

theory). These guidelines represent a range of PCB concentrations from approximately .03 ppm to 5.7 ppm that could result in adverse effects to ecological receptors. EPA's SQG approach, which incorporates site specific inputs into the calculation, results in a level of .08 ppm. (See EPA's February 2000 Memorandum, Attachment B hereto).

In order to protect against exposure to humans, EPA also had to consider that certain areas of the 1 ½ Mile Reach as subject to residential exposures. The Consent Decree established a performance standard of 2 ppm for residential exposures and provides that this 2 ppm standard meets the protectiveness goals in the NCP for both cancer and non-cancer effects. The risk justification and calculations associated with this level can be found in the August 4, 1999 risk justification memorandum found in Appendix D to the Consent Decree (Attachment A hereto).

Therefore, EPA determined that a cleanup goal below 2 ppm, and approaching .08 ppm, would be appropriate for protecting against both adverse ecological and human health effects. A level of 1 ppm (as opposed to a lower guideline value) was used in the design and evaluation of EE/CA alternatives in recognition of the fact that, even using 1 ppm, the entire 1 ½ Mile Reach would be excavated to depths of at least 2 feet and backfilled with at least 2 feet of clean material, effectively reducing exposure to only those levels that can be detected in the clean backfill (estimated at .075 ppm for analysis at a fixed off-site laboratory). Even should mixing of clean backfill and residual sediments (generally less than 1 ppm) occur, the resulting concentrations would remain well below 1 ppm.

EPA believes that the utilization of the 1 ppm action level, coupled with the replacement of contaminated sediments with clean (non-detect PCB levels) backfill material, will result in PCB levels that are protective of humans, aquatic life, piscivorous birds, and mammals. In addition, in the long term, EPA also believes this action level to be an important step in reducing the PCB concentration in fish and contribute to the overall site-wide strategy of reducing human exposure to PCBs from fish consumption.

PCB contamination shall be removed based on the 95% Upper Confidence Limit (UCL) of the mean PCB concentrations in the sediments and bank soils, except for riverbanks below 3-feet on residential properties, which will be removed based upon an average concentration and a not-to-exceed limit. The 95% UCL was calculated in accordance with the procedures outlined in *Supplemental Guidance to RAGS: Calculating the Concentration Term* (99-0003). Use of the 95% UCL is based on the goal of providing a reasonable level of assurance that material exceeding applicable standards has been removed where data tend to be variable in space and time.

#### **Riverbank and Sediment Appendix IX Cleanup Criteria**

In addition to ecological risks and human health risks from fish consumption calculated using PCB sampling results, risks posed by Appendix IX compounds were evaluated. The Consent Decree sets forth an agreed upon procedure GE must follow for evaluating and removing

Site: GE-004  
Break: 2.9  
Other: 9483

**United States Environmental Protection Agency**  
New England  
Office of Site Remediation and Restoration  
One Congress Street, Suite 1100, Boston, Massachusetts 02114-2023

**Enforcement-Sensitive Information Attached**

**Memorandum**

**Date:** November 21, 2000

**Subject:** Request for Removal Action Housatonic River 1 ½-Mile Reach at the GE-Pittsfield/Housatonic River Site, Pittsfield, Massachusetts—**Action Memorandum and Exemption from the Statutory \$2,000,000 and 12-Month Limits on Removal Actions**

**From:** Chester Janowski, Remedial Project Manager *CJ*  
Office of Site Remediation and Restoration

**Through:** Patricia L. Meaney, Director *plm*  
Office of Site Remediation and Restoration

**To:** Mindy S. Lubber  
Regional Administrator

**I. Purpose**

The purpose of this Action Memorandum is to request and document approval for the proposed removal action described herein for a 1 ½-mile portion of the Housatonic River at the GE-Pittsfield/Housatonic River Site, Pittsfield, Massachusetts. The proposed removal action will mitigate the human health and environmental threats posed by the existing levels of polychlorinated biphenyls (“PCBs”) and other hazardous substances in this 1 ½ mile portion of the river. This Action Memorandum also requests and documents the approval of a “consistency” exemption from the \$2 million and 12-month statutory limits for removal actions under the National Contingency Plan.

This Action Memorandum concerns the 1 ½ mile section of the East Branch of the Housatonic River and its riverbanks from Lyman Street, Pittsfield, Massachusetts to the confluence with the West Branch of the Housatonic River and is referred to in this Memorandum as the “1 ½ Mile Reach.” The 1 ½ Mile Reach does not include the actual/potential lawns and other non-riverbank portions of the floodplain properties adjacent to this Reach. As discussed below, EPA and GE will jointly finance, and EPA will perform, the required removal action activities for the sediments and riverbanks in the 1 ½ Mile Reach. GE will conduct the required removal actions on the non-bank portions of the properties adjacent to the 1 ½ Mile Reach.

9483