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Alison A. Hess C.P.G, (HHRA Comments)
USEPA Region 2
290 Broadway - 19th Floor
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Dear Alison,

My comments refer to neurological effect of PCB in mammals, which were not evaluated in the phase 2 report Volume 2F.

My colleagues and I have published serious effects on brain catacholamines in the rat[1] and monkey[2] caused by PCB. We have evaluated a large number of individual congeners with cells in culture and the most potent congener is clearly 2,2-dichlorobiphenyl[3]. Unfortunately your analytical method may not be measuring 2,2-dichlorobiphenyl correctly, since your spokesperson at the Albany August 4th meeting stated that Aroclor 1242 was the least chlorinated Aroclor mixture used in the analysis.

Another unrelated comment is that I have evidence that your estimated PCB concentration in air is an order of magnitude too low. Bopp and Tofflemire's work was probably and "3Cl+" measurement, so that the major components of upper Hudson River water: 2-chloro- and 22-dichlorobiphenyl were not measured. My data will be reported to the NY

Community Trust by Dr Barry Commoner, CBNS, Queen's College, early next month.

Finally I should like to congratulate all at Region 2 for exquisitely presented and well researched investigations.

Sincerely yours,

Brian Bush

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1. Seegal, R.F., Brosch, K.O., and Bush, B. (1986). Regional alterations in seratonin metabolism induced by oral exposure of rats to polychlorinated biphenyls. Neurotoxicology 7(1):155-166.
2. Seegal, R.F., Bush, B., and Brosch, K.O. (1991) Comparison of effects of Aroclor 1016 and Aroclor 1260 on non-human primate catecholamine function. Toxicology 66, 145-163.
3. Shain, W., Bush, B., and Seegal, R. (1991) Neurotoxicity of polychlorinated biphenyls: Structure-activity relationship of individual congeners. Toxicol. Appl. Pharmacol. 111:33-42.