# Monsanto

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Mr. T. E. Miller
Robinson, Jones Partnership Limited
Ty Gwyddon
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Dear Mr. Miller:

Please excuse the delay in answering your letter of November 28 regarding PCB disposal at Wrexham Industrial Estate.

Below are a couple of points you may wish to consider. In item 3 you imply that landfill of contaminated soil will be used "up to 1% PCB content." If the landfill is suitably constructed so as to insure no contamination of groundwater, much higher concentrations of PCB contaminated soils may be contained. U.S. regulations place no upper limit on PCB soil contamination for landfill disposal.

Item 4 discusses encapsulation of concentrated material. In my opinion, if landfill covering were not suitable for encapsulation, I would look into the cost-effectiveness of soil incineration in a rotary kiln versus other types of encapsulation.

The question of polychlorinated dibenzofurans (PCDBFs) (item 6) is interesting to note but should be of no real significance if the presence of these materials is solely due to incidental contamination of virgin Aroclor material. Amounts of PCDBFs in commercial Aroclor fluids was very low (as shown by the attached reprint from a recent U.S. National Academy of Science report). Thus, as this material is further diluted by soils, etc., its significance diminishes even more. In addition, I would expect PCDBFs to biodegrade much more readily than PCBs because of the oxygen linkages in the structure. However, I have seen no such published reports in the scientific literature to date.

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All of the studies of occupational exposure of workers handling and using commercial Aroclor materials have failed to demonstrate any chronic or acute human health effects except for some reversible skin disorders. These commercial PCB fluids contained whatever inadvertent impurities that might be possible including PCDBFs. (I am enclosing a reprint by Dr. Gaffey of our medical department which reviews retrospective PCB epidemiological studies.)

Sincerely,

John H. Craddock /dkr

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Product and Environmental
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Enclosures

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