures must be above 1800°F.

5. No stream containing PCB's should be permitted to flow to the river.

6. Incineration of PCB's will result in the generation of HCl gas. Approximately 1 lb. of HCl will be produced per 2.5 to 3.5 pounds of PCB that are incinerated.

Edward E. Stewart
Technical Services Dept.

P.S. I have reviewed this with Bill Papageorge. Our correspondence with Evans Steel Barrel concerning PCB should be approved by Monsanto Legal Dept.