UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the Hudson River PCBs Superfund Site

FROM: Bruce K. Means, Chair
National Remedy Review Board

TO: Richard L. Caspe, Director
Emergency and Remedial Response Division
EPA Region 2

Purpose

The National Remedy Review Board (NRRB) has completed its review of the proposed Superfund cleanup action for the Hudson River PCBs Site in New York State. This memorandum documents the NRRB's advisory recommendations.

Context for NRRB Review

The Administrator announced the NRRB as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The NRRB furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The NRRB review evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions, and any other relevant factors.

Generally, the NRRB makes "advisory recommendations" to the appropriate regional decision maker. The region will then include these recommendations in the Administrative

Record for the site before it issues the proposed response action for public comment. While the region is expected to give the board's recommendations substantial weight, other important factors, such as subsequent public comment or technical analyses of response options, may influence the final regional decision. The board expects the regional decision maker to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. It is important to remember that the NRRB does not change the Agency's current delegations or alter in any way the public's role in site decisions.

Overview of the Proposed Action

The Hudson River PCBs site extends nearly 200 miles from Hudson Falls, New York, to the Battery in New York City. The site review package evaluated by the board addresses PCB contamination in the upper (or northernmost) 40 miles of the river, designated as the Upper Hudson. For purposes of the identification and evaluation of remedial alternatives, the Upper Hudson has been further divided into three river sections. The PCB contamination in the Upper Hudson is due primarily to the release of PCBs from two General Electric (GE) capacitor plants in Fort Edward and Hudson Falls. Source control actions at these facilities and, in particular, the GE Hudson Falls plant are being addressed separately. One of the primary remedial goals is to reduce the concentrations of PCBs in fish to levels which are protective for human consumption and ecological receptors. The preferred remedy proposed by the region includes targeted dredging of PCB-contaminated sediments in the Upper Hudson (along with the off-site disposal of dredged sediments) and restoration of the affected areas. Monitored natural attenuation (MNA) is also a component of the preferred remedy, and institutional controls (such as fish consumption advisories) will be required until remedial goals are achieved.

NRRB Advisory Recommendations

The NRRB reviewed the informational package for this proposal and discussed related issues with EPA representatives Richard Caspe, Alison Hess and Doug Tomchuk on November 15 and 16, 2000. The board discussed related issues with State of New York representative Michael O'Toole, and Federal Natural Resource Trustee Agency representatives Carol-Ann Manen (US National Oceanic and Atmospheric Administration (NOAA)), Lisa Rosman (NOAA), and Kathryn Jahn (US Fish and Wildlife Service) on November 15, 2000. Based on this review and discussion the board offers the following comments:

- The board recognizes that successful implementation of the remedy in the Upper Hudson is dependent upon additional upstream source control actions at the GE facilities and, in particular, the anticipated action at the GE Hudson Falls plant. The board supports source control actions at these facilities, as well as in the river sediments themselves, to reduce the inflow of PCBs into the Hudson and their transport down river.

- The board notes that the alternatives evaluation presented is based largely on human health concerns. Since the river is also a valuable ecological resource, the board recommends that the decision documents more fully explain the ecological benefits (including any accelerated recovery) achieved by the various alternatives (in particular, the nature of any added ecological benefits associated with the more aggressive remedial approaches (e.g., REM 0/0/3)).

- The package is unclear regarding how the actions proposed for the first 40-mile reach of the Upper Hudson are expected to impact the rest of the NPL site (i.e., the 160 river miles below the Federal Dam at Troy, NY (Lower Hudson)). The board recommends that the region clearly describe in the site decision documents the estimated benefits of the alternative actions to the Lower Hudson (e.g., explain how reducing mass loadings to the Lower Hudson will affect human health and/or ecological risks) since these estimates will help to more accurately characterize the cost effectiveness of any proposed action.

- As presented, the selected PRG for fish tissue for human consumption (i.e., 0.05 ppm) would not be met in Section 1 or 2 of the Upper Hudson under any of the identified alternatives within the modeled time frame extending to 2067. The board recommends that the region address how, where and when this PRG (or alternate goal(s)) would be met by the preferred alternative.

- The board notes that a significant portion (i.e., more than two-thirds) of the cost of the preferred remedy is for off-site transportation and disposal. The board also realizes that there is strong public opposition to siting of a disposal facility in the Upper Hudson area and, for this reason, the option of a local disposal site was eliminated. However, given the potential for cost savings, the board encourages the region to continue to investigate various methods to reduce transportation and disposal costs, including alternative (i.e., more local or regional) disposal sites, and waste volume or toxicity reduction pretreatment options.

- The board notes that certain *ex situ* treatment alternatives were identified as cost effective but not carried through as a component of the REM 0/0/3 or REM 3/10/select alternatives. The board recommends that those treatment options (e.g., thermal desorption) identified as feasible be further evaluated during design as a means to reduce the cost and volume of sediment requiring off-site disposal.

- The board notes that the placement of one foot of clean backfill in dredged areas contributes approximately 10% to the cost of the preferred alternative. The region should more clearly explain in site decision documents the need for the backfill (e.g., bank or riverbed stabilization, isolation of residual contamination, providing substrate for ecological recovery, etc.).

- The preferred remedy (REM 3/10/select) removes three hot spots in River Section 3 for approximately $40M more than the MNA alternative for this same river section (i.e., 3/10/MNA). The package is not clear as to the relative benefits of this selective hot spot removal as compared to the use of MNA for this section of the river. For example, the modeling does not predict that a significant river system-wide risk reduction will be achieved by this selective removal (although there may be important local benefits, such as habitat restoration, or control of highly unstable contaminated sediment sources). The region should clarify in the site decision documents the benefits of the River Section 3 component of the preferred alternative.

- All remedial options rely on monitored natural attenuation (i.e., natural recovery) to help achieve target fish tissue concentrations. However, the package is unclear about the importance of the various MNA mechanisms identified. The board recommends that the

region clarify in the decision documents the more significant MNA processes and how they are expected to contribute to achieving these fish tissue concentration goals.

- Currently, areas targeted for remediation are identified primarily based on engineering criteria. The board notes that especially sensitive ecological habitats in the Upper Hudson may be impacted by PCB contamination that have not yet been identified. The board recommends that for the preferred alternative (i.e., REM 3/10/select), the region consider including among these engineering-based criteria, factors that could recognize especially sensitive or unique habitats. For example, in certain instances, such factors might suggest extending the scope of the action where it is practicable to do so to include otherwise excluded but especially important or productive habitat areas.

The NRRB appreciates the region's efforts to work closely with the state, the federal trustee agencies, the PRP, and the numerous community groups at this site. We encourage Region 2 management and staff to work with their regional NRRB representative and the Region 2/6 Accelerated Response Center in the Office of Emergency and Remedial Response to discuss any appropriate follow-up actions.

Thank you for your support and the support of your staff in preparing for this review. Please give me a call at 703-603-8815 should you have any questions.

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