



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

MAR 21 2002

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the Semet Residue Ponds Sub-Site of the Onondaga Lake 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 state-lead cleanup action to address the Semet Residue Ponds sub-site of the Onondaga Lake Superfund Site in Onondaga County, New York. 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.

Deliberative - Do Not Quote Or Cite - Deliberative

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, typically 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

In 1994, Onondaga Lake and those upland areas which contribute or have contributed contamination to the lake system were added to the EPA's National Priorities List (NPL). The Semet Residue Ponds contribute such contamination and, therefore, are considered a "sub-site" of the Onondaga Lake NPL Site.

The Semet Residue Ponds Site is located in the Village of Solvay, in an industrial area approximately 400 feet from the southern shore of Onondaga Lake. The site includes five irregularly shaped man-made ponds used from 1917 to 1970 for the disposal of waste material (generated during the production of benzene, toluene, and xylene) and two small areas bordering the site that were built to contain leakage from the ponds. The ponds cover approximately 11 acres, have an estimated average depth of 20 feet, and contain approximately 80 million gallons of waste material. Based on monitoring well data, there is a plume of contaminated ground water that originates at the site and migrates toward Onondaga Lake and Tributary 5A (a small drainage way which flows along the south and west edge of the site).

The principal components of the preferred remedy include the excavation of the Semet Pond residue and on-site processing of the residue into benzene, light oil, and a soft tar product (RT-12) to be used in the manufacture of driveway sealer at an off-site location. To address the groundwater contamination, the remedy includes the installation of a shallow groundwater collection trench to prevent groundwater discharges to Tributary 5A, and a barrier wall, collection trench, and groundwater extraction wells to prevent groundwater discharges to Onondaga Lake. Ground water collected by both systems would be treated at a newly constructed on-site facility.

NRRB Advisory Recommendations

The NRRB reviewed the informational packages supporting this proposal on March 5, 2002, and discussed related issues with state representatives Tracy A. Smith, Donald J. Hesler, P. David Smith, and Sal Ervolina (Division of Environmental Remediation), and Carol Conyers (Division of Environmental Enforcement), and EPA representatives Robert Nunes (Project Manager), Joel Singerman (Central New York Remediation Section Chief), and George Shanahan (Superfund Assistant Regional Counsel). Based on this review and discussion, the board offers the following comments:

Deliberative - Do Not Quote Or Cite - Deliberative

- As discussed above, the state's proposed remedy includes two major components that together address both the Semet Residue Ponds (contents and residuals) and their associated contaminated ground water. Although this proposal was presented as a final action, the board notes that the proposed remedy appears to be a source control action designed to respond to the acute risks described in the package rather than longer-term or chronic health and environmental threats. One component of the preferred action (Alternative SEM-2) would remove principle threat waste from the environment and recycle it; but the state does not describe in detail how any residuals (non-recyclable contaminated media) would be managed. The second component (Alternative GW-3) would address highly-contaminated ground water through containment rather than active restoration to achieve cleanup standards. Consequently, the board believes that if these actions are selected as a "final" remedy for the site, significant questions remain about the actions and their consistency with Superfund guidance and the NCP.

More specifically, the board notes that the site review package contained very little information relating to chronic risks to human health or environmental receptors (e.g., fish) associated with the waste ponds and the underlying contaminated ground water. However, the numerical cleanup goals presented in the package, in fact, relate to chronic risks. The package also did not present a clear risk-based rationale for the need to prevent contaminant migration into Onondaga Lake. The board recommends that the decision documents further describe the acute and chronic risks posed by the site (including any threats to the lake), the reduction in risk which is expected to result from implementation of the remedy, and how the actions contribute to achieving any numerical cleanup goals. In addition, the decision documents should clarify how the proposed actions for this sub-site contribute to and are consistent with the area-wide remediation strategy for the Onondaga Lake Superfund Site.

- The state indicates that one remedial action objective (RAO) for this cleanup plan is to restore, to the extent practicable, groundwater quality to levels which meet state and federal drinking water standards. However, none of the groundwater alternatives include extraction strategies designed to meet this RAO. The board notes that the groundwater alternatives appear to be designed only for containment of groundwater contamination that is currently migrating into the lake and Tributary 5A. For these reasons, and for those identified in the next comment below, the board recommends that the state either delete this "restoration" RAO for the action (and follow up with appropriate analysis of restoration alternatives in a subsequent action) or demonstrate how restoration will be achieved by the current proposed remedy.
- The package notes that the preferred groundwater alternative (Alternative GW-3) is not expected to attain MCLs and would result in the need to waive Applicable or Relevant and Appropriate Requirements (ARARs) for certain areas of the site. Based on the package and presentation, the board believes there is not sufficient justification at this time to support an ARAR waiver based on technical impracticability (TI) consistent with EPA guidance (OSWER Directive 9234.2-25, Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration, September 1993). The board recommends that the state phase groundwater cleanup actions for this sub-site, implementing this action as an interim source control and containment remedy for ground water. As indicated in the guidance, generally, it is most appropriate to consider

Deliberative - Do Not Quote Or Cite - Deliberative

the need for an ARAR waiver based on technical impracticability only after appropriate source control measures have been implemented and their impact on groundwater contamination evaluated. Following such measures, and based on the new information gathered, the state might then consider the feasibility of remedial alternatives designed to restore ground water to state and federal drinking water standards.

- The information package presented to the board did not identify the remedy for the ponds' residual organics (i.e., pond contents that cannot be processed for recycling), nor did the document describe the decision logic to be employed to select an appropriate remedy for these residuals (e.g., capping, removal, treatment, no action, etc.). In addition, the cost information provided to the board did not include costs for addressing these residuals. The board recommends that the state either describe in more detail how the residual material will be addressed, including an evaluation of the associated costs, or select a remedy for this residual material as part of a subsequent operable unit.
- The package presents cleanup levels based on the state's Technical and Administrative Guidance Memorandum No. 94-HWR-4046 (or TAGMs) for soils (viewed as "To-Be-Considered" criteria for the site). The decision document should clarify whether (and how) the TAGMs will be used to identify the residual waste to be addressed after completion of the beneficial reuse (or incineration) of materials from the ponds.
- The board notes that there may be some legal issues related to this state enforcement-lead action (e.g., ARARs waivers, the need to obtain permits), and encourages the region and state to address them in the remedy selection decision documents.

The NRRB appreciates state and regional efforts in working together with responsible parties and 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 followup action.

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

cc: M. L. Horinko (OSWER)
 M. Shapiro (OSWER)
 J. Denit (OSWER)
 E. Davies (OERR)
 L. Reed (OERR)
 B. Breen (OSRE)
 J. Woolford (FFRRO)
 C. Hooks (FFEO)
 R. Hall (OSW)
 OERR Regional Center Directors
 Robert Nunes (EPA Region 2)
 Tracy Smith (NYSDEC)

Deliberative - Do Not Quote Or Cite - Deliberative