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# New York State Department of Environmental Conservation

Division of Environmental Remediation

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August 31, 1998

Mr. Douglas Tomchuk United States Environmental Protection Agency Region II 290 Broadway - 20<sup>th</sup> Floor New York, NY 10007-1866

Dear Mr. Tomchuk:

Re: Hudson River PCBs Reassessment RI/FS Site No.: 5-46-031

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the July 1998 Hudson River PCBs Reassessment RI/FS reports entitled "Volume 2C-A Low Resolution Sediment Coring Report Addendum to the Data Evaluation and Interpretation Report," and "Phase 2 Human Health Risk Assessment Scope of Work." This letter provides the State's comments on the two documents.

The Low Resolution Sediment Coring Report (LRSCR) presents four major findings. Following are the State's general comments corresponding to each of these findings.

## Finding 1

"There was little evidence found of widespread burial of PCB-contaminated sediments by clean sediment in the Thompson Island Pool. Burial was seen at some locations, but more core sites showed loss of PCB inventory than showed PCB gain or burial." [Page ES-3]

### **State Comment**

The State agrees that, based on the data contained in the LRSCR, much of the PCB-contaminated sediments in the Thompson Island Pool are not being buried with significant amounts of clean sediment.

## Finding 2

"From 1984 to 1994, there has been a net loss of approximately 40 percent of the PCB inventory from the highly contaminated sediment in the Thompson Island Pool." [Page ES-4]

## **State Comment**

The State agrees that, based on the data contained in the LRSCR, there has been an identifiable PCB inventory loss from the sediments of the Thompson Island Pool. However, based on the data contained in the report, it is difficult to closely quantify the degree of sediment losses. It may be more appropriate for the report to present a range of estimates rather than a single number. This same concern was discussed at the Scientific and Technical Committee meeting on August 18, 1998.

## Finding 3

"From 1976-1978 to 1994, between the Thompson Island Dam and the Federal Dam at Troy, there has been a net loss of PCB inventory in *hot spot* sediments sampled in the low resolution coring program." [Page ES-4]

### **State Comment**

The State agrees that, based on the data contained in the LRSCR, there has been an identifiable PCB inventory loss from the hot spots between the Thompson Island Dam and the Federal Dam at Troy.

#### Finding 4

"The PCB inventory for *Hot Spot 28* calculated from the low resolution coring data is considerably greater than previous estimates. This apparent "gain" in inventory is attributed to significant underestimates in previous studies rather than actual deposition of PCBs in *Hot Spot 28*." [Page ES-4]

#### **State Comment**

The State agrees with this finding based on the data contained in the LRSCR. This inaccuracy in past data gathering efforts may also be present in the PCB inventory estimates in other areas where the core depths were not sufficient in the past. However, NYSDEC believes the USEPA evaluation of sediment PCB inventory gain or loss is valid, and not impacted by the earlier data gathering efforts.

The State also has the following specific comments regarding two other findings of the LRSCR:

- 1. Page ES-5 and Section 4.1.4 second paragraph The finding that areas within the Thompson Island Pool (TIP), outside the known hot spot areas of the TIP, have exhibited a large net gain in PCB inventory (up to a 100% increase) is significant because the PCBs are more readily available to fish and other biota.
- 2. Section 4.4.3 The revised, sediment PCB concentration estimates for the near shore areas are noteworthy. This portion of the river environment has not been well characterized in past investigations, and this information will be useful to both the ecological and human health risk assessments for the site.

The following are the State's comments, including the NYSDOH, on the Phase 2 Human Health Risk Assessment Scope of Work:

1. The first sentence of the first full paragraph of page 9 refers to a hypothetical study population being defined as any individual who would consume self-caught fish from the Hudson River "in

the absence of a fishing ban." This passage should be revised for accuracy to read "...in the absence of a fish possession ban and health advisory."

- 2. The number of years that a person may eat contaminated fish from the Hudson River is estimated in Section II,2.D entitled "Risk Characterization from the Consumption of Fish." Data on how long people live in a county along the river before moving are used to estimate the number of years a person may eat contaminated fish. A significant number of people are likely to move from one county along the river to another county along the river, thus increasing their length of exposure. The number of years that a person may eat contaminated fish from the Hudson River will be underestimated if this possibility is not considered in estimating exposure. Furthermore, a lifetime exposure should be considered in the exposure distribution.
- 3. In evaluating risks, both cancer and non-cancer, the reference dose or cancer potency factor for the Aroclor (e.g. Aroclor 1016, Aroclor 1260, etc.) that is most similar to the PCB mixture in the environmental samples should be used. This approach is more scientifically defensible than automatically using default values as suggested in the Integrated Risk Information System guidance.
- 4. Non-cancer risks are evaluated by comparing exposures to reference doses (ingestion exposure) or reference concentrations (inhalation exposure). Since reference concentrations are not available for the Aroclors, inhalation exposures should be evaluated using reference doses. The risk characterization section of a risk assessment includes a discussion of the uncertainties and limitations of the risk assessment and the uncertainties and limitations, if any, of using reference doses instead of reference concentrations should be included in that section.

As additional information becomes available to the parties, the State would welcome the opportunity to provide comments. The State views the completion of the LRSCR and the Risk Assessment Scope of Work as important Hudson River Reassessment milestones, and is pleased that USEPA is adhering to its Reassessment schedule.

Sincerely William Day For

William T. Ports

Remedial Section A

Bureau of Central Remedial Action

cc: John Davis, NYSDOL
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