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June 14, 1991

Mr. Douglas J. Tomchuk
Remedial Project Manager
U.S. Environmental Protection Agency
Region II
Emergency & Remedial Response Division
26 Federal Plaza, Room 747
New York, N.Y. 10278

RE: EPA Hudson River Project - Phase I RRI Presentation

Dear Mr. Tomchuk:

On May 15, 1991, the U.S. Environmental Protection Agency (EPA) held a joint meeting of the Science and Oversight Committees in Albany, New York for the purpose of presenting preliminary findings of the Hudson River Phase I Reassessment Remedial Investigation (RRI). General Electric (GE) was able to attend this meeting and would like to share with you a number of comments and concerns with the findings presented and also the procedures being followed.

GE would like to thank EPA for the presentation and believes such sharing of preliminary information allows a more meaningful dialogue among the interested parties than presentation of formal results in EPA documents. The presentation by your contractor personnel were very professional and while we will reserve final judgement on the work, pending the distribution of the Phase I report for public comment, we are generally encouraged by the quality of the work.

We are also encouraged by the EPA's willingness to allow public comment on the draft documents being generated for the project. Based on the presentation, it is our understanding the draft Phase I report is tentatively scheduled to be released for public comment near July 1, 1991. This document will also include the draft sampling and analysis documents for the field activities expected to be performed during the remainder of 1991. We will be allowed at least a thirty day comment period and the EPA will not implement field activities nor finalize the document until the comment period is over and all comments received have been given due consideration. We would like to avoid the situation that occurred on the Phase I Work Plan where the EPA implemented the Work Plan and had completed major tasks before the comment period was closed.

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With respect to the presentation on the aquatic resources of the Hudson River (upper and lower), the analysis of previous studies in the upper Hudson, and the sources of PCB's in the lower Hudson, we were in general agreement with the conclusions drawn. It is especially noteworthy that the upper Hudson river supports diverse fish fauna and when the aquatic biota surveys performed in the 1930's, are compared to those conducted in the 1980's there is a remarkable similarity in results. The conclusion regarding the lower Hudson were also in general agreement with our findings that the lower Hudson is one of the most diverse fisheries on the Atlantic coast. It was interesting to note your finding that the most important factor controlling the fishery in the lower Hudson was the timing and volume of water flow from the upper Hudson.

With respect to the results of your review of the historical data from the Hudson River, you have made a number of important findings that we have also reached during our analysis of the data. The first is that the magnitude and importance of the 100 year flood may be less than purported by others. Your observation that the 100 year flood is less than 45,000 cubic feet per second is one we look forward to evaluating. While we have not had an opportunity to review the details of your analysis, we support the approach of understanding how the historical data is no longer representative of current conditions due to the now present flood and water flow control projects. With respect to the observation that the PCB levels in the fish and water column have decreased substantially since the late 1970's, we have made the same observation and have found a similar rate of decrease (The EPA observations were; a half life for PCBs in the water column of approximately 3 years, for Aroclor 1016 in fish of approximately 3 years.)

We support your continued evaluation of other PCB sources for the lower Hudson River and concur with your finding that the vast majority of PCB's being input into the lower Hudson presently are not from the upper Hudson, but rather from other sources such as tributaries and sewage discharges. During the presentation, mention was made that the majority of the presentation materials for other PCB sources would not appear in the draft Phase I report. GE requests that a detailed discussion of the sources be included in the draft report or at a minimum GE be allowed access to the information that was presented. Please let me know as soon as possible your plans for use of this material in the draft Phase I report.

The last area covered by EPA at the presentation was the human health risk assessment. GE was pleased to learn that EPA recognizes that the rat slide reread is in progress and may have a significant impact on the whole RRI. In addition, the recognition that different Aroclors may have different risks is also critical. However, GE was again disappointed to hear EPA will be publishing a quantitative risk assessment in the Phase I report, particularly given the obvious data gaps that are present and EPA guidances that defer such assessments to a later phase following data collection and validation. By reference to GE's May 9, 1991 letter to you, we would like to again point out that performance of the risk assessment as proposed by EPA is inconsistent with good science, public policy, and the National Contingency Plan (NCP). GE would again like to request that the quantitative risk assessment be conducted during Phase II of the RRI as specified by the EPA Superfund Risk Assessment Guidance (RAGS) document and the EPA RI/FS guidance.

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During the discussion of the risk assessment, a couple of new items were raised that further show that EPA is following a flawed approach for the preparation of the risk assessment. The first is that it does not appear that EPA is adequately considering the background level of PCB's in the biota, nor the presence of Aroclor 1254 in the biota. During the public meeting in Poughkeepsie, New York, EPA stated that the scope of the RRI was to look at the risks posed by the presence of PCB contaminated sediments that lie in the forty mile stretch of river between Fort Edward and Federal Dam. If this is the case, then the baseline risk assessment must focus on the risks of these sediments to various receptors. This raises a number of concerns with the use of only historical data for the performance of a risk assessment.

1. The historical water quality and fish data include contributions from the sediments within the study area, the background water quality and also the contribution from the remnant deposits. EPA's analysis of the data shows that the time is 1.2-1.5 ppm weighted PCB levels from fish in the 40 mile stretch of river. If the contribution from the remnants is estimated at 37%, then the calculated EPA time weighted average is greatly overestimating the contribution of the in-river sediments. In addition it is not unreasonable to expect at least 10% of this value is due to background contribution. Therefore, if EPA relies solely on the historical data it is not unreasonable to assume that the contribution of the in-river sediments to the water and fish PCB levels (and risk levels) will be greatly overestimated (by approximately 50%).

2. The presence of PCB's in the fish that predominately resemble Aroclor 1254 is an important finding that may have particular relevance to the source of the PCB's. EPA must recognize that the amount of Aroclor 1254 used by GE at it's plants was minuscule in comparison to the amount of Aroclors 1242 and 1016. In addition, EPA's analysis of the rate of decrease of Aroclor 1254 in fish shows a much greater half life than for Aroclor 1242 and 1016 (greater than 10 years verses 3 years). This may be due to a number of factors, including a possibility that there is an on-going upstream source of PCB's (Aroclor 1254) that must be investigated.

3. The remnants remediation is essentially complete. The remnants have certainly had in the past contributed to the on-going load of PCB's. The actual amount is not certain, but a value of 37% of the PCB load has been suggested by New York State investigators. While EPA states that the reason the remnants remediation was performed was to minimize the direct contact and volatilization, the EPA cannot deny that it is reasonable to assume that it would have had an impact on the amount of PCB's entering the water via surface run-off and redepositing of PCBs moving from the deposits to the atmosphere. There is a reasonable technical argument that the remnants have contributed significantly to the PCB load in the water column and the fish in the upper Hudson River. To perform a baseline risk assessment for the sediments, EPA will need to determine what amount of contribution the remnants have made to the PCB content in the biota in the upper river.

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An analysis of the data needs for the "baseline" risk assessment, indicates that the actual PCB contribution from the sediment to the fish is not only critical to know, but is poorly understood. This again shows the inadequacy of the existing data to the contribution of the PCB's in the sediment to the fish body burdens. GE must again request that EPA gather the necessary information to perform an adequate risk assessment prior to preparing the risk assessment, which if the historical data is used, will be technically insupportable and inconsistent with the NCP. In particular EPA needs to collect sufficient data in Phase II, to understand the PCB contribution from the in-river sediments, the remnant deposits and the background levels and their respective contribution to PCB levels in fish. This data must be collected so that a proper, technically defensible "baseline" risk assessment can be prepared. Given the serious technical flaws that GE has repeatedly pointed out to EPA concerning the performance of the risk assessment utilizing the historical data, GE is perplexed with the EPA decision to arbitrarily discount valid technical arguments concerning the use of only existing data in the "baseline" risk assessment.

With respect to the risk posed by direct contact with the sediments, it was stated that the data generated by GE from the H-7 site might be used for this purpose, since it is the most recent data. The information supplied by GE represents a resampling of an area that was thought to contain some of the highest level of PCB's in sediments. These data when viewed alone do not represent the population of PCB values in any portion of the river except the immediate area where the samples were obtained. The actual data used from the risk assessment need to represent a spatially weighted average of all the river and not just the hot spots or the polygons with the highest average PCB concentrations. Reliance on such data is technically indefensible and not consistent with your own risk assessment guidance, which strives for exposure scenarios that are reasonably maximum exposure (RME - 95%) verses worse case exposure.

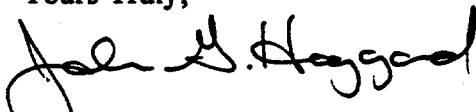
The last issue is with a statement made concerning the adequacy of the fishing ban. Your risk assessment contractor made a statement that essentially said that fishing bans are ineffective. Has EPA made the official determination that fishing bans generally are ineffective or that specifically the Hudson River fishing ban is ineffective? If EPA has come to this conclusion during the scoping phase of the RRI, GE requests all information relied upon to come to this conclusion be made available to GE immediately and placed in the Administrative Record so we can meaningfully review the EPA decision. GE believes the determination of the adequacy of remedies, of which a fishing ban is potentially one remedy, is more properly completed during the feasibility study. This is a very important issue for GE and other interested parties and we believe that immediate clarification is required.

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We appreciate the opportunity to understand what the EPA is doing on this project. As you can tell, we have a number of important issues we feel need immediate attention. We would like to propose a meeting with you in the very near future to discuss the issues raised in this letter. Please let me know what would be a convenient time to hold such a meeting. Contact me at (518) 458-9108 with any questions. I respectfully request that a copy of this letter be placed in the Administrative Record.

Yours Truly,



John G. Haggard
Engineering Project Manager

cc: John Claussen, GE-CEP Fairfield

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