



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Memorandum

Date: December 8, 2000

From: Alison A. Hess, C.P.G. *Alison Hess*
Project Manager, Hudson River PCBs Site

To: File

Re: Avid Recreator Scenario

This memorandum documents the basis for USEPA's risk-management decision not to include in the Hudson River PCBs Reassessment Feasibility Study a Remedial Action Objective (RAO) for sediment based on the avid recreator scenario.

The cancer risks and non-cancer health hazards for the RME (non-avid) recreator scenario are below levels of concern. For the RME scenario, avid recreator exposure to sediment yielded a cancer risk of 9×10^{-6} (9 in one million) and a non-cancer Hazard Index (HI) of 0.3. As a sensitivity analysis, a "more than RME" avid recreator was evaluated using exposure to nearshore sediments with localized above-average PCB concentrations, which yielded a cancer risk of 1.1×10^{-4} (one in 10,000) and an HI of 1.7 (see, Revised Human Health Risk Assessment, USEPA, 2000).

USEPA determined that it would not develop an RAO for sediment based on the "more than RME" avid recreator exposure for the following two main reasons:

- 1) In the "more than RME" avid recreator scenario, the cancer risks and non-cancer health hazards were calculated based on a hypothetical high exposure frequency (i.e., 104 days per year) that is not based on site-specific data relating to recreator exposure, which are unavailable for the Upper Hudson River. In addition, the exposure point concentrations (EPCs) for PCBs in sediment are derived from nearshore sediment samples reported in the Low Resolution Sediment Coring Report (LRC, USEPA, 1998), with a 15-year half life. Because the focus of the LRC was on PCB hot spots, the sediment EPCs used in the cancer risk and non-cancer health hazard calculations are biased towards high PCB concentrations. These hot spot areas are not necessarily representative of areas where an avid recreator may be exposed to PCB-contaminated sediment.
- 2) The "more than RME" avid recreator scenario yielded cancer risks that are above the 10^{-6} to 10^{-4} risk range for cancer effects and the HI of 1 for non-cancer effects that are identified in Agency policy and guidance for acceptable cancer risks and non-cancer health hazards. However, the RME avid recreator scenario yielded cancer risks that are

within the 10^{-6} to 10^{-4} risk range for cancer effects and below the HI of 1 for non-cancer effects. Thus, the RME risks and hazards were determined to be acceptable.

In light of the "more than RME" assumptions used in the calculations and the resulting levels, which are at (for cancer risk) or only slightly above (for non-cancer health hazards) USEPA's acceptable levels, the Agency determined that it would not develop an RAO for sediment based on the avid recreator scenario. USEPA recognizes that the remedial alternatives that reduce PCB concentrations in fish in order to meet the RAOs for consumption of fish by humans and ecological receptors will address the nearshore sediments considered in the "more than RME" avid recreator scenario.

USEPA consulted with the New York State Department of Conservation (Bill Ports) and the New York State Department of Health (Bob Montione, Lloyd Wilson) in making this determination.