Monsanto

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FROM (NAME & LOCATION): Charles E. Cutchens

DATE: April 7, 1972

SUBJECT: PCB Survey

REFERENCE:

TO: D. S. Jennings

cc: D. W. Brubaker, C. R. Campbell, D. E. Danly, B. T. Dean, C. J. Fountain, J. E. Lipe, J. N. Maloney, C. E. Rannefeld, J. J. Vick, S. L. Walters, A. J. Zabineki

A survey of the north ditch drainage make-up area reveals that a rather large section of plant property is contaminated with PCB. A map locating the sampling points around the yarn plant is attached. The analyses are listed in the following table:

Sample No.	Date 1972	Type	Location	PCB as Aroclor 1254 ppb
62	3/10	water	River, across from old O.F.	0.1
63	3/14	water	South outfall	0.2
64	3/3	water	Roof of Yarn Plant	0.4
65	3/14	water	North Ditch	0.7
66	3/6	soil	SW corner of 710 at substation	112
67	3/6	soil	S of Yarn Plant near 711 and plant fence	82
68	3/6	soil	E of Yarn Plant end W of garage	82
69	3/6	soil	NE corner of Yarn Plant at RR track	78
70	3/6	soil	NE corner of 601 and W of Texturizer	N.D.

*N.D. Detection limit for soil samples was 10 ppb.

The water sample from the roof of the yarn plant was taken at various points on the roof immediately after a large rain, i.e. it was not concentrated via evaporation. The PCB was Aroclor 1248 which is in contrast to the Aroclor 1254 found in all other samples listed in this report. Since the water sample contained a relatively high level of Aroclor 1248, one would expect the roof-tar sample to contain a rather high level. An attempt was made to analyze a sample of roof-tar for PCB. A clear PCB pattern could not be obtained because of excessive interference, but there were certain indications that the sample contained PCB. The best estimate is 100 ppm calculated as Aroclor 1254.

The water samples from the north ditch - on the average - contain approximately 0.7 ppb Aroclor 1254. The ratio of PCB concentrations (water/mud) in the north ditch is much greater than in the old south outfall. This suggests sources of PCB exist other than the mud in the north ditch. The mud in the north ditch is an order-of-magnitude higher in PCB content relative to the soil in the drainage make-up area, but the larger contact surface of make-up area possibly more than offsets this difference. Taking

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these things into consideration, one would not expect a new north ditch to solve the PCB abatement problem because it is expected that a new ditch would become contaminated quickly.

Significant progress has been made in clean-up procedures which results in lower detection limits and fewer interferences. The detection limit for water samples in this series of analyses was 0.02 ppb.

Charles E. Cutchens

/bps
Attachment