



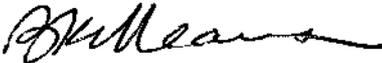
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 18 2000

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the St. Louis FUSRAP North County Superfund Sites

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

TO: Michael J. Sanderson, Director
Superfund Division
EPA Region 7

Purpose

The National Remedy Review Board (NRRB) has completed its review of the proposed remedial action for the St. Louis FUSRAP (Formerly Utilized Sites Remedial Action Project) North County Superfund Sites. 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 NRRB understands that the United States Army Corps of Engineers (USACE) is recommending excavation and remote commercial disposal for approximately 400,000 cubic yards of radioactively contaminated soils at the St. Louis Airport Site, the Hazelwood Interim Storage Site, and related properties in St. Louis, MO. The USACE proposes that most properties be cleaned to a level that would allow for unrestricted use. Several areas of inaccessible contamination and some groundwater contamination would be managed through long-term monitoring, maintenance, and institutional controls.

NRRB Advisory Recommendations

The NRRB reviewed the informational package for this proposal and discussed related issues on January 11, 2000, with EPA project manager Dan Wall and State of Missouri officials Bob Geller and Mimi Garstang. Based on this review and discussion, the NRRB offers the following comments.

- The information presented to the board indicates that the USACE assumes an industrial/commercial future land use for most of the site. However, the cleanup criteria are based generally on unrestricted use. An "unrestricted land use" assumption unnecessarily limits the number of potential cleanup alternatives. The board recommends that the USACE develop an alternative to allow for commercial/industrial use of the property and include it in the remedial analysis. Such an alternative might limit depth of excavation to levels traditionally associated with commercial/industrial land use. The board believes that if Alternatives 2 and 4 used more conventional excavation depths, lower estimated costs for these alternatives may result. This approach would be consistent with the land use assumptions used to select cleanup criteria at the St. Louis Downtown Site. (The board notes that for alternatives allowing commercial/industrial property use, attainment of one of the primary "applicable or relevant and appropriate requirements" (ARARs) for the site, 40 CFR Part 192, may involve greater use of "supplemental standards.")
- The USACE did not evaluate in detail a consolidation/containment alternative. The board recommends that the decision documents for this site should either include such an alternative or explain why it was screened out.
- The USACE is proposing to apply less stringent cleanup criteria to small subsurface areas, but what constitutes a small subsurface area is not adequately defined. Such areas could include as much as 20% of the area covered by this cleanup proposal. The residual risk in such areas might not achieve the stated goal of unrestricted residential land use. The USACE should explain in detail in its decision documents how the "small area subsurface criteria" will be established and used to achieve the "unrestricted land use" outcome.

- The Remedial Action Objectives (RAOs) call for compliance with surface water and sediment ARARs on Coldwater Creek. The USACE did not specify these ARARs, nor did it provide information on how the preferred alternative would achieve the surface water and sediments RAOs. The USACE should document how this alternative will achieve these RAOs and whether there is a need to address shallow ground water contamination that apparently discharges to Coldwater Creek. The USACE also plans to use Coldwater Creek mean water levels to determine sediment removal levels. The USACE should clarify how this strategy will meet the surface water and sediment RAOs.
- The USACE identifies 40 CFR part 192 and 10 CFR part 40, Appendix A, Criterion 6(b) as potential ARARs and uses them to establish surface and subsurface cleanup levels for soils, supplemental standards for some areas under roads, bridges, and railroad right-of-ways, and cleanup levels for non-radium radionuclides. It concludes that these levels will be protective without specifying the basis for that conclusion. The board recommends that the USACE provide this rationale the site decision documents.
- The information presented to the board identifies as a potential ARAR the subsurface soil standard of 15 pCi/g found in 40 CFR part 192. This regulation was developed specifically for cleaning up uranium mill tailings at 24 sites designated under Section 102(a)(1) of the Uranium Mill Tailings Radiation Control Act of 1978 (Title I sites). OSWER Directive No. 9200.4-25 states that this standard is a potential ARAR in the Superfund program only if the contaminants at a site are the same (i.e., radium-226, radium-228, thorium-230 and/or thorium-232) and the distribution of contamination is similar to that at Title I sites (i.e., little subsurface contamination from 5 to 30 pCi/g), and there is no backfill. The USACE does not adequately demonstrate that this site meets these criteria, especially with respect to pCi/g levels. The board recommends that the USACE justify its identification of 15 pCi/g as an ARAR in the context of OSWER Directive 9200.4-25 and demonstrate that the cleanup will achieve a level of 5 pCi/g.
- The USACE risk assessment uses exposure assumptions such as a non-24 hour day scenario for residential exposure, and a 1-hour outdoor exposure scenario for workers. These assumptions are not considered "standard defaults" according to OSWER Directives 9285.6-03 (March 25, 1991) and 9285.7-01B (December 1991). The board recommends that USACE include in its decision documents the rationale and technical bases for all site-specific exposure assumptions.
- The USACE did not calculate the total carcinogenic risk, summed across all radionuclides and non-radionuclide carcinogens. This is inconsistent with recommendations in OSWER Directives 9200.4-18 and 9200.4-31P. In addition, the USACE did not adequately present the non-carcinogenic threats presented by the site. The board recommends that the USACE calculate the total carcinogenic risk and non-carcinogenic threats (i.e., Hazard Indices), include this data in the site decision documents, and use it to develop the cleanup goals where appropriate.
- The risk assessment assumes the continued presence of existing structures, roadways, railroad right-of-ways, etc., making them de facto parts of the remedy. Because these structures and roadways serve as the basis for determining the protectiveness of the remedy, the board recommends that specific institutional controls be identified and considered part of the final remedy to ensure their maintenance and that the remedy remains protective. The remedial action objectives (RAOs) should reflect the use of existing structures in the remedy, and the decision document should include

contingencies to address the substructure soils should these structures require repair or removal. Decision documents should consider also the cost of that work. Finally, the board notes that the proposed use of a 100 millirem/yr limit in supporting supplemental standards to address substructure soils is inconsistent with OSWER Directive 9200.4-25 which indicates that cleanup levels be derived from the risk range when invoking supplemental standards under 40 CFR 192.

- The cost estimates for alternatives 2 through 6 describe primarily soil excavation and disposal activities. The estimated unit cost for excavation, transportation, and disposal in these alternatives is over \$500 per cubic yard, which appears high for this type of action. The board also notes inconsistencies in the costs for supervision and administration (S&A). The board recommends that USACE examine projects similar to this one and reconsider/recalculate the S&A costs where appropriate.
- The USACE has not sufficiently articulated its overall strategy for addressing ground water. The board questions whether the upper aquifer is potentially potable and should be remediated (considering the uranium concentrations identified at well M10-S), and whether it is connected with the higher quality potable aquifer below it. The board recommends that the USACE in its decision documents either (1) show evidence that the upper aquifer is not classified as a potable drinking water source and that it will not contaminate the lower one, or (2) present and evaluate remedial alternatives to address the groundwater contamination consistent with OSWER Directive #9283.1-12, October 1996, "Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites).
- The USACE cleanup proposal addresses only the Manhattan Engineering District (MED) contaminants and co-located non-MED contamination on the site. CERCLA requires that remedial actions address the threat to human health and the environment from all contaminants that present unacceptable risk. To ensure a fully protective cleanup, the board recommends that the region and the state work with the USACE and other PRPs to define a coordinated strategy to address all potential contaminants of concern on the site properties addressed by this action.

The NRRB appreciates the region's efforts to work closely with the USACE, state, and community groups at this site. We encourage Region 7 management and staff to work with their regional NRRB representative and the Region 5/7 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.

cc: S. Luftig
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