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GAO

United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-247584

March 10, 1992

The Honorable Gerald B. Solomon
House of Representatives

Dear Mr. Solomon:

This letter responds to your request of September 11, 1991, about the Environmental Protection Agency's (EPA) decision-making process on the cleanup of polychlorinated biphenyls (PCBs) in the Hudson River. It summarizes the information that we presented to your staff in a briefing on January 9, 1992, and includes additional information requested by your staff on (1) EPA's plans to evaluate the effect of permitted releases of PCBs on the lower portion of the Hudson River and (2) the federal permits required for dredging PCBs from the Hudson River and selecting a hazardous waste disposal site to contain the PCBs.

Your letter expressed concern that EPA's study of PCB contamination in the Hudson River was flawed because it relied on old data and ignored the hazards that dredging the river could cause. These concerns led to your assessment that EPA's study was biased in favor of one cleanup option--dredging PCB-contaminated soil from the Hudson River.

We found that in December 1989 EPA decided to reassess its 1984 decision not to address PCB-contaminated sediments in the Hudson River. The agency's decision was based on a number of factors: (1) the 1986 Superfund Amendments and Reauthorization Act's preference for permanent remedies at sites, (2) EPA's policy to review at least every 5 years those Superfund sites that contain potentially hazardous contaminants, (3) technological advances in removing and treating PCB-contaminated sediments, and (4) a request from the New York State Department of Environmental Conservation (NYSDEC) to reassess EPA's earlier "no-action" decision.

Before selecting a remedy for a Superfund site, EPA does a two-phase remedial investigation and feasibility study. However, because of the size and complexity of the

potential cleanup at the Hudson River Superfund site, EPA split its reassessment into three phases.

In August 1991 the agency completed the first phase of its reassessment. The intent of the first phase was to summarize and evaluate available data and to help identify data gaps that could be filled in the second phase of the reassessment. The first phase was not meant to propose the selection of any remedies. EPA officials, including the project manager for the Hudson River site, said that EPA followed normal risk-assessment procedures in the first phase of its study. In addition, EPA's Inspector General concluded in December 1991 that the first phase was done in accordance with agency guidance.

EPA is currently preparing a work plan for the second phase of the study, which will include additional field samples, such as PCB concentrations in Hudson River fish, and further evaluation of sample data.

EPA will not select a remedy until after the third phase is completed in mid-1993. This phase will involve consideration of the advantages and disadvantages of various remedial actions, including a no-action decision, bioremediation, covering contaminants with a soil "cap," or dredging. (As requested by your staff, we have enclosed a chronology of events at the Hudson River PCB site.)

EPA's reassessment of the Hudson River Superfund site is still in an early stage, since the agency has completed only one of three phases of its study. The agency will not select a remedy for the Hudson River site until mid-1993 at the earliest.

In response to the questions raised by your staff, we found that in the second phase of its reassessment, while EPA plans to review the effects of the total amounts of PCB concentrations on the lower portion of the Hudson River, the agency does not intend to single out the effects of PCBs released from permitted facilities. Additionally, according to an EPA official, three federal permits are required for dredging and for siting hazardous waste. Under the Toxic Substances Control Act, EPA requires a permit to authorize the use of a disposal site for PCBs. In addition, two U.S. Corps of Engineer permits are required by section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899 to authorize the discharge of dredged material into U.S. waters. NYSDEC had

not submitted applications for any of these permits at the time of our inquiry.

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To obtain information on the issues you raised, we conducted phone interviews with a number of individuals, including EPA officials such as the site's remedial project manager, the Deputy Commissioner of NYSDEC, and representatives of local community groups recommended by your staff. Additionally, we examined a number of documents, including EPA's August 1991 report on its initial review of PCB contamination in the Hudson River, and various correspondence between officials from EPA, NYSDEC, and your staff.

We hope that this information on EPA's remedy selection process on the Hudson River Superfund site will assist you in your efforts to ensure that correct decisions are made on the cleanup of PCBs in the Hudson River. If you or your staff have any further questions about this matter, please contact me on (202) 275-6111 or Jim Donaghy, Assistant Director for Superfund, at (202) 252-0600.

Sincerely yours,

Richard L. Hembra
Director, Environmental Protection
Issues

Enclosure

HUDSON RIVER PCB PROJECT CHRONOLOGY OF EVENTS

1947-77 • General Electric (G.E.) discharged over 500,000 pounds of PCBs to the Hudson River from factories in Fort Edward and Hudson Falls. Before 1973, much of the PCBs settled out upstream of the Fort Edward Dam.

1973 • Fort Edward Dam was demolished, allowing for the transport of a large amount of PCB-contaminated sediments downstream. Sediment surveys conducted later revealed that the most extensive PCB contamination in the river was located in 40 PCB "hot spots" between Fort Edward and Albany. In addition, because the water level dropped after the dam was removed, five "remnant deposits" were exposed in what had been the dam pool behind the Fort Edward Dam.

1976 • The New York State Department of Environmental Conservation (NYSDEC) brought suit against G.E. As a result, G.E. terminated its discharges of PCBs by 1977. In addition, the settlement provided for a $7 million program to investigate PCBs and develop methods of reducing or removing the threat of PCB contamination.

1977-78 • NYSDEC began studies on reducing PCB contamination in the river.

1980 • Section 116 of the Clean Water Act (CWA) was passed, which authorized up to $20 million for the Hudson River PCB Reclamation Demonstration Project. The project was intended to determine (1) the feasibility of storing dredged toxic materials in secure landfills and (2) the improvement that dredging could produce in the rate of recovery of a contaminated national waterway. Subsequent lawsuits prevented NYSDEC from undertaking this project.

1983 • October 7. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) draft remedial investigation/feasibility study (RI/FS) was released for public comment. In this document, EPA made a preliminary decision to take no action on in-river sediments. However, the remnant deposits were to be remediated by in-place containment (i.e., covering them with 2 feet of soil).

- October 27. EPA issued a notice to G.E. that it was a responsible and liable party under CERCLA and that EPA would conduct a study and implement any selected remedial alternatives unless the company agreed to do so.

1984

- April. EPA issued the final RI/FS on the CERCLA remedial action for the site.
- September 21. The Hudson River PCB site was placed on the National Priorities List.
- September 25. EPA formally selected the remedial alternative preferred in the final RI/FS. EPA said that in-place containment of the remnant deposits was cost-effective, but that a technically feasible, cost-effective remedial action for the in-river sediment contamination was not available. However, EPA provided for a future reassessment of the no-action alternative for the in-river sediments.

1985

- NYSDEC continued to monitor PCB contamination in the Hudson River, including sediment sampling programs.

1986-88

- NYSDEC studied the environmental impacts of dredging a limited number of highly contaminated sites and considered different locations for siting a facility to hold the dredged material.

1989

- July 28. NYSDEC requested that EPA reexamine its no-action decision for in-river sediments presented in the CERCLA Record of Decision.
- September 27. After several months of negotiation and discussion, EPA issued an administrative order to G.E. to design and install the access roads needed to cover the remnant deposits.
- October 13. G.E. notified EPA of its intention to comply with the administrative order to construct access roads to the remnant deposits; surveying and clearing for the roads were initiated.
- December 19. The EPA Regional Administrator sent a letter to the NYSDEC Deputy Commissioner, agreeing to reconsider the no-action decision for in-river sediments and stressing the need for interim remediation of the remnant deposits.

- December 20. EPA announced its intention to reassess its original RI/FS to address the PCB-contaminated river sediments.

1990

- March 7. EPA sent a proposed consent decree to G.E. which called for it to implement EPA's approved remedial action for the remnant deposits (i.e., covering with soil).

- March 12. EPA and NYSDEC met with G.E. to discuss the scope of the Reassessment RI/FS and the possibility of G.E. conducting the study. G.E. made a presentation on the research it planned to conduct with respect to the biological degradation of PCBs in the sediments.

- April 6. The Regional Administrator approved the consent decree, which G.E. had signed on April 2, for the remnant deposits remediation. The Department of Justice signed the consent decree on May 11.

- June 4. EPA notified G.E. that EPA intended to conduct the Reassessment RI/FS.

- September 28. EPA gave final approval to G.E. for remediation activities at the remnant deposits.

- December. Remediation of Remnant Deposit Sites 2, 3, and 5 virtually completed. Remediation activities still ongoing at Site 4.

- December 13. EPA held a public meeting in Saratoga Springs, New York, to present the Scope of Work and the Community Interaction Program for the Reassessment RI/FS.

- December 17. EPA and NYSDEC technical staffs met with G.E. staff to discuss G.E.'s bioremediation research efforts.

1991

- May 14. EPA granted approval to G.E. to conduct research and development on biological degradation of PCBs in Hudson River sediments.

- August 23. EPA released its report on the first phase of its reassessment RI/FS.

- October 25. The comment period for the first phase of EPA's Reassessment RI/FS ended.

Source: Adapted from EPA's Hudson River PCB Project chronology.

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