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DIRECTOR'S OFFICE

VIA FACSIMILE AND OVERNIGHT MAIL

December 20, 1999

Mr. Douglas J. Tomchuk
US Environmental Protection Agency
Emergency & Remedial Response Div.
290 Broadway - 20th floor
New York, NY 10007-1866

RE: Baseline Modeling Report Peer Review Charge

Dear Mr. Tomchuck:

As requested in your Notice to All Interested Parties dated December 2, 1999, GE has prepared the attached questions that we ask you to include in the modeling peer review charge. We have developed the list of questions that focus on key technical areas where differing interpretations exist between EPA and GE in the hope that these issues will be resolved by the peer review panel. Because EPA has not granted our previous requests to present our work to the peer reviewers along with the EPA contractors, we request that you incorporate all of our peer review questions as written into the peer review charge. Additionally, it is requested that Dr. John Connolly be given 30 minutes to provide his insight into modeling issues on the Hudson River.

If you have any questions or would like to discuss this further, please do not hesitate to contact me.

Yours truly,

John G. Haggard

JGH/bg
Enclosure

EPA BASELINE MODELING REPORT PEER REVIEW CHARGE

***Prepared by: General Electric
December 20, 1999***

1. Are any of the insights and conclusions derived from the modeling inconsistent with insights and conclusions derived from the data analysis (DEIR and LRC Reports) and if so, which is the more reliable analysis? Specifically:
 - Is the TIP the only significant source of PCBs to the water column in the upper Hudson River? Do the down stream river reaches supply a significant portion of the load of PCBs leaving the upper Hudson River?
 - What role does sedimentation have in reducing PCB levels in biota and water over the long term? How does the sedimentation rate in the model compare with the other data analyses (DEIR and LRC Reports)?
 - Estimates of the change in the PCB mass inventory in the fine sediments or so called "hot spots" of the TIP over a ten-year period from 1984 – 1994 have been made using two differing techniques. One is based on the statistical analysis of sediment data collected in 1994 and 1984 and the other is based upon a calibrated PCB fate and transport model. Which of these provides the more reliable estimate and why?
 - Is there compelling evidence that significant quantities of PCB have moved within the TIP from the fine sediment areas to the coarse sediment areas?
2. How well do the sub-models reproduce the observed data? Are there any spatial or temporal divergences of the model results from the observed data that would impact the accuracy of future model predictions?
3. Are the extrapolations of equations and input parameters from the TIP to the lower 34 miles of the Upper Hudson River credible and accurate?
4. Are the various component equations describing sediment transport supported by theory and prior application and have they been parameterized in a scientifically credible manner, making maximum and appropriate use of site-specific data and data from other field and laboratory studies?
5. Has the food web bioaccumulation model been developed and calibrated in a scientifically credible manner, making maximum and appropriate use of site-specific data and data from other field and laboratory studies?
6. When comparing the EPA model to other data analysis methods employed by EPA, which approach provides greater certainty or is more appropriate to use to answer the principal questions of the reassessment?