Peer Review of Hudson River PCBs RI/FS Phase 2 Reports Preliminary Model Calibration Report

The following items are included in this package:

- ERG's letter outlining your responsibilities
- Preliminary list of panel members
- Preliminary agenda
- Logistical fact sheet
- EPA's charge to panel members
- ERG's consulting agreement
- ERG's invoice
- Conference call availability form
- Panel member biography guidelines
- Format guidelines for premeeting comments
- Address verification
- Preliminary Model Calibration Report, Volumes 1 and II
- Revised Scope of Work for Baseline Modeling Report [draft]



Eastern Research Group, Inc.

July 17, 1998

Environmental Science and Engineering

FIELD(1) FIELD(3) FIELD(4)

FIEED(5)

Economic and Regulatory Analysis

Dear FIELD(9):

Environmental and Occupational Health Services

Software Applications
Development

Pailution Prevention

Technology Evaluation

Environmental Sampling and Analysis

Technical Writing and

Conference Management

Graphic Design and Media Services

Public Relations and

Outreach

Training and Education

I am writing to confirm your participation as a panel member for the upcoming U.S. Environmental Protection Agency's (EPA's) "Peer Review of Hudson River PCBs Reassessment, RI/FS Phase 2 Reports, Preliminary Model Calibration Report." The meeting will be held on Wednesday and Thursday, September 9 and 10, 1998, at the Sheraton Saratoga Springs Hotel and Conference Center, Saratoga Springs, NY. Eastern Research Group, Inc. (ERG), under contract to EPA, is providing support for coordinating and conducting this meeting.

Please carefully review this letter and enclosures, which describe your responsibilities prior to, during, and after the meeting. This package includes the following:

- EPA's charge to reviewers
- Preliminary list of panel members
- Preliminary agenda
- Logistical fact sheet
- ERG's consulting agreement
- ERG's invoice form
- Conference call availability form
- Request for panel member biography
- Address verification form
- Format guidelines for premeeting comments
- Preliminary Model Calibration Report, Volumes I and II
- Supporting documentation (This consists of two reports: "Revised Scope of Work for Baseline Modeling Report [draft];" and "Responses to Selected Public Comments on the the Preliminary Model Calibration Report")

When making travel arrangements, please note that the meeting will run from approximately 8:00AM on Wednesday, September 9, until 4:30PM on Thursday, September 10, 1998. Please plan your travel so you can participate in the entire meeting.

Consultant Responsibilities

Review of Preliminary Model Calibration Report and Supporting Documentation

Equal Opportunity Employer
Printed on Recycled Paper

Review the document "Preliminary Model Calibration Report, Volumes I and II," and the supporting documentation, referring to EPA's charge to the panelists and ERG's instructions for the review.

orporate Headquarters: IIO Hartwell Avenue Lexington, MA 02173-3134 Phone 781-674-7272 Fax 781-674-2906 2200 Wilson Bollevard Suite 400 Arlington VA 22201-3324 Phone 703-841-0500 Fax 703-841-1440 14555 Avion Parkway Suite 200 Chantily, VA 20151-1102 Phone 703-633-1600 Fay 703-263-7280 900 Perimeter Park (Lab) P.O. Box 2010 Morrisville, NC 27560-2010 Phone 919-461-1419 Fax 919-461-1579 1600 Perimeter Park (Office) P.O. Box 2010 Morrisville, NC 27560-2010 Phone 919-461-1419 Fax 919-461-1418

Consultant Responsibilities (continued)

Conference Call

Participate in one or two premeeting conference calls to review your responsibilities, the charge to reviewers, format for premeeting comments, and other procedural details. Please see the enclosed conference call availability form and respond promptly.

Premeeting Comments

- Submit premeeting comments to ERG in hard copy and on a diskette created in WordPerfect 6.1 for IBM compatible computers no later than Friday, August 21, 1998. Please see the enclosed format guidelines for additional information.
- Review premeeting comments submitted by other panel members prior to the workshop. (ERG will compile all reviewers' premeeting comments and send them to each reviewer at least one week prior to the meeting.)

Onsite Participation

- Participate in a premeeting onsite discussion with ERG and EPA, if scheduled (usually the evening prior to the meeting to review the agenda, discussion format, and logistics).
- Participate in the entire 2-day meeting. Actively contribute your expertise during discussions.
- In accordance with the agenda, lead discussions of issues in your area of expertise, or as assigned by ERG and the chair. Verbally summarize comments in your area of expertise or as assigned.

Postmeeting

Participate in the preparation and review of the draft and final meeting summary outlining modifications that the panel believes should be implemented in the document "Preliminary Model Calibration Report, Volumes I and II."

Please make every effort to send us your premeeting comments by the deadline so that we may include your comments in the premeeting comment booklet that will be distributed to other panelists before the meeting. Your comments will be used by the chair to organize discussion topics. Please note that your consulting agreement states that reimbursement is contingent upon meeting the required deadlines, ERG and EPA acceptance of your deliverables, and participation in the entire meeting. In a few isolated cases, ERG has not been permitted to pay consultants because of failure to adhere to these conditions or to deliverable deadlines. Please contact us with any questions or concerns.

Consulting Fee

ERG will remit payment of \$xx/hr for 60 hours of work (36 hours premeeting, 20 hours on site, and 4 hours post meeting) for a total of \$xx for this assignment. In addition, you will be reimbursed for related travel, hotel, and meal costs. Please note that the enclosed invoice details the maximum per diem allowed. ERG cannot reimburse you for amounts in excess of the allowable per diem nor for items such as alcoholic beverages, laundry, movies, etc. RECEIPTS FOR ALL EXPENSES MUST ACCOMPANY YOUR INVOICE. ERG will remit payment within 8 to 10 weeks of receipt of the invoice.

Travel Arrangements

Please make your travel arrangements through ERG's travel agent, American Express Travel, to obtain the lowest priced fully refundable airline ticket. Call American Express Travel directly at 1-800-322-1013. They will arrange for you to fly to Albany Airport, Albany, NY, and will send you prepaid tickets via Federal Express. Please refer to Task #0089-02-012-001 when making travel arrangements and request a paper ticket, not an electronic ticket. In accordance with contractual regulations, ERG can authorize payment only for round-trip travel from your city of origin to Albany, NY. If you wish to make additional stops in your itinerary, you will be responsible for paying for that portion of the travel. If for some reason you are unable to make travel arrangements through American Express Travel, you must contact ERG prior to securing an airfare rate through another source. If you do not contact ERG before securing an airfare rate other than through American Express Travel, ERG will only be able to reimburse you for the rate offered by American Express Travel.

Hotel Accommodations

Please note that you are responsible for making your own hotel reservation and payment. ERG has arranged for a block of rooms to be held for meeting participants at the Sheraton Saratoga Springs Hotel and Conference Center, Saratoga Springs, NY, for Tuesday, September 8, and Wednesday, September 9, 1998. The group rate for single occupancy is \$104.00/night, plus 11% tax. Make your room reservation by calling the hotel directly at 518-584-4000 and referencing the "Hudson River PCB Reassessment Meeting" to ensure that you receive the special rate. Reservations must be made by Friday, August 14, 1998. After this date, reservations will be accepted on a space- and rate-available basis only. The enclosed logistical fact sheet contains directions and other details pertaining to the hotel and meeting site.

Deliverables and Deadlines

July 27, 1998 Signed consulting agreement, address verification form, and conference

call availability form due to ERG

July 28, 29, or 30, 1998 Participate in conference call

August 14, 1998 Cutoff date for making hotel reservations

August 21, 1998 Premeeting comments due to ERG

September 8, 1998 Premeeting discussion in Saratoga Springs, NY

September 9-10, 1998 Meeting in Saratoga Springs, NY

We look forward to working with you on this task. If you have any questions regarding the meeting, the schedule, or your responsibilities, please contact me at 781-674-7324 or Lauren Lariviere at 781-674-7250.

Sincerely,

Kate Schalk Conference Manager

Enclosures



Hudson River PCBs Site Modeling Approach Peer Review

Sheraton Saratoga Springs Hotel and Conference Center Saratoga Springs, NY September 9-10, 1998

Peer Reviewers

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Environmental Studies
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Peer Review of Hudson River PCBs RI/FS Phase 2 Reports Preliminary Model Calibration Report

Sheraton Saratoga Springs Hotel and Conference Center Saratoga Springs, NY September 9-10, 1998

Preliminary Agenda

Meeting Chair:

To be Determined

Meeting Facilitator:

Jan Connery, Eastern Research Group, Inc. (ERG)

WEDNESDAY, SEPTEMBER 9,1998

8:00AM Registration/Check-In

9:00AM Welcome Remarks

Jan Connery, ERG

9:10AM Overview and Background

Jan Connery, ERG

9:25AM Meeting Structure and Objectives

Jan Connery, ERG

9:45AM Charge to the Panel/Highlights of Premeeting Comments

Meeting Chair TBD

10:00AM BREAK

10:15AM Discussion on Issue #1: TBD

Discussion facilitated by Jan Connery and Meeting Chair

11:30AM Summary of Discussions on Issue #1

LUNCH



12:00NOON





Peer Review of Hudson River PCBs Preliminary Model Calibration Report

Sheraton Saratoga Springs Hotel and Conference Center Saratoga, Springs, NY September 9-10, 1998

Logistical Fact Sheet

Registration Information

Eastern Research Group, Inc.

110 Hartwell Avenue

Lexington, MA 02421-3136 781-674-7374

Hotel Arrangements

Sheraton Saratoga Springs Hotel and Conference Center

. 518-584-4000

Fax: 518-584-7430

A block of rooms is being held for workshop participants at the Sheraton Saratoga Springs Hotel and Conference Center for the nights of Tuesday and Wednesday, September 8 and 9, 1998. The group rate is \$104.00/night single occupancy, \$124.00/night double occupancy, plus 11% tax. All overnight room reservations must be guaranteed with a credit card. Please call the hotel directly and reference the "PCBs Workshop" to receive the special rate. Reservations must be made by Friday, August 14, 1998. After this date, reservations will be accepted on a space- and rate-available basis only. In order to receive a tax-free rate, government employees must show an exemption certificate.

Accessibility by Car

From Albany Airport:

Turn left out of airport parking lot onto Albany Shaker Road. Drive approximately 1½ miles to Interstate 87 (Adirondack Northway). Take I-87 North to Exit 15. Turn left off Exit 15. At the fifth traffic light, turn left onto Rock Street. At the stop sign, turn right onto Maple Avenue. The Sheraton parking lot is on the right.





Accessibility by Car (continued)

From the North:

Take I-87 South (Adirondack Northway) to Exit 15. Turn right at exit. At the fourth traffic light, turn left onto Rock Street. At the stop sign, turn right onto Maple Avenue. The Sheraton parking lot is on the right.

From the South:

Take Interstate 87 North (New York State Thruway) to Exit 24 at Albany. Follow I-87 North (Adirondack Northway) to Exit 15. Turn left off exit. Follow remainder of "From Albany Airport" directions.

From the East:

Take Massachusetts Turnpike West to New York Thruway. Take Exit B-1 (I-90 bypass) to I-787 North for approximately 6 miles to Route 7 East. Stay on Route 7 East for approximately 2 miles to I-87 North (Adirondack Northway). Stay on I-87 North for approximately 22 miles to Exit 15. Turn left off exit. Follow remainder of "From Albany Airport" directions.

From the West:

Take Interstate 90 East (New York State Thruway) to Exit 24. Take I-87 North (Adirondack Northway) to Exit 15. Turn left off exit. Fc!low remainder of "From Albany Airport" directions.

Airport Information

The Sheraton Saratoga Springs Hotel is located approximately 35 to 40 miles from the Albany Airport, Albany, NY.

Ground Transportation

Taxi:

Taxi service from Albany Airport is approximately \$48.

Van Transportation:

Super Shuttle is available to and from Sheraton Saratoga Springs Hotel. Fares are \$45 one way and must be reserved in advance by calling 518-793-7800. Discounts are available for parties of two or more. Please ask for details when making reservations.

Limousine Service:

Limousine service is available through Advantage Taxi and Limousine Service for \$99.00 one-way for a three passenger sedan and \$125.00 one-way for a six passenger limousine. Advance reservations are required and can be obtained by calling 518-433-0100.

Parking

Complimentary parking is available at the Sheraton Saratoga Springs Hotel.

Onsite Registration

Onsite registration will take place outside the meeting room on Wednesday, September 9, 1998, beginning at 8:00AM. Please stop by to pick up handout materials and/or sign up to make observer comments. Refer to the hotel's "Daily Events Board" for meeting room name and location. The meeting will begin at 9:00AM.

Peer Review of Hudson River PCBs RI/FS Phase 2 Reports Preliminary Model Calibration Report

Sheraton Saratoga Springs Hotel and Conference Center Saratoga Springs, NY September 9-10, 1998

PRELIMINARY CHARGE TO REVIEWERS

Members of this peer review will be tasked to determine whether the models being used to support the decision-making process for the Reassessment, and the assumptions therein, are appropriate. The peer reviewers will base their assessment on the review the Preliminary Model Calibration Report (PMCR), an updated Technical Scope of Work for the Baseline Modeling Report (Appendix B of the PMCR) and the responses to selected comments received from stakeholders during the public comment period on the PMCR.

In October 1996, EPA released the Preliminary Model Calibration Report (PMCR), which described the models, datasets and assumptions being used as part of the Hudson River PCB Reassessment RI/FS. The PMCR represents the status of the preliminary PCB modeling effort as of Fall 1995. Datasets, database corrections and other pertinent information which became available after October 1995 were not incorporated within the fate and transport modeling presented in the PMCR. The PMCR was an interim document prepared to describe work in progress and was not intended to be a conclusive report. In particular the HUDTOX model presented in the PMCR was not intended to be used as a predictive tool to assess remedial action scenarios. In addition, while time-varying mechanistic models of bioaccumulation will be used along with other models to predict fish body burdens, these models are not described in the PMCR.

The PMCR was not formally peer reviewed at the time of publication, but was distributed to interested parties who were invited to submit comments and questions. Written responses were made to all of these comments and questions. In addition, the work plan contained in Appendix B of the PMCR has been revised to reflect the ongoing work being conducted as part of the Baseline Modeling effort. Results from this effort will be presented in a Baseline Modeling Report that will be formally peer reviewed.





The peer reviewers are requested to determine whether the models being used to support the decision-making process for the Reassessment RI/FS, and the assumptions therein, are appropriate. The peer reviewers are not being asked whether they would conduct the work in the same manner, only whether the work being conducted will yield scientifically credible conclusions.

It is suggested that the reviewer first read the PMCR. The Responses to Comments provides information on the context of the PMCR within the overall modeling effort and additional details beyond the PMCR results. The current work plan as revised in June 1998 reflects the ongoing Baseline Modeling effort and revisions to some of the original modeling tasks proposed in Appendix B of the PMCR. In addition, the USEPA/TAMS Phase 2 database has been considerably revised. New datasets have been added and some earlier datasets have been extensively revised.

The peer reviewers are asked to comment on the following:

- A. Is EPA using appropriate models, datasets and assumptions on which to base a scientifically credible decision?
- B. Will the models, with the associated datasets and assumptions, be able to answer the following principal study questions as stated in the PMCR:
 - 1. When will PCB levels in the fish population recover to levels meeting human health and ecological risk criteria under No Action?
 - 2. Can remedies other than No Action significantly shorten the time required to achieve acceptable risk levels?
 - 3. Are there contaminated sediments now buried and effectively sequestered from the food chain which are likely to become "reactivated" following a major flood, resulting in an increase in contamination of the fish population?

C. Specific questions:

- 1. Are the modeling approaches suitable for developing quantitative relationships between external forcing functions (e.g., hydraulic flows, solids and PCB loads, sediment initial conditions, etc.) and PCB concentrations in the water column, sediments and fish? Are the models adequate for discriminating between water-related and sediment-related sources of PCBs?
- 2. Are the spatial and temporal scales of the modeling approaches adequate to answer the principal study questions? If not, what levels of spatial and temporal resolution are required to answer these questions? What supporting data are required for these spatial and temporal scales?
- 3. It is contemplated that PCB concentrations in fish will be estimated using several modeling approaches: an empirical probabilistic model derived from Hudson River data, a steady state model that takes into account mechanisms of bioaccumulation body burdens, and a time-varying mechanistic model (not

included in the PMCR). A bi-variate statistical model may also be used to provide insight into accumulations. This multi-model approach is being contemplated because of the uncertainties associated with any individual model. Is this a reasonable approach or should predictions be made using a single "best" model?

- 4. The results of the modeling effort will be used, in part, to support human and ecological risk assessments. In your judgment, will the models provide estimates adequate for this purpose?
- D. Are there any changes to the work effort outlined in the revised work plan that would significantly improve the outcome?
- E. Additional specific questions relating to the PMCR. (To be submitted prior to conference call)

Recommendations

Based on your reading and analysis of the information provided, please identify and submit an explanation of your overall recommendation for the modeling effort for the Hudson River PCB Reassessment RI/FS:

- 1. Acceptable as is
- 2. Acceptable with minor revision (as indicated)
- 3. Acceptable with major revision (as outlined)
- 4. Not acceptable (under any circumstance)

Please note, this is a preliminary charge to reviewers. Additional questions may be added to the "Specific Questions" section at a later date.

PANEL MEMBERS

CONFERENCE CALL AVAILABILITY

Prior to the meeting, we would like you to participate in a conference call to discuss the meeting agenda, the charge, format of premeeting comments, and other issues important to the success of the meeting.

Please check all the times you are available for conference calls. After we have received availability information from all of you, we will contact you with the day, time, and telephone number of the call.

Please check all available times for a conference call (Eastern Daylight Time).

	TUES. JULY 28	WED. JULY 29	THURS. JULY 30
9:30AM - 10:30AM			
10:30AM - 11:30AM			
11:30AM - 12:30PM			
12:30PM - 1:30PM			
1:30PM - 2:30PM			
2:30PM - 3:30PM			
3:30PM - 4:30PM			

If you are not available during ANY of these times, please list when you are available:

NAME:		

Please return this form with your consulting agreement or via fax by Monday, July 27 to Lauren Lariviere at 781-674-2906

If you have any questions, feel free to call Lauren at 781-674-7250.

TWO-PARAGRAPH PANEL MEMBER BIOGRAPHY GUIDELINES

Peer Review of Hudson River PCBs Reassessment RI/FS Phase 2 Reports Preliminary Model Calibration Report

Due Date: Friday, August 7, 1998

The following are guidelines and a sample for your two-paragraph biography. Please include the following information:

- Name
- Degrees
- Work Experience
- Current Work
- Committees, Papers, etc.

Submit a hard copy of your biography to us along with a diskette. Your biography will be included in the meeting materials provided to all attendees on site. The printed copy should be ready to be reproduced and on 8½ x 11-inch paper, with a ½-inch left-hand margin to allow for hole-punching. Electronic files can be submitted in Word Perfect 6.1 or in ASCII format. We will primarily use the electronic files in preparing the meeting handouts, but we also request a printed copy for the sake of comparison in the event that file conversion discrepancies occur.

SAMPLE BIOGRAPHY

[NAME]

[NAME] has a B.S. in Chemical Engineering from the University of Massachusetts and an M.S. in Chemical Engineering from the University of Cincinnati [DEGREES]. He/she has worked as a chemical engineer and Commissioned Officer in the U.S. Public Health Service. He/she has 27 years of research experience in wastewater treatment in the U.S. Environmental Protection Agency (EPA) and its predecessor organization [WORK EXPERIENCE].

[NAME] is currently employed by [ORGANIZATION] as a [TITLE]. He/she is working on the control of specific toxicants and toxicity in wastewater treatment. His/her branch is responsible for the development of the TRE methods for municipal treatment plants and for toxicant and toxicant treatability research [CURRENT WORK]. He/she has served on the New Jersey Task Force on Acid Rain and on committees for Standard Methods for the Examination of Water and Wastewater as well as being a National Science Foundation panelist [COMMITTEES, PAPERS, ETC.]

Please mail the printed copy and diskette of your two-paragraph biography by August 7 to Lauren Lariviere, Eastern Research Group, 110 Hartwell Avenue, Lexington, MA 02421-3136. If you have any questions, please contact Lauren at 781-674-7250 or e-mail to llarivie@erg.com

DUE DATE and FORMAT GUIDELINES for PREMEETING COMMENTS

Peer Review of Hudson River PCBs Reassessment RI/FS Phase 2 Reports **Preliminary Model Calibration Report**

Friday, August 21, 1998 Due Date:

Approximately ten days before the meeting, ERG will mail peer reviewers a premeeting comment booklet for their review. For this booklet to be complete, ERG must receive your comments in advance. Additionally, the meeting chair and ERG need your comments to prepare for opening presentations and to organize issues for discussion. If you send a fax to meet the deadline, you must also express mail a hard copy and a copy on diskette to ERG.

Please send reproducible hard copy to:

Eastern Research Group, Inc. (ERG) 110 Hartwell Avenue Lexington, MA 02421-3136 Attn: Lauren Lariviere E-mail: llarivie@erg.com

Thank you for your cooperation. Please feel free to contact Lauren Lariviere at 781-674-7250 with any questions or concerns.

Format Guidelines:

Your comments will be included in the comment booklet as received. Please prepare your comments referring to the charge to reviewers prepared by EPA and format them as follows:

TYPE SIZE:

11 point

PAPER SIZE: 8 1/2" x 11"

SPACING:

1.5 line spacing

MARGINS:

1 1/2" left-hand margin (for binding purposes)

1" right-hand, top, and bottom margins

- Please use a header with your name in the upper right-hand corner of each page of your comments.
- Organize your comments by section as outlined in EPA's charge questions.
- Remember to spell out acronyms when first used.
- Avoid incomplete sentences, abbreviations, and terms that might confuse the reader.
- If illustrations or tables are included, be sure that they are suitable for reproduction.
- Submit comments on diskette created in WordPerfect 6.1 for IBM compatible computers.
- Attach any relevant articles or research results you feel should be considered in revising the report.

U.S. Environmental Protection Agency

Peer Review of Hudson River PCBs Reassessment RI/FS Phase 2 Reports Preliminary Model Calibration Report

September 9-10, 1998

ADDRESS VERIFICATION FORM

Please take a moment to verify that the following information is correct. Indicate any changes that should be made and complete any blank lines. This information will be used to confirm the information we have at present and to create the final list of peer reviewers, which will be distributed to all who attend the meeting.

Please circle one:

Dr./Mr./Ms.

Name:

FIELD(1)

Title:

FIELD(2)

Organization/Affiliation:

FIELD(3)

Address:

FIELD(4)

City/State/Zip:

FIELD(5)

Telephone Number:

FIELD(6)

Fax Number:

FIELD(7)

E-mail Address:

EIELD(8)

Fax this form by Monday, July 27, to Lauren Lariviere at 781-674-2906.