



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

DEC 11 1998

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the Oak Ridge Reservation
Melton Valley Watershed

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

TO: Richard D. Green, Director
Waste Management Division
EPA Region 4

Purpose

The National Remedy Review Board (NRRB) has completed its review of the proposed remedial action for the Melton Valley Watershed Operable Unit on the Oak Ridge Reservation. This memorandum documents the NRRB's advisory recommendations.

Context for NRRB Review

As you recall, 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. The board reviews all proposed cleanup actions that exceed its established 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 before the region issues the proposed response action for public comment. The region will then include these recommendations in the Administrative Record for the site. 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. 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.

NRRB Advisory Recommendations

The NRRB reviewed the informational package for the Melton Valley Watershed and discussed related issues with EPA site manager Ed Carreras on November 4, 1998. Based on this review and discussion, the NRRB offers the following comments.

- The site review package proposed a final decision for the floodplain soils and sediments. However, at the board review meeting, the region indicated that no final decisions on these media would be sought with this action as a result of recent State of Tennessee comments. Therefore, the board did not consider issues related to managing floodplain soils and sediment risks during its discussion.
- While the site review package developed an array of cleanup alternatives to address the various Melton Valley source areas, the package did not develop an alternative that characterized the specific combination of risk management approaches that is "preferred." The board recommends that DOE fully develop such a preferred alternative in the proposed plan to facilitate review and comment by site stakeholders.
- The board notes that this cleanup decision is unusually complex. Further, DOE's proposed remedy relies on long term institutional controls to manage highly significant contaminant risks on site for perpetuity. For these reasons, the board strongly recommends that DOE involve completely all stakeholders (e.g., local community, tribes, regional, state, and other federal jurisdictions) in developing and maintaining procedures to limit site access and future use.
- The DOE anticipates that the proposed actions in the various source areas will lower the ground water sufficiently to eliminate most (if not all) contact between waste and ground water. The board recommends source-area-specific monitoring, including unsaturated zone monitoring, to ensure that the cleanup achieves the remedial action objectives for hydraulic containment at each source area. The board also supports plans to install additional monitoring networks to further characterize ground water contaminant fate and transport, and ensure the cleanup meets area-wide containment remediation goals. The board notes that DOE may need to use additional, more aggressive measures to protect groundwater resources depending on (1) how well the proposed source area actions work, and (2) the ground water cleanup decisions to be considered in future operable units.
- DOE proposes to excavate and treat only the transuranic (TRU) wastes disposed of after 1970, based on DOE Order 5280.2A. Similar alpha-emitting radioactive wastes exhibiting long half-lives were disposed of prior to 1970, but are not proposed for excavation and treatment. The board recommends that DOE clarify the extent to which these excavation/treatment decisions are based on a risk reduction or permanence rationale versus one that is driven by compliance with ARARs, state acceptance, or other factors. The board believes it is reasonable to expect consistent management of these similar waste materials.
- The site review package states that in the Melton Valley "the vast majority of the waste and contaminated soils should be considered to be principal threat waste." Yet DOE proposes distinctly different waste management approaches for similar source materials or areas (e.g., hydraulic isolation, low pressure grouting, and *in situ* vitrification) without

clear explanation. In particular, the board notes that DOE proposes a \$25 million *in situ* vitrification treatment for trenches 5 and 7. The wastes in these trenches contain about 30% of the valley's total curie inventory and present a highly significant direct contact threat. However, these wastes are generally shorter lived radio nuclides and contribute little to leaching and surface water contamination relative to other contaminant sources. On the other hand, DOE proposes to cap SWSA 6, which has a higher total activity and contributes significantly more to surface water contamination.

Since it is a basic program expectation to treat principal threat source materials where ever practicable (40 CFR 300.430(a)(1)(iii)(A)), the board recommends that DOE provide in its decision documents site-specific rationale for why one approach is favored over another for a given source area. Where hydraulic containment is proposed over treatment, DOE should explain why treatment is not practicable. Additionally, where high cost treatment measures are proposed over other less costly forms of treatment (as in trenches 5 and 7) or containment, DOE should describe how the additional effectiveness (e.g., long term reliability) achieved would be proportional to the increased cost.

The NRRB appreciates the region's efforts to work closely with the state and community at this site. The board members also express their appreciation to the region for its participation in the review process. We encourage Region 4 management and staff to work with their regional NRRB representative and the Region 4/10 Accelerated Response Center at headquarters to discuss any appropriate follow-up actions.

Please do not hesitate to give me a call if you have any questions at 703-603-8815.

cc: S. Luftig
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