



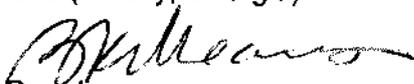
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

DEC 13 2000

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

**MEMORANDUM**

**SUBJECT:** National Remedy Review Board Recommendations for the Marine Corps Logistics Base Superfund Site (Albany, Georgia)

**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 Superfund cleanup action (OU 6, base wide groundwater) for the Marine Corps Logistics Base (MCLB) site in Albany, Georgia. 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.

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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 MCLB is a 3579 acre military logistics center, controlling the acquisition, storage, maintenance, and distribution of combat and support material for the U.S. Marine Corps. Since 1992 the facility has been the subject of a number of interim and final remedy decisions providing for capping, source removal, groundwater containment, and land use controls at five operable units. The NRRB reviewed operable unit number six, which addresses site-wide groundwater contamination. The review focused on three portions of the facility designated as the Northern Plume Area, Depot Maintenance Activity Area, and Potential Site of Contamination 4 Area. Contaminants of concern consist primarily of a variety of chlorinated volatile organic compounds. The Southern Division, Naval Facilities Engineering Command (Navy), on behalf of the Marine Corps, has proposed source control remedies including installation of an evapotranspiration (ET) cap and a soil cover, and groundwater remedies including enhanced bioremediation and monitored natural attenuation (MNA). Contingency remedies have also been proposed.

### **NRRB Advisory Recommendations**

The NRRB reviewed the informational package for this proposal and discussed related issues on November 14, 2000, with EPA site manager Robert Pope, and State of Georgia project manager Billy Hendricks (Georgia Environmental Protection Division). Based on this review and discussion the board offers the following comments:

- It is important to note that this proposed action was presented to the board only after the public comment period on the proposed plan had closed. As a result, interested stakeholders were both unaware of and unable to review board comments prior to formulating their own.
- The package presented to the Board did not include an ARARs analysis. Since all Superfund remedies must meet (or waive) ARARs, this is an important omission that made it difficult for the board to evaluate certain aspects of the proposed action. The Board recommends that the Navy include in the decision documents for this site the appropriate ARARs analysis (as required by the NCP Section 300.430(f)(5)(ii)(B) and (C)) with specific emphasis on meeting MCLs in the short and long term, and citing waiver provisions if appropriate. Additional guidance can be found in OSWER Directive 9200.1-23.P, "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents."

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- The board notes that hazardous substances released from the facility have contaminated the ground water beneath residential areas adjacent to the facility, and that the ground water has been and could be used for drinking water supplies. The board understands that discussions are ongoing with county government officials regarding the use of possible institutional controls (ICs). Since such controls appear to be necessary for a protective remedy, the board recommends that the Navy address in the ROD the timing, mechanism(s), and appropriate entities responsible for securing, maintaining, and enforcing the specific ICs that will ensure protection of human health. Further guidance can be found in the recent OSWER Directive 9355.0-74FS-P (September 2000) entitled: Institutional controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups.
- The information presented to the board cited specific restoration goals and time frames: (1) "A 50% reduction in chlorinated VOCs within 3 years," (2) Achievement of MCLs within 10 years in areas off the base property, and (3) Achievement of MCLs within 20 years in areas on the base property. However, no analysis was provided to demonstrate that these goals can be attained by the preferred alternative. The board recommends that the Navy describe in the ROD how the preferred alternative is expected to meet these goals and time frames (e.g., through pore volume replacement, biological half life, nutrient delivery effectiveness, etc.).
- The board is concerned that the in-situ biodegradation pilot tests may not provide sufficient information to demonstrate the full-scale implementability and cost effectiveness of the technology. The board recommends that pilot scale field demonstrations be conducted to ascertain the ability to effectively move nutrients through the upper water bearing zone and the ability to completely degrade contaminants of concern. Also, the Navy should include in the ROD clearly defined criteria for evaluating the success or failure of these pilot studies at this site.
- Due to the described very low yield of the upper water bearing zone for this site, the board questions whether this zone should be considered a drinking water source under Federal and State guidelines. If not a drinking water source, this upper water-bearing zone should be considered a secondary source with contaminants migrating to the lower (potable) aquifer. In turn, this designation would support re-defining the remedial action objectives from MCLs to those associated with a source removal action. The board recommends that the Navy work closely with the state and EPA to carefully consider the use potential for this upper aquifer and set realistic and achievable criteria for its cleanup in the ROD.
- Based on the information provided to the board, the advantages in using an evapo-transpiration cap versus the more traditional impermeable clay cap are not clear. It appears that the costs of the two capping approaches are similar. However, there is additional uncertainty associated with the effectiveness of the ET cap. For example, the pilot study may be unable to simulate the performance of an ET cap under a wide range of conditions (e.g., during extremely wet or dry conditions). Modeling should be considered to fully evaluate this concern prior to selecting the ET cap. Further, it will take longer to implement the ET capping approach because of the pilot study needed to determine its suitability under site conditions. The board recommends that the Navy clearly document in the ROD its rationale for selecting the ET cap-based remedy and

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the criteria or measures to be used in evaluating the results of the pilot study and in selecting the final cap.

- The package presented to the board did not contain adequate data to support monitored natural attenuation as a final remedy for the lower water bearing zone or for the upper water bearing zone in PSC-4. The mechanisms and rates of degradation have not been characterized and it is unclear whether the plumes continue to expand. If MNA is selected, supporting evidence, such as site specific adsorption and dilution rates or biological kinetics, should be developed for the Administrative Record and summarized in the ROD. Additional guidance on the use of MNA can be found in OSWER Directive 9200.4-17, "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites."
- The cost estimates presented to the board used the parametric cost estimating software "RACER." This program does not adjust costs by a discount factor as required under the NCP and as described in OSWER Directive 9355.0-75, "A Guide to Developing and Documenting Cost Estimates during the Feasibility Study." The ROD for this site should include cost estimates prepared in accordance with the NCP and OSWER guidance.
- The board notes that significant uncertainties exist with regard to the implementability and long term effectiveness of the technologies relied upon by the preferred alternative. Treatability studies are currently underway that will not be completed until after the ROD is finalized. The board recommends that the Navy consider a staged approach in the ROD, delaying a final decision (preferred alternative vs. contingencies) for both the landfill cap (i.e, ET cap) and the ground water restoration components (i.e., MNA and in-situ bioremediation) until the successful completion of the necessary field demonstrations.

The NRRB appreciates the region's efforts to work closely with the state, the Department of the Navy, and community groups at this site. We encourage Region 4 management and staff to work with their regional NRRB representative and the Region 4/10 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,

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