



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

OFFICE OF SOLID WASTE AND EMERGENCY
RESPONSE

May 12, 2010

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the Upper Basin of the Coeur d'Alene River, Bunker Hill Mining and Metallurgical Complex Superfund Site

FROM: Amy R. Legare, Chair
National Remedy Review Board

A handwritten signature in black ink, appearing to read "AR Legare".

TO: Daniel D. Opalski, Director
Office of Environmental Cleanup
U.S. EPA Region 10

Purpose

The National Remedy Review Board (the Board) has completed its review of the proposed cleanup action for the Upper Basin of the Coeur d'Alene River, Bunker Hill Mining and Metallurgical Complex Superfund site, in Idaho. This memorandum documents the Board's advisory recommendations.

Context for Board Review

The Administrator established the Board as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective remedy decisions. The Board 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 Board review is intended to help control remedy costs and to promote both consistent and cost-effective decisions. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) mandates that, in addition to being protective, all remedies must be cost-effective. The Board considers the nature of the site; risks posed by the site; regional, state, tribal and potentially responsible party (PRP) opinions on proposed actions; the quality and reasonableness of the cost estimates; and any other relevant factors or program guidance in making our advisory recommendations. The overall goal of the review is to ensure sound decision making consistent with current law, regulations, and guidance.

Generally, the Board makes the advisory recommendations to the appropriate regional division director. Then, the region will include these recommendations in the administrative record for the site, typically before it issues the proposed cleanup plan 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 region's final remedy decision. The Board expects the regional division director 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. Although the Board's recommendations are to be given substantial weight, the Board does not change the Agency's current delegations or alter in any way the public's role in site decisions; the region has the final decision-making authority.

Overview of the Proposed Action

The Bunker Hill Mining and Metallurgical Complex Superfund site ("Bunker Hill Superfund site") is located in northern Idaho and eastern Washington. Mining and smelting began there in the 1880s, and the area became one of the leading silver-, lead- and zinc-producing areas in the world. After over 100 years of mining, milling, smelting and related activities, the Coeur d'Alene Basin now contains high levels of mining contamination in the soil, sediment, surface water and groundwater. The site was listed on the NPL in 1983. It includes mining-contaminated areas in the Coeur d'Alene River corridor, adjacent floodplains, downstream water bodies, tributaries and fill areas. The metals contamination poses both human health and environmental risks.

EPA has been conducting cleanup actions at the site since the 1980s. Over the last year, EPA and its partners have been evaluating Bunker Hill Superfund site cleanup activities in operable units (OUs) 1, 2 and 3 to develop a comprehensive, prioritized cleanup approach for the Upper Coeur d'Alene Basin. The Upper Basin includes the South Fork of the Coeur d'Alene River and its tributaries downstream to where they combine with the North Fork. Also included is the 21-square-mile Bunker Hill "Box" around the old Bunker Hill smelter, the area where EPA began its cleanup in the 1980s. The new cleanup approach is being undertaken in part to address National Academy of Sciences recommendations, to incorporate our improved knowledge of the Upper Basin and Box and to move forward on OU 2 Phase II cleanup activities. This effort will culminate in EPA identifying and selecting additional remedial actions for the Upper Basin and Box in a record of decision (ROD) amendment. The ROD amendment is also planned to include actions to protect the human health remedy by addressing local drainage issues. Implementation of the new cleanup plan will provide a framework for reducing the amount of metals getting into streams and meeting environmental benchmarks that are necessary to protect fish, wildlife and provide a better quality of life for residents.

National Remedy Review Board Advisory Recommendations

The Board reviewed the information package describing this proposal and discussed related issues with Region 10 staff (Anne Dailey, Anne McCauley, Bill Adams, Angela Chung,

and Ted Yackulic), Idaho Department of Environmental Quality staff (Nick Zilka and Rob Hanson) and Coeur d'Alene Tribe representatives (Phillip Cerna and Kinzo Mihara) on April 27, 2010. Based on this review and discussion, the Board offers the following comments:

Site Characterization/Remedy Performance

The Board acknowledges that the package focuses on the Upper Basin. However, the Board notes that significant risks exist in the Lower Basin. With these risks in mind, the Board recommends that the Region continue to refine the conceptual site model, including the Lower Basin, and take steps to address these risks in the Lower Basin as soon as practicable.

The Region's preferred remedy represents an overall conceptual plan for addressing contamination in the Upper Basin. Implementation of the remedy would utilize adaptive management to allow an evaluation of the effectiveness of specific actions and an adjustment of subsequent actions to achieve remedial objectives. The Region estimated the cost of the remedy at \$1.3 billion over 50 to 90 years. Given the magnitude of the site, proposed remedy and uncertainties inherent at large mining sites, the cost estimate and implementation timeframes may be subject to significant variation. In addition, other components of the proposed remedy, such as the location and size of waste repositories, are not yet fully defined. The Board recognizes, however, that these issues are being addressed in an ongoing siting process led by the State of Idaho and will include community participation. In addition to cost impact, public support or opposition to the repositories may also affect implementation of the remedy. The Board recommends that the decision documents more clearly describe the potential uncertainties associated with implementation of the Preferred Alternative and outstanding issues related to repository siting to ensure that the public fully understand the remedy and how the Region plans to implement it. The Board acknowledges the Region's approach and use of adaptive management during remedy implementation. However, since some decisions will be made in the future, the decision documents should clearly describe the adaptive management process, why it is appropriate for this site, and how public comment and community involvement will be incorporated into the process.

The package presented to the Board focused on the rationale and alternatives for the Upper Basin as a whole, but it did not discuss individual site alternatives and decisions, and how they were made and, therefore, they were not reviewed by the Board. The Board understands that due to the large number of individual sites (i.e., 345), a discussion of each site would not have been practical to include in the Board's site information package but was advised that this information is available in the focused feasibility study. However, the Board recommends that the decision documents clearly identify the Region's rationale/criteria for addressing each media type (e.g., floodplain tailings, upland waste rock, sediment, etc.) and each cleanup action type (e.g., excavation, capping, french drains, streambed lining, etc.). This will also help the public to understand the cleanup process.

The package reviewed by the Board presented an overall conceptual strategy for remediating the Upper Basin of the Coeur d'Alene site that did not include all of the information the Region has developed to support its proposal. The Board recommends that the Region provide a general overview of the priority projects for the first increment of work in the implementation plan (IP). Additionally, the Board recommends that the decision documents include a description of the

development and updating of an IP. The decision documents should also provide a frequency for the IP updates, and the content of the IP should contain a “look ahead” of planned projects for that implementation period.

The Board noted in the presentation that a monitoring plan exists and is being conducted; the Region also referred to the development of the Implementation Plan. The Board recommends that the Region consider integrating these two plans to achieve several goals and provide greater clarity and transparency. These goals could: provide a tool for communicating how actions are prioritized; document the effectiveness of completed remedial actions, not only in terms of load reduction but also in terms of risk reduction, and/or use obtainment; and provide a mechanism by which risk-based results may be integrated as alternative measures to demonstrate achievement of protectiveness. The Board also recommends that the Region more clearly spell out remedial action objectives in the decision documents so that when the remedy is completed, the Agency can demonstrate success.

Principal Threat Waste

In the information presented to the Board, concentrations were provided for metals that would be considered principal threat wastes (PTWs) as defined in a previous ROD. The Board recommends that the Region explain in this decision document the basis for selecting those concentrations to define those metals as PTWs.

Institutional Controls

The information presented to the Board was not clear on what institutional controls (ICs) would be required for the remedies proposed in this decision document. The Board recommends that the Region clearly identify the ICs that would be required for protectiveness when implementing the actions pursuant to this decision document.

Stakeholders

During the Board’s proceedings, the State of Idaho representatives indicated that no decision had yet been made relative to support or concurrence with the Region’s proposed remedy. The State letter supported actions to protect remedial work already undertaken. During the State’s presentation, its representatives indicated that the Agency’s technical approach is reasonable. Further, the State recommends that remedial actions be prioritized to produce the most tangible results, an approach that is consistent with the Region’s remedial plan for the site. The Board recommends that the Region continue to work with the State of Idaho to reach agreement on the components of a proposed remedy. Reaching such agreement is important given the potential amount of matching funds required to implement the remedy.

Conclusion

We commend the Region’s collaborative efforts in working with the Board and stakeholder groups at this site. We request that a draft response to these recommendations be included with the draft proposed plan when it is forwarded to the Office of Superfund Remediation and Technology Innovation’s Site Assessment and Remedy Decisions (SARD) branch for review. The SARD branch will work with both your staff and the Board to resolve

any remaining issues prior to your release of the record of decision. Once your response is final and made part of the site's administrative record, a copy of this letter and your response will be posted on the Board's website (<http://www.epa.gov/superfund/programs/nrrb/>).

Thank you for your support and the support of your managers and staff in preparing for this review. Please call me at (703) 347-0124 should you have any questions.

cc: J. Woolford (OSRTI)
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