

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2 290 BROADWAY NEW YORK, NY 10007-1866

DRAFT

United States Environmental Protection Agency Hudson River PCBs Reassessment Remedial Investigation/Feasibility Study (RRI/FS) Community Interaction Program

Hudson River PCBs Oversight Committee Meeting July 21, 1999 Poughkeepsie, NY

On July 21, 1999, as part of the United States Environmental Protection Agency's (EPA's) Community Interaction Program, a meeting of the Hudson River PCBs Oversight Committee was held on the campus of Marist College in Poughkeepsie, NY. The EPA team present consisted of William McCabe, Deputy Director of Superfund Program for EPA Region II, who chaired the meeting; Doug Tomchuk, Remedial Project Manager; and Doug Fischer, Attorney. In addition to Mr. McCabe, members of HROC in attendance included:

- Andy Carlson, State Health Department Bureau of Environmental Exposure Investigation;
- John Dergosits, New York State Canal Corporation;
- Walt Demick, New York State Department of Environmental Conservation (NYSDEC);
- John Haggard, GE Hudson River Project;
- Dave Adams, substituting for Darryl Decker, Government Liaison Group; and
- Jeff Schiafo, substituting for John Santacrose, Environmental Liaison Group.

The agenda for the meeting is Attachment 1. Sign-in sheets are found in Attachment 2. The use of brackets - [] - indicates clarifications made by the writer in cases where otherwise the text would be unclear to those not at the meeting. Copies of the audio tapes recorded at the meeting are available on request.

Mr. McCabe opened the meeting with several announcements.

- EPA has made available an new project schedule noting recently completed activities and containing a more detailed breakdown of upcoming events (Attachment 3). Particularly, the Ecological and Human Health Risk Assessments are about to be released, and Joint Liaison Group (JLG) meetings will be held to present those meetings on August 4 and 5, 1999.
- EPA has determined from sampling done at Rogers Island as a result of pending development there that a removal action is warranted for several properties on the island.

EPA is currently doing further delineation sampling on those properties to determine what the scope of the removal effort might be, including looking at other contaminants. By the end of September, EPA will prepare an Action Memo describing the proposed action, which will take place in October.

Mr. McCabe read a letter from Tom Borden, Chairperson of the Agricultural Liaison Group, citing the liaison group's support for concurrent peer review of both EPA's and GE's Hudson River models by the same peer reviewers, stressing "considering all available information" in the decision-making process. Mr. McCabe reiterated that the agency will not do side-by-side peer review of the two documents. He cited a letter by the EPA Administrator, Carol Browner, explaining the agency's position.

Mr. McCabe stated for clarification that it is not the purpose of peer review to choose which of two approaches is best. Peer review is to determine whether the agency is using sound science. EPA has a tool, the model, and wants to know if that tool will get the job done. EPA has received a lot of comments on the model, and if there are comments that point out "some inaccuracies or some modifications" that are necessary and that the agency agrees with, the agency will modify the model. EPA's modeling consultant has contacted GE's modeling consultant to determine the availability of part of GE's model if EPA determined it wanted to use it (although it has been decided not to use it at this time). EPA has met with GE and will respond to all comments. In this way, all available information will be considered.

Rich Schiafo, representing Scenic Hudson, stated that Scenic Hudson supports EPA's position.

A member of the audience asked whether there should be a peer review of anticipated control technologies in anticipation of a potential decision involving removal and treatment of contaminated sediments from the river. The speaker suggested that discussion of technologies might be the subject of a future meeting.

Mr. McCabe stated that because the technologies [that will be discussed in the Feasibility Study] are available technologies and do not represent "new" or "innovative" thinking, EPA does not believe it is necessary to peer review the FS, and said further that all the technologies considered receive a significant amount of review by the agency, by the Scientific and Technical Committee associated with the project, by the state, and by GE, for example. Also, the National Academy of Sciences has been commissioned to look at remediation of PCB-contamination sediment sites, which involves a review of technologies and implications of remediation of such sites.

Mr. Tomchuk presented a recap of the Baseline Modeling Report (BMR). This presentation was a slightly modified version of the presentation given at the JLG meeting in Albany on May 18, 1999, and the minutes of that meeting should be referenced for highlights of the presentation and for attachments containing the Executive Summary of the BMR and a hard copy of the slides that accompanied the talk. The only difference in the slides used at the two meetings is that slides pertaining to projections at River Mile 168, Stillwater, were not addressed due to the discovery after the May 18 JLG meeting of a mathematical error that has subsequently been corrected.

Mr. Tomchuk cited additional work EPA is undertaking: calibrating with three additional congeners; extending the predictions to longer periods to accommodate longer exposure periods and to help determine how long it will take for PCBs in fish to reach acceptable levels; and corrected the data input error that was discovered. The rest of the comments EPA has received are still being evaluated. EPA will make changes to the model as appropriate, prepare a responsiveness summary, and prepare a revised BMR.

Question/Comment: Clearwater Environmental Action Group had several questions and comments: 1) are there other models at other sites, could EPA save work utilizing them, and has EPA looked at them? 2) EPA has been working on the river a long time; "the chemistry is the same all over the country...a lot of this knowledge should have been picked up from other projects - plug in the particular sediments, the particular seepage, the particular concentration in the hot spots, and what's the big deal here?" 3) She felt a perfect model was not necessary, and stressed the need to address human health and not get "caught up in the fascination of knowing everything."

Response: 1) Mr. Tomchuk said EPA does look at other modeling efforts, including the EPA's own fate and transport work at the Fox River. He compared a model to a software program that requires input in order to produce a product; a model"chassis" is used for numerous sites but is meaningless without site-specific data. 2) The Fox River is the other system that has had modeling of this type done, and EPA Region II took the same type of modeling done on the Fox River and applied it [to the Hudson]. He said one would hope this [Hudson model] would come up with some universal truths about sediment and water. 3) Protection of human health and the environment is EPA's charge. When EPA makes its decision it will have to defend that decision in court. In order to do this, the agency needs a good scientific basis for its decision. Mr. McCabe added a reference to his earlier statement that EPA was not looking for a perfect model, but wants it to be as good as possible, and that is what is being determined now. This model will also be applicable for analysis of remediation scenarios. Mr. Adams pointed out that a good model is necessary to predict whether a particular remedial action would achieve a benefit, or if the risk [of its implementation] to the river would be too great.

Comment: A representative of the Appalachian Mountain Club contended that EPA has been stalled for ten years in taking action on the Hudson to remove and destroy the PCBs. He cited Administrator Carol Browner's testimony before the legislature last year.

Response: Mr. McCabe pointed out the Ms. Browner's and the agency's commitment to the schedule.

Additional audience comments were tabled until after the roundtable of committee members.

Mr. Carlson, New York State Department of Health (DOH): Mr. Carlson provided an update on the DOH's latest health advisory regarding fishing, and an update on the last oversight meeting on DOH's efforts to educate anglers about the fish advisories. A copy of the fish advisory is Attachment 6. Mr. Carlson highlighted several changes to the advisory, two of which pertain to the Hudson. The previous advisory had said to eat no fish except American shad from the Hudson River between the Federal Dam at Troy and the bridge at Catskill. That has been relaxed with regard to allowing limited consumption of alewhite, blueback herring, rock bass, and yellow perch. Another change prohibits consumption of eels between Dobbs Ferry and Graystone, based on identification of elevated levels of PCBs in another source

along the river. The general advisory for all freshwater fisheries in New York State and some marine fisheries is to eat no more than one meal per month.

DOH's "Ranger" outreach program to help people understand the fish advisories along the river has two segments, one dealing with the Hudson River from Hudson Falls to the Battery, and the other (currently under development) to address New York Harbor from the Throgg's Neck to the Verrazano Narrows. To date, seven river rangers have been hired, four of which have been assigned to the Hudson Falls/Battery stretch of the river. Mr. Carlson showed those present two of the advisory signs that have been posted at likely fishing access points. He explained that the up-river rangers visit fishing locations daily and have tallied approximately 1000 contacts to date with people fishing in those areas.

Rich Schiafo, Scenic Hudson, representing the Environmental Liaison Group: Mr. Schiafo had no report from the liaison group.

John Haggard, GE: Mr. Haggard reported that GE has continued its cleanup efforts at its Hudson Falls plant site; he stated that PCB discharge levels into the river from that site have been reduced "significantly" over the last few years. This summer GE will drill in the river bed for the first time to investigate the rock below the falls, with the goal of bringing the PCB-contaminated water in the rock up and into GE's treatment plant.

GE released its model of the Hudson in May and followed with a series of community meetings up and down the river. Mr. Haggard cited some similarities between EPA's and GE's model with regard to large-mouth bass and some differences, and offered some of GE's own predictions of PCB levels over time: levels in the Thompson Island Pool (TIP) area in large-mouth bass will be down below/at the 2 ppm level by about 2010; in the remainder of the river GE's model says PCB levels in large-mouth bass will be below 2 ppm near 2000. GE's position that natural recovery is "going to get us to the 2 ppm; dredging is not going to accelerate that." GE has also made revisions to its model and issued an errata sheet and has submitted its comments on EPA's model. Finally, Mr. Haggard stated GE supports simultaneous peer review of the two models.

John Dergosits, New York State Canal Commission: Approximately 30,000 cubic yards of sediment are gained in the navigation channel of the canal system per year (the Hudson River is part of the system between Ft. Edward and Troy). The corporation is precluded from dredging in the system due to the presence of PCBs, which in Mr. Dergosits' view implies that in a few years "we won't have a [navigable] canal system. Since the governor is trying to promote tourism in the area, the corporation has been developing harbors and facilities along the canal system for recreational boaters and other users, including landside users, but the possibility exists that before long boats will not be able to move between harbors.

Walt Demick, NYSDEC: Mr. Demick's group assists EPA and oversees what GE is doing at the upriver plant sites. A proposed remedial plan has been released for the GE plant at Ft. Edward; NYSDEC has received comments and is preparing a responsiveness summary. NYSDEC is dealing with four operable units at the Hudson Falls plant. Currently, a proposed remedial plan is being prepared for units 2A and 2B. Investigations are still ongoing for 2C and 2D, involving deeper bedrock concerns.

Mr. Tomchuk asked Mr. Demick if NYSDEC's bathymetric data were available, leading to a related question from Mr. Dergosits. He stated that the [EPA] baseline modeling for the TIP shows a two-cm

influx of sedimentation over the pool over a ten-year period. He would like to be able to find out what that equates to in annual volume to compare to what the commission is seeing in the channel. Mr. Tomchuk pointed out that those data do not distinguish between fine- and coarse-grained areas.

Mr. Dergosits also inquired as to whether, after EPA's remedial action is completed, the Canal Corporation would be in a position to remove PCB-contaminated channel sediments; has EPA considered the potential impact of long-term maintenance dredging of the upper Champlain Canal on the model? He pointed out the potential impact of the corporation's dredging to its "constitutional mandate of 12 feet" on the EPA's remedial action after the fact.

Mr. Tomchuk said the baseline model reflects current conditions, including sediment build-up but not maintenance dredging at this point. It is one of the things [EPA] has to look into for the FS and consider with regard to the various remedial scenarios. Mr. McCabe commented that the timing would be most important.

Mr. David Adams, sitting in for Darryl Decker of the Governmental Liaison Group, asked for clarification of how results of the risk assessments will be used for the modeling. Are risks going to be calculated over some period of time, using input from the model? And if so, then the various guideline ppm levels do not specifically enter into the risk calculation, and would not be the criteria by which [EPA] would decide what to do for remedial action. Mr. Tomchuk affirmed both statements.

In response to Mr. Adams' question as to what "acceptable risks" EPA uses as its guide, Mr. Tomchuk stated that for cancer risk, EPA looks at one case in a million (10-6) as a point of departure, and an acceptable range (as to whether or not EPA takes an action) is 10-4 (one case in 10,000) to 10-6. For non-cancer risks, EPA uses a hazard index of one; if that index is exceeded, a problem is considered to exist. Mr. Tomchuk clarified that those target level criteria could come into play if in the FS some of the goals of reaching acceptable risk levels are found not to be practicable; EPA might then look at some of the target levels as something to be achieved.

Mr. Adams expressed some concerns. He 1) felt the report lacked completeness [in its explanation of rationale for calibration data used]; 2) did not understand why full calibration was not done below the Thompson Island Dam; 3) did not understand the treatment of cohesive and non-cohesive sediment areas; 4) feels an excessive number of parameters were used to calibrate the model; 5) is concerned about the iteration of the calibration between the sediment transport and the PCB fate models; 6) does not see a basis for the large difference in the model between sediment-to-water PCB low flow transfer rates between the TIP and the area below the TIP; 7) is concerned about having an adequate model.

Mr. Adams referred to Figure 7.4, which shows an increasing divergence between the model prediction and the data for PCB concentrations. He felt the model "overpredicts" the data, and the divergence increases. Over a 30-year future period, how much will the model overpredict? He asked, given the uncertainties, how EPA could use the model results in the upcoming risk assessments. Mr. Adams suggested getting EPA's and GE's modeling contractors together to "resolve their differences" and "come out with a recommendation that would result in a good model that we could use."

Mr. George Hodgson, Director of Saratoga County EMC, distributed a resolution passed by the Saratoga County Board of Supervisors requesting EPA to peer review all modeling information relating to the Hudson River Superfund PCB reassessment (Attachment 7).

Mr. Tomchuk reiterated EPA's position with regard to uncertainty Mr. Adams discussed: the projections of fish concentrations should be within an acceptable range of uncertainty; even with refinements, the level of uncertainty will not change substantially. If there were gross differences in the model projections, they would be corrected in the responsiveness summaries to the risk assessments.

In response to another statement from Mr. Adams regarding postponement of the baseline model peer review from Fall 1999 to March 2000, Mr. McCabe pointed out that the peer reviewers themselves recommended the postponement, feeling it is important that they see the responsiveness summaries and all the unsolicited comments. In order to review all EPA's science, peer reviewers need to have reports that include the responsiveness summaries, because those include any revisions and changes.

Mr. Adams also felt the reviewers were too constrained by the questions they had to answer; both Mr. McCabe and Mr. Tomchuk pointed our the importance of peer reviewers having focused questions to be sure that they addressed specific items that EPA wanted addressed; however, there will be an opportunity for the reviewers to have more general discussion at the next peer review.

Comments continued with Mr. Schiafo, who began with a process question by noting for the record that Mr. Adams' views were his own, and not necessarily those of the Governmental Liaison Group. He stated on behalf of Scenic Hudson that they saw the errata sheet on GE's model previously referenced by Mr. Haggard as containing significant changes to the results and conclusions that make GE's model more consistent with EPA's. He cited, for example, that GE's original model said the average [PCB] concentration in large-mouth bass would reach 2 ppm by next year, but the errata sheet says that timeframe is now ten and possibly 24 years. Mr. Schiafo inquired as to whether EPA will take that errata sheet into account even though the official comment period has passed. Mr. Tomchuk acknowledged that EPA would look at the errata sheet.

Mr. Schiafo closed by commenting on DOH's changes in the ppm standards in their fish advisories (which Mr. Carlson indicated were in response to changes in the FDA guidance), and urged EPA to continue to schedule meetings in the Poughkeepsie area.

Mr. Hodgson still supports comparative peer review. He asked why EPA could not do the baseline modeling responsiveness summary and the peer review, and extend consultation with GE, before using the modeling in the risk assessments. Mr. Tomchuk repeated that the projections are within the uncertainty range that is acceptable. Mr. McCabe added that although what is being suggested has validity, it is not peer review in terms of EPA's peer review policy. EPA's peer review policy says "here is your science; is it sound and credible."

Mr. Hodgson objected to postponing the baseline modeling and responsiveness summary peer review until March 2000 but using the modeling this August for the risk assessments; Mr. Tomchuk once again restated that if there were differences in the numbers, they would be recalculated in the responsiveness summary to the risk assessments. Accommodation of changes is built into the schedule.

Sara Underhill of the Ulster County Friends of Clearwater observed that if PCBs are removed from the river, eventually PCB levels in the fish and the air will go down and stay down. She asked if it is not morally GE's civic duty to remove the PCBs, both because they created [the current situation] and also because they can afford it, and EPA's duty as employees of the people to demand this of GE.

Mr. McCabe stated it is EPA's duty to find out what the problem is and to decide whether or not taking some action makes any sense. EPA does not yet have that answer. Mr. Haggard stated GE has made a commitment to the river, as evidenced by the work being done at the plant sites. He acknowledged a scientific dispute as to what "makes sense to be done further to accelerate the recovery."

Another speaker proposed that [people] would lose their naivety about PCBs when family members, friends, and animals develop cancer, and suggested there is an urgency to the matter. He spoke of a study from St. John's University saying 4 parts per billion of PCBs alter DNA and kill cells. While the modeling "is good," emphasis should be on the public health issues.

A speaker formerly with NYSDEC commented that some opposition to dredging stems from the belief that dredging will stir up more PCBs and exacerbate the problem downriver, and that dredging means putting PCBs in a landfill nearby. Calling these two beliefs "myths," he mentioned newer dredging techniques that do not stir up the river and advanced thermal stripping techniques that remove contaminants from sediments and taken elsewhere for disposal, thereby eliminating the need to landfill [contaminated] sediments. He believes "Congressman Sweeney et al are misinformed because they see dredging = landfill, and that's an archaic technology."



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2

290 BROADWAY NEW YORK, NY 10007-1866

HUDSON RIVER PCBs REASSESSMENT OVERSIGHT COMMITTEE MEETING

Wednesday, July 21, 1999 7:30 p.m. Marist College, Poughkeepsie, NY

AGENDA

Welcome & Introduction

Bill McCabe, USEPA

Deputy Director, Superfund,

and HROC Chair

Recap of EPA Phase 2
Baseline Modeling Report

Doug Tomchuk, USEPA Remedial Project Manager

Hudson River PCBs

Project

Project Update

Bill McCabe

Questions & Answers

1-3

US ENVIRONMENTAL PROTECTION AGENCY COMMUNITY INTERACTION PROGRAM HUDSON RIVER PCBs OVERSIGHT COMMITTEE MEETING

NAME	ADDRESS	AFFILIATION/TELEPHONE
JACK CAUBFA	53 FAIRLAWN DA	MOHANKHUDSON
	LASTAM NY 1210	APPALACHIAN MIN
Kenneth M. Fish	GE Corp R&D POB 8	
	Schenectady NY 12308	GE
Andy Carlson	NYS-DOH	
17 thang Carrison	Albany	1045. DOH
Barbara	Ditches Co. EMC	Dotaless Co. EMC
Kendall	Dotains Co. EMC PO BOX 259 Mill brook, NY 12845	
Sarah Underhill	1150 Berne Rd	Ulster County
	Kerhonkson NY 12446	Friends of Clearwater
	POBX 365 17580	Taconie Press
Nancy Rehem	Stantsburghy	
	216 Stoge Rd,	SAR. CO. EMC
David alans	Chalton, NY 12019	

US ENVIRONMENTAL PROTECTION AGENCY COMMUNITY INTERACTION PROGRAM HUDSON RIVER PCBs OVERSIGHT COMMITTEE MEETING

NAME	ADDRESS	AFFILIATION/TELEPHONE
Rich Schiafo	9 Vassar St Poughkeepsie NY 1260, in HV	Senic Hudson (14)473-4440
Will Gendik	Box 132 - Glaverack, NY 13513	Princefon U. 512-851-7460
John F. Brown J.	\$038 Schenetz NY	GB Enpurte R&D 518 387 798>
Kathleen Donnelly, sn	139 S Milp RQ RHINEBECK NY	TRI STATE COALITION FOR RESPONSIBLE INVEST MENT 914 876-4178
Rae Ann O'Neill	P.O. BOX 311 Maryknoll, NY 10545-0311	Maryknoll Global Concerns
taity Cooke	OFRPA 5th floor AESOB Albany 12236	MX Comptaller's office
John Dergosits	NYSCC Zoo Swimen Bluz Albany NY 12201	NYS Cerel Corporation 578/471-5020
Mark Belien	Believe Communication POBOXAZZ Glens Falls NY	Representing 62
Joe Gardner	68 Carson Rd Ochmar, NY 12054	Mohawk Hudgan Chap. Appelachian Mt. Club.

US ENVIRONMENTAL PROTECTION AGENCY **COMMUNITY INTERACTION PROGRAM HUDSON RIVER PCBs OVERSIGHT COMMITTEE MEETING**

NAME	ADDRESS	AFFILIATION/TELEPHONE
John My LOD	POBOX 1169 Poug Weep Sie, NY 12607	9144522324
TRONK MADEUSU	PDI- 75-1) Towartill Ref. millbrook Mg 125-45	
Elizabeth Hidin	83 No. 6'way #3F White Plains NY 10603	914 428-2886
Andi Weiss Bartczak	Clearwater 112 Market St. PoughKeepsie 12601	914-454-7673 1191500 group
John Hisseld	l computer One & Albey NY 12205	Genel Electric
Bab Gibson	1 computer Dr. So Albany NY 12205	General Electric
Erik DuMont	199 Main St, Suite 319 White Plains NY 10606	Citizen's Lampuign for the Environment (914) 997-0946
B Bud	46 DOVE ST NY 12210-1909	512 463 8250
Mel Schweize	GE Corporate Envisor 1 compute Prine Su Albany, NY 12217	(518) 455-6648

US ENVIRONMENTAL PROTECTION AGENCY COMMUNITY INTERACTION PROGRAM HUDSON RIVER PCBs OVERSIGHT COMMITTEE MEETING

NAME	ADDRESS	AFFILIATION/TELEPHONE	
Swenturphy	5 Confine's Island Sougetics 12477	Ulster Co.Friends of Clear 246-0697 Stmurphyce Water. Het	·W

y 3-3

US ENVIRONMENTAL PROTECTION AGENCY COMMUNITY INTERACTION PROGRAM HUDSON RIVER PCBs OVERSIGHT COMMITTEE MEETING

NAME	ADDRESS	AFFILIATION/TELEPHONE
Mary Duffy	100 Pine obridge	Maryknoll 914 941 7575
William Ports	50 Wolf RQ Albany, NY 12303	NYSDEC 518-457-5637
WALT DEMICK	(1	"
Cerrge Holgs	50 W, High St, Bollston Sp. NY 120	Sara, Co., EMC 20 518-884-4778
EDWARD J. HAAS	PO BOX 88 RHINEBECK, NY 12572	914.876-6500
CHRIS BOWSER	112 MARKET ST.	CLEAR WATER
	POUGHKEEPSIE NY 12601	

Hudson River PCBs Site Reassessment RI/FS June 10, 1999

Milestone	Completed	To Public
PHASE 1 Report	V	Aug 1991
PHASE 2 Field Sampling Program - 1992 to 1994	✓	N/A
Database Report (DBR)	~	Nov 1995
Preliminary Model Calibration Report (PMCR)	√	Oct 1996
Data Evaluation & Interpretation Report (DEIR)	✓	Feb 1997
Low Resolution Sediment Coring Report (LRC)	~	Jul 1998
Human Health Risk Assessment Scope of Work	V	Jul 1998
CD-ROM Database Reissue	~	Jul 1998
Peer Review 1 - Modeling Approach - Begins	V	Jul 1998
Peer Review 1 Meeting	~	Sept 1998
Ecological Risk Assessment Scope of Work	~	Sept 1998
DBR, PMCR, DEIR Responsiveness Summary	V	Dec 1998
Peer Review 2 - DEIR & LRC - Begins	V	Jan 1999
LRC Responsiveness Summary	~	Feb 1999
Peer Review 2 Meeting	~	Mar 1999
Human Health Risk Assmt SOW Responsiveness Summary	V	Apr 1999
Ecological Risk Assmt SOW Responsiveness Summary	V	Apr 1999
Baseline Modeling Report (BMR)	V	May 1999
Human Health Risk Assessment (HHRA)		Aug 1999
Ecological Risk Assessment (ERA)		Aug 1999
BMR Responsiveness Summary		Jan 2000
Peer Review 3 - BMR - Begins		Jan 2000
Peer Review 3 Meeting		Mar 2000
HHRA and ERA Responsiveness Summaries		Mar 2000
Peer Review 4 - HHRA & ERA - Begins		Mar 2000
Peer Review 4 Meeting		May 2000
PHASE 3 Feasibility Study Scope of Work (FS SOW)		Sept 1998
FS SOW Responsiveness Summary	V	Jun 1999
FS Report	·	Dec 2000
PROPOSED PLAN		Dec 2000
RECORD OF DECISION (including Responsiveness Summary)		Jun 2001