

**HUDSON RIVER PCB REASSESSMENT RI/FS  
COMMUNITY INTERACTION PROGRAM**

**HUDSON RIVER PCB OVERSIGHT COMMITTEE MEETING  
POUGHKEEPSIE, NY  
JANUARY 21, 1992**

On January 21, 1992, a meeting of the Hudson River PCB Oversight Committee (HROC) was held at the Radisson Hotel in Poughkeepsie, NY. Attending the meeting were:

Constantine Sidamon-Eristoff, Regional Administrator, USEPA Region II  
Douglas Blazey, Regional Council, USEPA Region II  
William McCabe, Deputy Director, ERRD, USEPA Region II; HROC Chairperson  
Douglas Tomchuk, ERRD Project Manager, USEPA Region II  
Ann Rychlenski, Community Relations Coordinator, External Programs Division, USEPA Region II; Steering Committee Chairperson  
Arthur Block, ATSDR  
Frank Csulak, Coastal Resource Coordinator, NOAA  
Andrew Raddant, DOI  
Ned Sullivan, Deputy Commissioner, NYSDEC  
Stephen Hammond, Director, Bureau of Central Remedial Action, NYSDEC  
Italo Carcich, Director, Bureau of Technical Services and Research, NYSDEC  
G. Anders Carlson, NYSDOH  
Albert DiBernardo, TAMS Consultants, Inc.  
John Claussen, Hudson Project Team, GE  
Judy Schmidt-Dean, Citizen Liaison Group  
Tom Borden, Agricultural Liaison Group  
Bridget Barclay, Environmental Liaison Group  
Darryl Decker, Governmental Liaison Group

Mr. McCabe opened the meeting shortly after 6 PM. He introduced Mr. Constantine Sidamon-Eristoff, Regional Administrator of USEPA Region II, and stated the purpose of the meeting, which was to give the people, organizations and agencies represented by the HROC members the opportunity to present their issues and concerns to Mr. Eristoff in person. Mr. McCabe expressed the hope that the statements would focus on up-coming activities in the reassessment rather than the Phase 1 Report, as comments have been taken on that already. Presentations were limited to 15 minutes. Attachments 1 - 3 contain the letters of invitation and the meeting agenda.

After general introductions of HROC members and observers, Ann Rychlenski read the minutes of the January 8, 1992, Steering Committee meeting into the record (Attachment 4).

Albert DiBernardo presented a brief status on the reassessment. TAMS and Gradient Corporation are currently involved in three activities: residual activities from Phase 1, Phase 2A sampling work, and generation of the Phase 2 documents.

Residual Phase 1 work involves categorizing and answering all questions and comments received. As to Phase 2A sampling, Mr. DiBernardo stated that approximately 40% of the side scan sonar effort in the upper river is complete. The Thompson Island Pool geophysical studies have been completed, including side scan sonar, bathymetry, and sub-bottom profiling. Weather necessitated scheduling work downstream of the pool for the Spring. Plans for water sampling for the upper river and high resolution coring in the upper and lower river are pending approval at EPA. The Phase 2 documents in the preparation stages are the Phase 2 Work Plan and the Phase 2B Sampling Plan (included in the Work Plan). The Work Plan is approximately 20% complete. No target dates for submission could be provided.

Mr. McCabe called on Mr. Sullivan of NYSDEC to begin the presentations. Mr. Sullivan read a letter from Thomas Jorling, Commissioner of NYSDEC, addressed to members of HROC in response to the questions and issues raised at the Steering Committee meeting (Attachment 5).

Mr. Csulak briefly reviewed comments submitted by NOAA in November, 1991, making particular reference to NOAA's recommendation for an ecological risk assessment which includes the lower river (Attachment 6). In response to Mr. Csulak's remarks, Mr. Tomchuk referenced the original scope of work for the reassessment and stated that EPA is not planning to evaluate remedial alternatives for the lower Hudson as part of this study. Determination of the extent of the ecological assessment to be done is underway and the resulting recommendation will be included in the Phase 2 Work Plan.

Tom Borden, Chair of the Agricultural Liaison Group, and Judy Schmidt-Dean, Chair of the Citizen Liaison Group, followed Mr. Csulak with their presentations (Attachments 7 and 8).

John Claussen of GE then briefly summarized GE's comments on Phase 1 of the reassessment and discussed some viewpoints regarding Phase 2 (Attachment 9).

At this point considerable discussion occurred, generated by questions from Mr. Sullivan of NYSDEC, regarding the opportunity of others to discuss GE's approach. Mr. McCabe stated that the purpose of this 1/21/92 HROC meeting was to allow various groups to present their views. Mr. Claussen then stated that GE would be willing to sponsor a session to review GE's comments and take questions from any interested parties. Mr. Eristoff said he didn't think there was any reason for GE not to do that. Jim Behan, Co-chair of the Citizen Liaison Group, indicated an interest on the part of the community for both the community and EPA to hear GE's comments. Mr. McCabe assured Mr. Behan that GE has had considerable opportunity to contribute to the process and has done so. He cited many meetings and various other

communications to EPA from GE and stated that the process is as open to input as it can be.

Regarding GE's comments on several risk assessment items, Mr. Tomchuk reported that EPA has arranged with GE at their request to hold a meeting on risk assessment issues. This one-day forum would be February 4, 1992, in New York. Attending will be EPA Headquarters and Regional representatives, DEC, DOH, TAMS/Gradient representatives and GE scientists.

Several observers were permitted to make comments at this time. Cara Lee of Science Hudson felt GE's presentation was the equivalent of ex parte communication. She felt many things said should be challenged and was in favor of a session where there could be discussion of such items. Scenic Hudson and other environmental groups advocate that it is not appropriate for GE to have the Chairperson's role on the Scientific and Technical Committee, and, through that, a position on HROC. Mr. Eristoff reasserted that he doesn't meet ex parte with any involved parties. All points of view will eventually be considered in the decision-making process.

Charles Dworkin, DEC, stated he was concerned that GE's presentation could "sway the process." He felt that GE's presentation contained items requiring in-depth consideration at a meeting where the "decision-maker" is not present, so there can be a free exchange of ideas. Mr. Eristoff responded that what the process should bring with it is a recommendation which will be understood by everyone interested and which will allow the "decision-maker" to make a reasonable decision.

Mr. Blazey and Mr. McCabe reiterated that the letter of invitation to the meeting (attachments 1 and 2) was clear in stating that the meeting was to be an opportunity for interested parties "to present their concerns regarding the scope and nature of activities to be performed during Phase 2 of the reassessment as well as their views regarding whether EPA's Phase 1 Report lays a proper foundation for the remainder of the reassessment." Mr. McCabe commented that any comments made to that point in the meeting fit within these guidelines.

Presentations resumed with comments from Darryl Decker, Chair of the Governmental Liaison Group. Mr. Decker opened with an expression of appreciation for the opportunity to take part in the Community Interaction Program. He thanked EPA for allowing anyone interested to make a presentation at the HROC meeting. Mr. Decker referred to comments from the Steering Committee meeting and to letters dealing with DEC's continued pursuit of a dredging/encapsulation solution and pointed out DEC's negative reaction at the meeting to GE's non-dredging presentation. Mr. Decker criticized the slowness of responses from EPA to the issues originally raised at the Steering Committee and from EPA and the Governor to various letters sent by him several months ago.

Mr. Decker asked technical questions on modeling, bathymetry and the proposed coring, which were answered by Messrs. Tomchuk and DiBernardo. Mr. Decker closed by saying he was not sure "they" were pleased with Commissioner Jorling's

response, and that there were concerns about project credibility because of DEC's actions. He cited the one representative from GE versus four people from DEC commenting as evidence that "the deck is clearly stacked."

Bridget Barclay, Chair of the Environmental Liaison Group, questioned the "propriety of GE's role" on the Scientific and Technical Advisory Committee. She cited GE's economic self-interest in the reassessment and recommended that EPA remove GE as Chair of the STC.

Ms. Barclay covered three additional items. First, she stated that she supports continuation by DEC of its current effort in siting studies. In the event that the reassessment results in a remedy involving an on-land facility, valuable time could be saved at that point based on DEC's current work.

Ms. Barclay went on to criticize the manner in which some data were reported in the Phase 1 Report, particularly in the Executive Summary. Finally, she urged EPA to conduct a full ecological assessment of the lower Hudson.

Considerable discussion ensued pertaining to GE's role as Chairperson of the STC. Mr. Eristoff disagreed with Ms. Barclay's concern that GE controls the Scientific and Technical Committee. Mr. DiBernardo stated that the GE member should step down as Chair of the committee. Andy Carlson reminded HROC members of these same concerns expressed by Ron Tramantano at the first HROC meeting and asked that they be kept in mind during the process. Mr. DiBernardo recommended restructuring the committee and making Mr. Tomchuk the Chairperson. In that way Mr. Tomchuk could ensure that the topics discussed were topics pertinent to EPA's reassessment.

Mr. Deppe's remarks followed. He observed two reassessments occurring - the one TAMS is doing for EPA and the one GE is doing. He expressed concern as to how to reconcile the two and attributed many of the existing questions to that dichotomy. Mr. Deppe felt many unsolved problems may be carried into Phase 2, and expressed concern that perhaps the responses to questions raised pertaining to Phase 1 may not be adequate. He would like to know how the process will go forward from here, and how the debates between the scientists will be resolved. Mr. Deppe also requested that the risk assessment meeting referred to by Mr. Tomchuk be open to observers.

In response, Mr. Eristoff said he will have to read and consider all the comments. Given what becomes available to him from the reassessment process, he will make a decision as to what is most protective of human health and ecology in this situation. Participants in the scientific discussions will have to resolve outstanding issues themselves. If a situation occurs where there are two completely opposite conclusions, then he will have to make the final judgement.

After the agenda items were complete, Mr. McCabe opened the meeting to general discussion. Some discussion ensued on the PCB toxicity issue. The cancer potency risk factor used by EPA is a different issue than the FDA's toxicity risk level. The

process to revise EPA's potency risk level is a long one and EPA has not yet agreed to consider it.

Ann Rychlenski requested copies of the presentations for attachment to the minutes and Mr. McCabe adjourned the meeting at approximately 9:15 P.M. Attachment 10 contains the meeting's sign-in sheets.

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NOTE: THIS LETTER WAS ALSO COPIED TO HROC MEMBERS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING

NEW YORK, NEW YORK 10278

Dear Liaison Group Officers:

There will be a meeting of the **Steering Committee** for EPA's Reassessment of the Hudson River PCBS Superfund site on **Wednesday, January 8, 1992, at 7:00 p.m.** The meeting will be held at the Holiday Inn located at 946 New Loudon Road (off Route 9) in Latham, New York. This meeting will be attended by high-level EPA Region 2 officials (including Regional Counsel), who will address the questions raised by the Steering Committee regarding the New York State Department of Environmental Conservation's plans regarding activities at "site 10", and the impact of those plans on EPA's Reassessment process.

In addition, a meeting of the **Hudson River PCB Oversight Committee** has been scheduled for **Tuesday, January 21, 1992, at 6:00 p.m.**, at the Radisson Hotel at 40 Civic Center Plaza in Poughkeepsie, New York. As promised, EPA's Regional Administrator, Constantine Sidamon-Eristoff, will attend this meeting. The purpose of this meeting is to make the Regional Administrator accessible to those participating in the Community Interaction Program, and to provide those participants with an opportunity to present their concerns regarding the scope and nature of activities to be performed during Phase 2 of the Reassessment, as well as their views regarding whether EPA's Phase 1 Report lays a proper foundation for the remainder of the Reassessment.

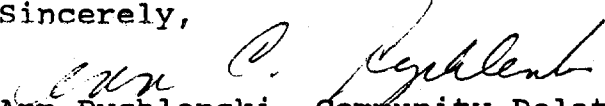
A letter announcing these meetings has been sent to the Liaison Group membership that you represent, with instructions for them to contact you if there is a particular concern or matter that they would like to have raised to the Regional Administrator at the Oversight Committee meeting. Additionally, if there is an individual from **outside** the Liaison Group membership who has information pertinent to the Reassessment which you would like to see brought before the Regional Administrator, they may give a presentation on behalf of the Liaison Group that sponsors them.

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In order to give all the members of the Oversight Committee an equal opportunity to raise their issues to the Regional Administrator, each member will be given fifteen minutes to make a presentation, with the Chairs of the Liaison Groups speaking for their membership. Please remember that if you choose to sponsor a presenter from outside the Liaison Group membership, their presentation will be counted as part of the sponsoring group's fifteen minutes. If you have any questions regarding either of these meetings, please contact me at: 212/264-7214. We will discuss the agenda items for the Oversight Committee at the Steering Committee meeting.

Thank you for your continued participation in the Community Interaction Program and have a happy holiday.

Sincerely,

  
Ann Rychlenski, Community Relations Coordinator  
Office of External Programs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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As you know, your elected officers represent the Liaison Group membership on the Steering and Oversight Committees and will be in attendance at both of these meetings, although a few seats will be available for observers. If there is a particular concern or matter that you would like to have raised to the Regional Administrator at the Oversight Committee meeting, please make sure to get in touch with your Chair or Co-Chairs and communicate this to them. Additionally, if there is an individual from outside the Liaison Group membership who has information pertinent to the Reassessment which you would like to see brought before the Regional Administrator, they may give a presentation on behalf of the Liaison Group that sponsors them.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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NEW YORK, NEW YORK 10278

HUDSON RIVER OVERSIGHT COMMITTEE MEETING

Tuesday, January 21, 1992

6:00 P.M.

Radisson Hotel, Poughkeepsie, New York

A G E N D A

Welcome & Introduction

William McCabe, Chair  
Hudson River Oversight  
Committee

Summary of Steering Committee  
Meeting Held 1/8/92

Ann Rychlenski, Chair  
Steering Committee

Report on Phase 2A Activities  
and Sampling Efforts

Al DiBernardo  
TAMS Consultants, Inc.

Presentations by Members of  
Hudson River Oversight Committee

William McCabe, Moderator

Also in attendance for EPA:

Constantine Sidamon-Eristoff, Regional Administrator  
Doug Blazey, Regional Counsel

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING

NEW YORK, NEW YORK 10278

**HUDSON RIVER PCB REASSESSMENT  
COMMUNITY INTERACTION PROGRAM**

**MEETING OF THE STEERING COMMITTEE  
HELD WEDNESDAY, JANUARY 8, 1992 IN LATHAM, N.Y.**

**R E P O R T**

A meeting of the Steering Committee was held on Wednesday, January 8, 1992 at the Holiday Inn in Latham, New York. The meeting was opened at 7:00 p.m. by Ann Rychlenski, Steering Committee Chair. All members of the Steering Committee were present with the exception of Ennio Ruggi (Co-Chair, Citizen Liaison Group), Kate Reilly (Co-Chair, Environmental Liaison Group), Paul Lilac (Co-Chair, Governmental Liaison Group) and Phil Griffin (Co-Chair, Agricultural Liaison Group). It is noted that Mr. William Bradley sat in on behalf of Phil Griffin.

In addition to the regular members of the Steering Committee, also in attendance that evening were:

Doug Blazey, Chief, Office of Regional Counsel  
U.S. EPA, Region 2  
William McCabe, Deputy Director, Superfund, U.S. EPA,  
Region 2  
Paul Simon, Section Chief, Office of Regional Counsel,  
U.S. EPA, Region 2  
Charles Dworkin, Counsel, NYSDEC  
John Durgosits, Manager, Project Sponsor Group, NYSDEC

In addition to the Steering Committee members, a number of observers were present throughout the meeting.

Liaison Group activities were reported on as follows:

Tom Borden, Chair, Agricultural Liaison Group, reported that a meeting of his group was scheduled for Thursday, January 16, 1992 at 1:00 p.m. in Schuylerville, NY. Judy Schmidt-Dean, Chair, Citizen Liaison Group, also called a meeting for that same day at 7:00 p.m. at the same location. The purpose of both meetings was for the groups to prepare their presentations before the Hudson River Oversight Committee meeting to be held on January 21, 1992.

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The major focal point of the Steering Committee meeting was a discussion of the questions raised by the Liaison Group members regarding NYSDEC's planned activities at "site 10". William McCabe gave EPA's answers to the questions raised, and Paul Simon and Doug Blazey gave legal clarifications where needed. In addition, representatives from NYSDEC also made themselves available to answer questions put directly to them about NYSDEC activities and plans. Al DiBernardo of TAMS, Inc. (EPA's contractor) gave a brief presentation and update on Phase 2A and the sampling efforts over the past few months. The meeting was tape-recorded, and full minutes of that meeting including discussions and comments will be available in the near future.

The meeting adjourned at approximately 10:00 p.m.



STATE OF NEW YORK  
DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK 12233-1010

THOMAS C. JORLING  
COMMISSIONER

January 21, 1992

Dear Member of the Hudson River Oversight Committee:

I am pleased to have the opportunity to address your concerns regarding the Project Sponsor Group and the Hudson River PCB Reassessment Project. This letter is to provide clarification and a written response to the concerns which were raised through the United States Environmental Protection Agency's Reassessment's community interaction program. The New York State Department of Environmental Conservation (NYSDEC), through our Division of Hazardous Waste Remediation, is actively involved with the project providing management assistance to EPA through a cooperative agreement.

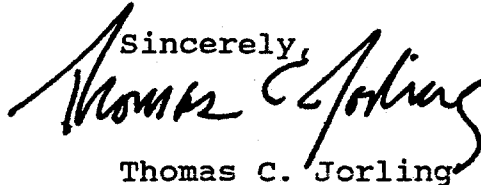
As you are aware, the DEC's Project Sponsor Group is proceeding with the preparation of an application to utilize a location in Washington County known as Site 10 as a treatment and encapsulation site for contaminated materials to be dredged from the Hudson. No final commitment will be made to undertake the dredging and encapsulation project or any appropriate alternative until the U.S. EPA has completed its reassessment of its 1984 Record of Decision. In addition, the work of that reassessment will be incorporated into the Department's record of proceeding for the permit application processes and will be valuable in any decision on the applications at the State level. In the meantime, we will continue to share information and work closely with EPA in their reassessment studies. I believe that the Department's PCB Project activities as well as the schedule for carrying them out are quite compatible with that of the EPA reassessment process.

It should be noted that we do not consider our decision regarding dredging contaminated sediments from the Hudson River irrevocable. The Reassessment Project is designed to be a comprehensive review and reevaluation of the Hudson River PCB contamination problem. We would certainly reconsider our position on dredging provided another remedy can be sufficiently demonstrated to be capable of achieving equivalent protection of human health and the environment.

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We look forward to USEPA continuing to proceed in an open, objective, and timely manner to reach a sound environmental decision regarding the appropriate remedy to the Hudson River PCB problem. We will continue to work closely with them and encourage your continued participation in the Reassessment Project as well.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas C. Jorling".

Thomas C. Jorling

## NOAA's Concerns about the Hudson River Reassessment Remedial Investigation and Feasibility Study

### **I    *The RI/FS should...***

#### ***... Include a thorough ecological assessment.***

Such an assessment is needed to develop a remedy that protects public health and the environment, including NOAA trust resources in the Hudson River.

***and***

#### ***...evaluate remedial alternatives addressing reservoirs of PCBs in the sediments of the lower river.***

Even if all of the contamination in the upper river is cleaned up, an estimated 85,000 kg of PCBs remains in the sediment of the lower Hudson that is mostly the result of transport from the upper Hudson.

**II    *The lower Hudson River should be included in the ecological assessment component of the RI/FS because...***

***...of the NCP and SARA.***

The NCP requires that environmental evaluations assess threats to the environment, especially sensitive habitats and critical habitats of species protected under the Endangered Species Act.

Remedial decisions (including continuation of the "no-action" alternative) must be based on a comprehensive ecological assessment to properly document current and potential risks to natural resources from PCBs.

***and***

***...the lower river provides important habitat for many species.***

These species include striped bass and the endangered shortnose sturgeon. Fish in the lower river are affected by PCBs from the upper river and from PCBs in the sediment throughout the river.

- 1    Striped bass from the Hudson River are a major component of the Atlantic coast commercial striped bass fishery. PCB-contaminated striped bass using the Hudson River may be caught in their entire range along the Atlantic Coast.**
- 2    The endangered shortnose sturgeon spawns in the area immediately below the Troy dam and juveniles use the river downstream to the salt wedge. These fish may be affected by PCBs in violation of the Endangered Species Act.**
- 3    Four National Estuarine Research Reserves have been established by NOAA and the State of New York along the Hudson River. Continued downriver migration of PCBs may adversely affect resources in these reserves.**

### **III The ecological assessment should...**

**...identify potential exposures and effects to ecological receptors.**

Fish are key receptors of concern. They are part of major foodweb pathways to humans, birds, and terrestrial organisms.

**and**

**...categorize the lower Hudson River by salinity and/or biological communities into at least three different environmental regimes.**

This would allow a thorough ecological assessment to be conducted.

### **IV The ecological assessment should be used to...**

**...provide information to evaluate proposed remedial alternatives.**

The alternatives need to be evaluated for their potential to provide protection for resources at risk and human health.

Determining levels of PCBs in fish tissue in both the upper and lower river will be necessary to estimate potential benefits of different remedial alternatives and would provide an important measure of the success of remedial actions.

#### **NOAA Contact:**

Frank Csulak, NOAA Coastal Resource Coordinator Region II, 212-264-6785

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Hudson River Oversight Committee  
Agricultural Liaison Group Report  
January 21, 1992

Report to :  
Constantine Sidamon-Eristoff  
EPA Region II Administrator

Dear Administrator Eristoff;

I'm Tom Borden, chairman of the Agricultural Liaison Group. I am a dairy and fruit farmer from Washington County and Vice-President of Washington County Farm Bureau. The Agricultural Liaison Group has many interested and concerned members. We appreciate the opportunity that EPA is giving us to contribute to this reassessment process. It certainly is an excellent idea to get community involvement in this process. This is a huge project that presents important issues. This is reflected by the membership of our committee. Many are farmers who already work long and hard hours. Many already have other commitments such as school boards, town boards, volunteer fire departments, and county Farm Bureau boards. We don't take on participation in "another" project for lack of things to do.

Through letters, phone conversations, and a meeting held last Thursday, January 16, I have become aware of many concerns that our group members have.

The first of which would be our role as a Community Interaction Group. Ann and Karen have been very helpful with meeting arrangements and Al from TAMS does an excellent job of presenting the more technical information and answering questions, but, unfortunately, it has not always been clear what is expected of us and what impact our comments have. Although we are given time to ask questions and give comments, we do not always receive timely responses to questions not easily answered by people in attendance at these committee meetings. Even at this meeting, we are to comment about Phase 1 and Phase 2 when we have not yet seen responses to some of our previous Phase 1 comments nor have we seen a Phase 2 Work Plan. It really concerns our group that we don't really know if our comments make any difference before we're asked to comment again.

To illustrate: our group still has many of the same concerns that we had last summer, I hate to keep remaking these comments, but having not seen the Phase 1 responses, I don't want to see these issues dropped at this point:

1. This assessment is said to be directed at the Upper Hudson but PCBs in the Lower Hudson are continually considered in Phase 1. If concerns about the Lower Hudson are real and it is really an improvement in Lower Hudson contamination that is sought, then ALL OTHER SOURCES have to be identified and quantified, otherwise it would be impossible to determine how much, if any, benefit could be

derived from an extremely costly remediation of Upper Hudson sediments only.

2. Is the EPA reevaluating its PCB health risk standards to reflect newer knowledge of degree of chlorination and its impact on health risks? If PCBs do not pose the health threat that was once thought, then we should certainly determine this in time to incorporate these new standards with the risk assessment on this project. Why have we waited all of these years if we will not at this point use the most up to date knowledge that is available on PCB contamination.

3. The affects of dredging, both good and bad, need to be considered before this reassessment process proceeds much further.

Hopefully part of the purpose for tonight's meeting is to respond to some of these concerns. In the future I would like to suggest that all our liaison groups' comments addressed to this committee be responded to in writing and that this written response along with a copy of the liaison group's report be mailed to ALL liaison group members. I feel that this would demonstrate a serious consideration of all issues presented to all members of the liaison groups.

Questions that arise from our meetings should be answered in a "reasonable" amount of time - within a month anyway. If a full answer is not possible, than at least a progress report should be received within this period.

Further points on procedure:

1. I know we've been told that it has to be this way, but here goes again: Why do these Oversight Committee meetings have to be in Poughkeepsie? If community interaction is seriously desired, we should at least meet as far north as Albany - which is still south of the project area. Our participation doesn't pay us mileage or expenses. I suspect most other members do.

2. I think the role of the Steering Committee and timing of its meetings should be reevaluated.

We also have questions on how a final decision on this issue will be made. Specifically, what weight will be put on the various inputs, i.e. scientific, other government agency, public, and our liaison groups? How long will it take to make such a decision? What sort of final response do our liaison groups make? Do we take a vote among our members? Does the Oversight Committee make a final recommendation and does our group have a vote in this decision?

As local farmers we have long had many concerns related to landfilling (or encapsulation) in farming areas. Even a dredging project has at least a "perceived" contamination problem with farm livestock and crops in the area. Suppose Ben & Jerry's decides they don't want PCB contaminated milk. Whether the risk is real or not, the value of the areas' crops is affected. We don't need to make problems that aren't there. We don't want New York farmland to be continually attacked with landfill and encapsulation sites

simply because it lacks the population to prevent it. In fact the area surrounding Site 10 already seems to have its fair share of waste disposal sites.

As you know, NYDEC continues to favor dredging as solution to this PCB issue. Their extremely active role and blatant bias continues to alarm our committee members. Apparently EPA doesn't consider this an issue yet, but DEC's huge expenditures to this end have tainted this reassessment and cast a cloud of doubt over the integrity of this process. In fact the total cost of a dredging project makes all taxpayers want to make sure it is absolutely necessary. I know some will say this project would cost taxpayers nothing, GE will pay. We would submit that we will all pay ultimately and areas where GE plants reside may pay more.

I also represent New York Farm Bureau, with 23,000 members. At our recent Annual Meeting we reaffirmed our opposition to "dredging PCBs from the Hudson River.

In view of the 1984 ROD and the results so far of Phase 1, we really see no way that a dredging project can be justified. However, we do want this community interaction process to work and we do want to see this process continued so that these issues can fairly and responsibly be addressed. We thank you for this opportunity to express our views and hope you will consider them as seriously as we have offered them.

Sincerely,



Thomas A. Borden

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January 21, 1992

Comments to the Hudson River Oversight Committee

I had difficulty preparing for my fifteen minute presentation and I kept going back to a feeling I've had for sometime and one voiced by a Citizen at our meeting last Thursday night. Coming from a literary rather than scientific background, this Reassessment is becoming a big, sprawling novel of mystery and intrigue. I'm beginning to even speculate on who Oliver Stone will cast in our roles when he makes the movie a few years from now.

I had told Ann that my agenda would consist of three parts: 1. My response to the response of the two letters that I had written with other Liaison Group members to the EPA and NYS Gov. Cuomo last November concerning DEC actions at Site 10; 2. Specific questions that the Citizens raised at our meeting last Thursday night; and 3. Procedural or business questions.

But, as I write this, I still have yet to receive a response to either letter, although I have to assume that Bill McCabe did answer for EPA at our last Steering Committee Meeting, but regardless, that throws 1. out. As for 2., I honestly feel a bit foolish asking these questions as they still pertain to Phase I, which now seems so long ago, or with the announcement of Phase IIA Sampling, the specifics of the Phase II Workplan. Both Phase I Responsiveness Summary and Phase II Workplan are probably sitting on Doug's and Al's desks, and we're told not ready for issue until March, so that throws 2. out too. (Although I do have these questions written up and will discuss them with Doug and Al at another time).

As far as 3. goes, procedural or business questions seem moot, but perhaps more important and telling than the others.

The entire project has gotten out of sync. The announcement last fall by DEC that they will proceed with their own dredge project regardless of the Reassessment and its outcome has seriously marred these proceedings. It is ridiculous for Citizens to still be asking questions about Phase I. We should have had the Responsiveness Summary before the Holidays and especially before the Phase II Sampling began. I realize that it is a monumental task, but then perhaps more staff should be added when necessary. If the Community Interaction Plan does matter and if our input matters, then we have to actually see that it matters.

And this is especially true in light of General Electric Co's "Executive Briefing" - comments on Phase I - simple, concise, easy to read and understand. This also brings up the entire GE Question - What is their role and contribution to the Reassessment? Is their report on last summer's activities and testing due to the EPA by Feb.15, a part of the Reassessment?

Concerning the Scientific & Technical Committee, what is their status? We heard about their identity crisis, of concerns parallel to many of our own, at the last Oversight Committee Meeting, but have heard nothing since. Surely, they must have comments and opinions on Phase I, comments about DEC's statement and most certainly suggestions for Phase II. We have no way of knowing what they are thinking or doing. Whether it be in the form of notes, minutes, reports or even a representative form the Committee informing us at a Steering Committee meeting - we should know what they're doing. And obviously, the reverse is true - they should know what we are all doing.

As the members of the Scientific & Technical Committee represent a diverse background in PCB and related study, Phase II does seem an appropriate spot for their inclusion. It would perhaps, make it easier for them to understand their role in the Reassessment and what their goals could be.

With our timing off like this, with the past being so much a part of the present, the fires of intrigue are fueled and our confusion and frustration mounts. I find myself pondering motives, strategies, looking to one action masking another.

Why do some of EPA's actions, or inactions, at this PCB Superfund Site seem so inconsistent with other PCB/Superfund Sites? Are the differences, even cautions legal? or political? And whose legal issues? whose political issues? And just how far reaching are they?

DEC has offered their Big Compromise - of waiting to make a decision until the Reassessment is over, but according to Siting Board Hearing procedures, they do not have the staff available to even mount a Hearing. So this is a compromise then? Was their timing in releasing this information accidental or intentional? The end of Phase I being a perfect place to stop the Reassessment?

And what happened at the meeting between EPA Officials and the three DEC Deputy Commissioners? Why was it closed? As it threatened the entire Reassessment, why didn't the Steering Committee and Scientific & Technical Committee meet with them for answers?

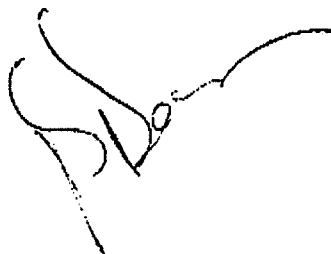
The realities of complex interactions sometimes do lie "between the lines" and sometimes do not make themselves known until the end. This I can accept and is what I meant when I said that the past is so much a part of the present in this Reassessment. But this kind of speculation can, in the extreme, be counterproductive and I don't want to lose sight of our reason for being here.

I was very pleased to hear about the Phase IIA Sampling Plan and that the congener/specific PCB issue is being considered. But here again I have to ask that the Risk Assessment be reconsidered in Phase II. It is only common sense that if the toxicity level has decreased, then the risk level has decreased also. And while this sampling is being done, a few checks on the number of fisherman spotted fishing might dispell the DEC estimate that 10,000 fisherman are fishing these waters and consuming massive amounts of fish.

I was also pleased that more and more we are hearing about other sources of PCBs in the river and suggest that these investigations continue.

We had asked ourselves a question last fall when DEC made their statement, about whether we could continue with the Reassessment, knowing what their intentions were and the wrench they were throwing into the works. I feel now that I can continue for two reasons. One, I'm willing to gamble that the EPA has enough confidence in their own power as a governing agency to continue, and two, that this action by DEC is nothing more than a red herring. Any good mystery novel has a few red herrings thrown in, and I'm willing to gamble that this is ours.

Judy Schmidt-Dean  
Chair/Citizen Liaison Group



# Hudson River

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## Agenda

- **Phase 1 Comments**
  - Where we agree or disagree:
    - The condition of the River
    - The real risks from PCBs
    - Benefits and cost of various remedies
    - PCB sources that impact the River
- **Phase 2 Direction**
  - What are the objectives?
  - What data are needed?
  - How will it be evaluated?
- **Policy Issues**
  - Standardizing/streamlining the Superfund process
  - National focus on innovative technologies
  - Precedents for other sites
- **Conclusions**

# Hudson River

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## The Best Solution Must Consider And Weigh All The Evidence

- Improving River conditions
  - Historical trends
- New science and facts on PCB risks
  - Toxicity
  - Exposure
- Understanding of the complex Hudson River system
  - Quantitative, integrated framework
  - Future projections
- Benefits and costs of dredging vs. natural restoration
  - Environmental
  - Social
  - Economic
- Sources of PCBs

# Hudson River - Phase 1 Comments

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Improving River Conditions - *Since 1984, PCBs levels in water, fish and sediment have declined as anticipated by EPA's ROD.*

## GE Position

## EPA Phase 1

- Water

- Significant declines in PCB concentrations Agree

| (Summer Average in ppb; USGS Data) |             |             |
|------------------------------------|-------------|-------------|
| <u>Location</u>                    | <u>1978</u> | <u>1989</u> |
| Waterford                          | 0.48        | 0.033       |
| Schuylerville                      | 0.73        | 0.038       |
| Ft. Edward                         | 0.22        | 0.026       |

- After 1983, PCB concentrations no longer rise with higher water flows or higher concentrations of suspended solids (GE analysis of USGS data) Not specifically addressed

# Hudson River - Phase 1 Comments

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## Improving River Conditions

### GE Position

### EPA Phase 1

- Sediment

- Masses of PCBs are less than estimated in 1984
- At Polygon 5 of Thompson Island Pool, 1984 DEC average was 2,437 ppm; 1990 GE average was less than 20 ppm
- Average at potential GE research station sites in 1990 was 10 - 20 ppm
- Number of chlorines per PCB molecule has also declined
- Original PCB mixture (Aroclor 1242) contained 3.2 chlorines; 1990 GE samples of sediment contained 2.3 chlorines

Agree generally but question adequacy/ comparability of data

Not addressed

# Hudson River - Phase 1 Comments

## Improving River Conditions

### GE Position

### EPA Phase 1

- Fish and biota
  - The Upper Hudson supports a "diverse and high quality fishery resource" Agree
  - Fish PCB concentrations have declined exponentially over the past 10 years Agree but question extent of PCB decline in recent years
  - Average number of pollution intolerant invertebrate species increased from 1972 to 1988 reflecting a general improvement in water quality Agree

# Hudson River - Phase 1 Comments

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## Improving River Conditions

### GE Position

### EPA Phase 1

- Fish and biota (cont.)
  - 1990 DEC striped bass survey for the Lower River and Marine District
  - Since 1988 alone, concentrations in the estuary have been reduced between 25 and 48%
  - Average PCB level in the lower estuary is 2.8 ppm; in the Marine District, 1.3 ppm

New data  
after Phase 1

- GE and EPA generally agree that all PCB levels, and therefore exposures, have decreased since last EPA decision not to dredge
  - The burden is on EPA to establish that river conditions have changed and now justify dredging

# Hudson River - Phase 1 Comments

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## New Science and Facts on PCBs Risks

*The Latest Science About PCBs And More Accurate Projections Of Human Exposure Show That The Types Of PCBs In The Upper Hudson River Do Not Harm Human Health*

### GE Position

### EPA Phase 1

- New science and facts to be considered:
  - All 209 PCB congeners do not have identical toxicological characteristics Agree
  - Reassessed cancer potency data are available that are more relevant to PCBs in Hudson sediments Noted but uses old data
  - The epidemiological evidence does not indicate that exposure to PCBs results in elevated cancer risk in humans Evidence is inconclusive
  - Natural dechlorination is an additional mitigating factor in the cancer potency of PCBs cancer risks Not addressed

# Hudson River - Phase 1 Comments

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## New Science and Facts on PCB Risks

### GE Position

- Current information on PCB toxicity does not support the use of non-cancer endpoints
- Site-specific facts show that the default assumptions about human exposure to PCBs, particularly through consumption of Hudson River fish are grossly exaggerated

### EPA Phase 1

Disagree and contrary to national policy calculates non-cancer risks

Not addressed

### **The Agency Must Decide:**

- Does guidance on toxicity and exposure bind the Agency to ignore the most current science?
- Can a national precedent on non-cancer toxicity for PCBs be established without EPA HQ review?
- How should the Agency gather and use site-specific toxicity and exposure data?

# Hudson River - Phase 1 Comments

## New Science and Facts on PCB Risk

| <u>Factors</u>                        | <u>GE Assumption</u>      | <u>EPA Assumption</u> |
|---------------------------------------|---------------------------|-----------------------|
| Average fish consumption              | 20-1/2 lb. fish meals/yr. | 50-1/2 fish meals/yr. |
| Exposure concentration                |                           |                       |
| - 1986 - 88 mean                      | 3.2 mg/kg                 | 12.0 mg/kg            |
| - 30 year projected mean              | 0.4 mg/kg                 | 1.5 mg/kg             |
| Cooking loss                          | 25%                       | 0                     |
| Cancer Slope Factor                   |                           |                       |
| - 60% chlorination                    | Not applicable            | 7.7 mg/kg/day         |
| - 42% chlorination (forced +)         | 0.2 mg/kg/day             | 7.7 mg/kg/day         |
| - 42% chlorination (reread)           | 0                         | 7.7 mg/kg/day         |
| Scaling factor                        | Body weight               | Surface area          |
| Cancer Risk                           |                           |                       |
| - Forced + Slope Factor               |                           |                       |
| -- 1986-88 mean                       | $1.5 \times 10^{-5}$      | $2 \times 10^{-2}$    |
| -- 30 year mean                       | $1.9 \times 10^{-6}$      | $2 \times 10^{-3}$    |
| - Reread Slope Factor                 | 0                         | --                    |
| Non-Carcinogenic Reference Dose (Rfd) | 0                         | $1 \times 10^{-4}$    |
| Non-Cancer Risk (Hazard Index)        |                           |                       |
| - 1986-88 mean                        | Not applicable            | 51                    |
| - 30 year mean                        | Not applicable            | 6                     |

# Hudson River

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## Understanding of the Complex Hudson River System

*An Integrated, Quantitative Framework For Analyzing PCB Fate and Transport Would Show There Is No Significant Benefit From Dredging.*

- The critical challenge is to weigh the costs and benefits of various remedial options
- Adequate assessment of remedies must consider many factors including:
  - Volatization
  - Absorption
  - Desorption
  - Particulate and dissolved transport
  - Settling
  - Resuspension
  - Biological interactions
- A simple qualitative approach is not capable of evaluating the complex processes that affect PCBs in biota in space and time

# Hudson River

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## Understanding of the Complex Hudson River System

- Only an integrated, quantitative model of PCB fate and transport can consider all these factors to predict to future PCB trends and the benefits of various remedial alternatives
- For over 30 years EPA and many state and regional agencies have used these models extensively to address specific water quality issues, e.g., James River, Long Island Sound
- Thomann model sponsored by the Hudson River Foundation already considered the impact of dredging versus natural restoration on Lower River PCB concentrations
  - Dredging will not reduce PCB concentrations in Lower River fish to FDA levels significantly faster than natural restoration

- EPA Must Define As Part Of Its Phase 2 Workplan How it Intends To Analyze The Complex River System and The Data Collected

# Hudson River

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**Benefits and Costs of Dredging - *Dredging of the Upper Hudson Presents A Host of Environmental And Social Problems That Led To EPA's Rejection Of That Technology In 1984; Dredging Technologies Have Not Improved Since Then***

- The benefits of natural restoration must be weighed against the adverse effects of dredging:
  - Turbidity and resuspension
  - Increased bioavailability of PCBs
  - Destruction of River habitats and benthic communities
  - Long-term ecological effects
  - River erosion and deposition
  - Navigational impacts
  - Aesthetic impacts
  - Health and safety risks

# Hudson River

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## Benefits and Costs of Dredging

- Areas to be dredged are less defined now than in 1984. Because of reduced concentrations, 90 tons must now be dredged to remove one pound of PCBs.
  - Sediments are likely to be deposited in shallow waters near shore lines. These areas qualify as wetlands and are invaluable habitats for the ecosystem.
  - Selective dredging will cause bottom instability with further erosion and enhanced bioavailability
  - Beyond dredging, EPA must then address difficult problems associated with:
    - Transporting huge volumes of slurry to a disposal or treatment site
    - Methods of disposing and/or treating the material
- EPA Cannot Defer Resolution Of The Adverse Impacts And Problems Of Dredging to the Post-ROD Design Phase

# Hudson River - Phase 1 Comments

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## Sources of the PCBs

*PCB Contamination of the Hudson River Did Not Result From the Massive Movement of PCBs From A Single Upper Hudson River Source, Such As the GE Plants, But Rather From Minimal Movement From Several Local Sources*

### GE Position

### EPA Phase 1

- Individual categories of Lower River sources "contribute PCB inputs of similar magnitude to current loads from the Upper Hudson" Agree
- Striped bass migratory patterns and types of PCBs found in them show that Hudson River sources are not the main contributor to PCBs in marine district and Long Island Sound bass Not addressed
- Resident fish disprove the existence of an upper to lower River PCB concentration gradient Not addressed

e.g., DEC data on PCBs (ppm) in largemouth bass

|        | <u>1986</u> | <u>1987</u> | <u>1988</u> |
|--------|-------------|-------------|-------------|
| RM 153 | —           | 2.0         | 3.6         |
| RM 112 | 11.1        | ---         | 5.9         |

# Hudson River - Phase 1 Comments

## Sources of the PCBs

### GE Position

### EPA Phase 1

- Six categories of data demonstrate that the origin and movement of Hudson PCBs is, and has been dominated by, multiple sources
  - Radionuclide dating of sediment cores Relies on erroneous data
  - Local variability in PCB composition Agree
  - Regional trends in PCB levels Agree
  - Regional trends in PCB composition Agree
  - Regional differences in total PCB loading Not addressed
  - PCB movements in other estuaries Not addressed

- EPA has an obligation under the NCP to determine the sources of contamination during the RI process

Table II. Sediment Activities of Fallout and Reactor Radionuclides and Concentrations of PCBs from Cores in the Low-Salinity Reach of the Hudson Estuary (1977)

|                                          |       |                          |                         |                         |                           | Aroclor, ppm                |                            |
|------------------------------------------|-------|--------------------------|-------------------------|-------------------------|---------------------------|-----------------------------|----------------------------|
|                                          |       |                          |                         |                         |                           | 1242                        | 1254                       |
|                                          |       |                          |                         |                         |                           |                             |                            |
| FOUNDRY COVE                             |       |                          |                         |                         |                           |                             |                            |
| Core Site C (kmp 86.6, 1/77, CN 1240)    |       |                          |                         |                         |                           |                             |                            |
|                                          | 0-1   | 1530 ± 38                | 28 ± 13                 | 73 ± 10                 | 27.9 ± 1.4                | 7.48 ± 0.52                 | 0.97 ± 0.22                |
|                                          | 1-2   | 1610 ± 44                | 47 ± 16                 | 55 ± 13                 | 28.6 ± 1.7                | 9.28 ± 0.65                 | 1.15 ± 0.35                |
|                                          | 2-3   | 2000 ± 48                | (75 ± 16) <sup>b</sup>  | 98 ± 13                 | 30.9 ± 1.4                | 11.6 ± 0.5                  | 1.42 ± 0.42                |
| 1971 →                                   | 3-4   | (2400 ± 56) <sup>c</sup> | (75 ± 16) <sup>b</sup>  | (145 ± 13) <sup>d</sup> | 34.7 ± 1.9                | 19.3 ± 0.9                  | 2.35 ± 0.54                |
|                                          | 4-5   | 2240 ± 55                | 30 ± 16                 | 110 ± 14                | 35.4 ± 1.9                | (26.0 ± 1.4) <sup>e</sup>   | 3.06 ± 0.82 ← PCB<br>PEARL |
|                                          | 5-6   | 2060 ± 56                | -7 ± 13                 | 89 ± 15                 | 41.4 ± 2.7                | 20.8 ± 1.7                  | 2.32 ± 0.60                |
|                                          | 6-7   | 2010 ± 48                | 5 ± 10                  | 67 ± 12                 |                           | 21.6 ± 1.6                  | 2.38 ± 0.61                |
|                                          | 7-8   | 2180 ± 54                | 12 ± 11                 | 83 ± 12                 | 47.5 ± 2.2                | 14.7 ± 1.3                  | 1.77 ± 0.33                |
|                                          | 8-9   | 2130 ± 54                | -7 ± 11                 | 95 ± 13                 | 53.4 ± 1.9                | 12.6 ± 0.9                  | 1.64 ± 0.29                |
|                                          | 9-10  | 1970 ± 49                | -7 ± 10                 | 100 ± 12                | 49.6 ± 2.3                | 9.36 ± 0.87                 | 1.49 ± 0.20                |
|                                          | 10-11 | 2120 ± 50                | 1 ± 10                  | 70 ± 11                 | 54.9 ± 2.3                | 6.31 ± 0.41                 | 1.17 ± 0.11                |
|                                          | 11-12 | 2130 ± 59                | -14 ± 13                | 41 ± 15                 | 68.3 ± 2.6                | 5.17 ± 0.31                 | 1.44 ± 0.13                |
|                                          | 12-13 | 2170 ± 57                | -13 ± 12                | 67 ± 14                 | 73.8 ± 2.0                | 5.57 ± 0.43                 | 1.26 ± 0.09                |
|                                          | 13-14 | 2140 ± 68                | -10 ± 16                | 47 ± 19                 | (76.6 ± 5.3) <sup>e</sup> | 5.30 ± 0.33                 | 1.39 ± 0.13                |
|                                          | 14-15 | 1990 ± 48                | -18 ± 10                | 36 ± 11                 | 55.6 ± 1.9                | 5.70 ± 0.60                 | 1.60 ± 0.03                |
|                                          | 15-16 | 1680 ± 55                | 4 ± 16                  | 43 ± 18                 | 53.1 ± 2.1                | 2.60 ± 0.20                 | 0.78 ± 0.06                |
|                                          | 16-17 | 1440 ± 38                | 2 ± 9                   | 17 ± 10                 | 48.6 ± 1.9                | 3.90 ± 0.30                 | 1.21 ± 0.10                |
|                                          | 17-18 | 1160 ± 42                | -10 ± 14                | 16 ± 15                 | 39.8 ± 2.1                | 3.30 ± 0.23                 | 1.10 ± 0.16                |
|                                          | 18-19 | 770 ± 29                 | -8 ± 11                 | -4 ± 14                 | 25.9 ± 0.8                | 2.17 ± 0.18                 | 0.92 ± 0.09                |
|                                          | 19-20 | 580 ± 29                 | -11 ± 9                 | -8 ± 10                 | 20.4 ± 0.9                | 1.58 ± 0.15                 | 0.90 ± 0.08                |
|                                          | 20-21 | 380 ± 21                 | -5 ± 11                 | 24 ± 13                 | 12.5 ± 0.6                | 1.20 ± 0.09                 | 0.73 ± 0.08                |
|                                          | 21-22 | 200 ± 18                 | 1 ± 11                  | 13 ± 13                 | 6.3 ± 0.4                 | 0.72 ± 0.04                 | 0.47 ± 0.06                |
|                                          | 22-23 | 105 ± 15                 | 8 ± 10                  | 26 ± 11                 | 3.2 ± 0.3                 | 0.51 ± 0.02                 | 0.34 ± 0.06                |
|                                          | 23-24 | 22 ± 12                  | 8 ± 9                   | -14 ± 11                | 0.8 ± 0.1                 | 0.22 ± 0.03                 | 0.23 ± 0.07                |
|                                          | 24-25 | (19 ± 11) <sup>d</sup>   | -6 ± 9                  | 8 ± 9                   | (0.5 ± 0.1) <sup>d</sup>  | 0.33 ± 0.03                 | 0.19 ± 0.04                |
|                                          | 25-26 | -9 ± 13                  | -5 ± 10                 | -6 ± 10                 | 0.2 ± 0.1                 | 0.25 ± 0.07                 | 0.09 ± 0.02                |
| INDIAN POINT                             |       |                          |                         |                         |                           |                             |                            |
| Core Site D (kmp 69.5, 7/17/77, CN 1264) |       |                          |                         |                         |                           |                             |                            |
|                                          | 0-2   | 1090 ± 51                | 82 ± 25                 | 96 ± 21                 | 5.7 ± 0.5                 | 3.95 ± 0.62                 | 0.57 ± 0.04                |
|                                          | 2-4   | 1130 ± 54                | 54 ± 25                 | 95 ± 21                 | 8.2 ± 1.0                 | 2.29 ± 0.37                 | 0.34 ± 0.03                |
|                                          | 4-8   | 1730 ± 66                | 120 ± 28                | 195 ± 27                | 10.2 ± 0.6                | 7.41 ± 0.51                 | 0.87 ± 0.09                |
| 1971 →                                   | 8-12  | (4140 ± 93) <sup>c</sup> | (395 ± 29) <sup>b</sup> | (420 ± 20) <sup>d</sup> | 10.0 ± 1.2                | (10.06 ± 0.60) <sup>e</sup> | 1.29 ± 0.19 ← PCB<br>PEARL |
|                                          | 12-16 | 3220 ± 70                | 255 ± 22                | 280 ± 17                | 9.8 ± 0.3                 | 8.30 ± 0.53                 | 1.07 ± 0.19                |
|                                          | 16-20 | 2200 ± 46                | 160 ± 12                | 175 ± 9                 | 10.9 ± 0.9                | 7.23 ± 0.25                 | 0.90 ± 0.13                |
|                                          | 20-24 | 1590 ± 43                | 78 ± 14                 | 115 ± 14                | 11.0 ± 0.2                | 6.72 ± 0.27                 | 0.88 ± 0.15                |
|                                          | 24-28 | 1280 ± 38                | 52 ± 15                 | 190 ± 16                | 9.2 ± 0.4                 | 7.34 ± 0.37                 | 0.90 ± 0.12                |
|                                          | 28-32 | 970 ± 32                 | 32 ± 13                 | 99 ± 14                 | 7.6 ± 0.4                 | 4.90 ± 0.35                 | 0.71 ± 0.06                |
|                                          | 32-36 | 860 ± 41                 | 15 ± 16                 | 100 ± 19                | 8.4 ± 0.4                 | 3.70 ± 0.39                 | 0.52 ± 0.03                |
|                                          | 36-40 | 1020 ± 35                | 7 ± 13                  | 145 ± 16                | 9.8 ± 0.7                 | 4.28 ± 0.39                 | 0.53 ± 0.04                |
|                                          | 40-44 | 845 ± 35                 | 19 ± 9                  | 130 ± 12                | 6.8 ± 0.4                 | 3.57 ± 0.28                 | 0.40 ± 0.04                |
|                                          | 44-48 | 520 ± 35                 | 4 ± 18                  | 47 ± 19                 | 5.3 ± 0.3                 | 2.10 ± 0.34                 | 0.31 ± 0.04                |
|                                          | 48-52 | 410 ± 19                 | 8 ± 9                   | 47 ± 11                 | 4.2 ± 0.2                 | 1.61 ± 0.14                 | 0.25 ± 0.01                |
|                                          | 52-56 | 255 ± 21                 | 11 ± 13                 | 17 ± 16                 | 1.7 ± 0.2                 | 0.65 ± 0.09                 | 0.11 ± 0.01                |
|                                          | 56-60 | (11 ± 10) <sup>e</sup>   | -9 ± 9                  | 3 ± 9                   |                           | <0.03                       | <0.02                      |
|                                          | 60-64 | -5 ± 10                  | 14 ± 8                  | -5 ± 9                  |                           | <0.03                       | <0.02                      |

<sup>a</sup> We interpret the maximum concentration in PCBs to have resulted from removal of a dam just downstream of the release area in 1973. <sup>b</sup> Maximum activities in reactor nuclides ( $^{137}\text{Cs}$ ,  $^{60}\text{Co}$ , and part of the  $^{134}\text{Cs}$ ) are attributed to releases made in the year of maximum releases at the reactor site (1971). <sup>c</sup> We interpret the maximum in fallout nuclides to be associated with the year of highest fallout from nuclear weapons testing (1963). <sup>d</sup> We interpret the first appearance of fallout nuclides in this core to be associated with the beginning of measurable fallout from nuclear weapons testing (1954). <sup>e</sup> The first appearance of anthropogenic radionuclides in this core can most probably be associated with the last dredging episode at this site, which apparently occurred in the late 1960s.

TABLE 6.2.1-1

# **Hudson River - Phase 2 Direction**

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## **Current Region II Approach**

- Phase 1 report did not offer conclusions or recommendations; Project Objectives for Phase 2 were not defined yet data collection commenced.
- EPA is scheduled to issue:
  - Response to Phase 1 comments
  - Phase 2B data collection plan
  - Phase 2 work plan
- Data collection efforts may be limited by "target" project completion date
- Modeling of the river system considered too difficult and would result in project delays

- EPA Should Not allow Administrative Issues to Dictate the Direction of the Project or Compromise Its Scientific Credibility

# Hudson River - Phase 2 Direction

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## Suggested GE Approach

- Clearly define Project Objectives and allow meaningful comment on them
- Based on Project Objectives, then define methods of analysis to meet the Objectives and prepare Phase 2B data collection plan
- Allow comment on Phase 2 plans
- Implement Phase 2 plans

- The definition of Project Objectives must occur prior to definition of data needs.
- Meaningful comment on these objectives is necessary before EPA defines Phase 2.

# **Hudson River - Phase 2 Direction**

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## **Suggested Project Objectives**

Define:

- 1 What is the potential exposure to PCBs due to the consumption of Hudson River fish?
- 2 What reduction in PCB levels in fish will occur over time naturally?
- 3 What impact will a large storm event i.e. 100 year flood, have on PCB levels in Hudson River Fish?
- 4 What reduction in PCB levels in fish will occur over time and under various remediation schemes (e.g. capping, hot spot dredging, bank-to-bank dredging, etc.)
- 5 What are the environmental damages that will result from dredging in the Hudson River?

# Hudson River - Policy Issues

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- National Policy Favoring Alternative Technologies
  - Administrator Reilly and EPA HQ have focused national attention on these alternatives as priorities
  - But the Phase 1 report discloses a clear bias against these alternatives
  - The Hudson is an excellent site to test the Agency's commitment to those priorities because the River is cleaning itself and is a lab for GE's \$50 million R&D program
- Cleanup Precedents For Other sites
  - Abstract application of cleanup criteria would lead to dredging and landfilling in all contaminated sediment cases
  - Decisions must consider whether other remedies can realistically attain the cleanup criteria and at what costs (environmental, social and economic)
  - Alternative technologies require that EPA take a more flexible look at cleanup criteria

**HUDSON RIVER PCB REASSESSMENT RI/FS  
COMMUNITY INTERACTION PROGRAM**

**HUDSON RIVER PCB OVERSIGHT COMMITTEE MEETING  
POUGHKEEPSIE, NY  
JANUARY 21, 1992**

**PLEASE PRINT CLEARLY**

| NAME             | ADDRESS (INCL. ZIP)                                          |
|------------------|--------------------------------------------------------------|
| FRANK CSILAK     | NOAA<br>26 FEDERAL PLAZA RM 3137-C, NY NY 10278              |
| Merrilyn Pulver  | Agricultural Group<br>RD1 Fort Randall, NY                   |
| Tom Borden       | Chairman Ag. Liaison Group                                   |
| Sharon Ruggi     | 15 Burgoyne Ave.<br>Hudson Falls, N.Y. 12839                 |
| John Delroot     | Citizen's Liaison Group<br>Delroot Rd                        |
| Dr. H. L. Decker | Govt. Liaison Group Chair.<br>6 No. Park St. Cambridge, N.Y. |
| Pete Lanahan     | GE                                                           |
| Mark Behan       | Behan Communications / GE                                    |
| Andrew Raddant   | DOI                                                          |
| Paul McDowell    | New York Farm Bureau                                         |
| Beth Gelber      | Scenic Hudson                                                |
| Carla Lee        | Scenic Hudson                                                |
| John Haggard     | GE                                                           |
| KARL BERGER      | DEC                                                          |
| Jim Behan        | Citizen Liaison                                              |

HUDSON RIVER PCB REASSESSMENT RI/FS  
COMMUNITY INTERACTION PROGRAM

HUDSON RIVER PCB OVERSIGHT COMMITTEE MEETING  
POUGHKEEPSIE, NY  
JANUARY 21, 1992

PLEASE PRINT CLEARLY

| NAME             | ADDRESS (INCL. ZIP)                                        |
|------------------|------------------------------------------------------------|
| Stephen Hammond  | DEC - DHWR                                                 |
| William T. Ports | NYSDEC - DHWR                                              |
| Dee C. Therman   | Greene Co. EMC<br>30 Willowbrook Farm Rd Catskill NY 12414 |
| Andrew Rubin     | NYS DOH                                                    |
| Anita Katalski   | NYS DOH 2 UNIV. PL. ALBANY 12203                           |
| Arthur Block     | ATSDR                                                      |
| Jonie Bower      | Clearwater -                                               |
| C. G. Duckin     | NYSDEC - ALBANY                                            |
| Pam Weiant       | VASSAR College, Box 1836<br>POUGHKEEPSIE, NY 12601         |
|                  |                                                            |
|                  |                                                            |
|                  |                                                            |
|                  |                                                            |
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