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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460OFFICE OF SOLID WASTE AND EMERGENCY  
RESPONSE

October 28, 2010

**MEMORANDUM****SUBJECT:** National Remedy Review Board Recommendations for the Centredale Manor Restoration Project Site**FROM:** Amy R. Legare, Chair  
National Remedy Review Board **TO:** James T. Owens, Director  
Office of Site Remediation and Restoration  
U.S. EPA Region 1**Purpose:**

The National Remedy Review Board (the Board) has completed its review of the proposed cleanup action for the Centredale Manor Restoration Project Superfund site, in North Providence, Rhode Island. 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.

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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**

Based on the alternatives evaluated in the Feasibility Study, EPA is proposing the following long-term cleanup approach for the Centredale Manor Restoration Project Superfund site. Estimated cost of the proposed remedy is \$94 million.

- **Source Area Soil:** Alternative 4e – Targeted Excavation, Convert to Resource Conservation and Recovery Act (RCRA) Caps and Maintain, and Off-site Disposal and/or Treatment
- **Source Area Groundwater:** Alternative 2 – Excavation/Dewatering (Construction implemented)
- **Allendale and Lyman Mill Reach Sediment:** Alternative 7a – Excavation and On-site Containment in an Upland CDF
- **Allendale Reach Floodplain Soil:** Alternative 5a – Excavation and On-site Containment in an Upland CDF
- **Lyman Mill Reach Stream Sediment and Floodplain Soil:** Alternative 3a – Targeted Excavation, Enhanced Natural Recovery, and On-site Containment in an Upland CDF

### **National Remedy Review Board Advisory Recommendations**

The Board reviewed the information package describing this proposal and discussed related issues with Region 1 staff members Anna Krasko, Kymberlee Keckler, Chau Vu, Eve Vaudo, Gretchen Muench and Cornell Rosiu. The review was held on August 18, 2010. Based on this review and discussion, the Board offers the following comments:

#### **Site Characterization**

The information presented to the Board indicated that the State has not obtained approval of a Comprehensive State Groundwater Protection Program, so the groundwater classification would default to the federal classification. The Region indicated that the groundwater at the site was classified as Class III: Not a Potential Source of Drinking Water and/or of Limited Beneficial Use. Based on the information presented to the Board, the Region's groundwater classification approach may not be consistent with the 2009 Office of Solid Waste and

Emergency Response (OSWER) Directive 9283.1-33, *Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration*. The Region should more fully describe the basis that was used to classify the groundwater under the *Guidelines for Ground-Water Classification under the EPA Ground-Water Protection Strategy* (December 1986) or change the classification in accordance with these guidelines. In addition, the Region should coordinate this rationale or change with Office of Site Remediation and Technology Innovation (OSRTI) and Federal Facilities Restoration and Reuse Office (FFRRO) before proceeding.

The Board notes that the Region views the dioxin-contaminated flood plain soils and mill pond sediments as listed waste under RCRA. The classification of these contaminated media as listed waste affects (i.e., likely limits) the range of available remedy options and potential Remedial Action Objectives (RAOs). To help ensure consistency throughout the regions and the Superfund program, the Board recommends that the Region better explain in its decision documents and supporting administrative record the determination that the dioxin-contaminated flood plain soils and pond sediments are RCRA-listed waste, and the rationale for addressing those soils and sediments differently.

### **Remedial Action Objectives**

As presented in the package, the residential polychlorinated biphenyls (PCBs) preliminary remediation goal (PRG) was identified as 10 milligrams per kilogram (mg/kg) for soils (Rhode Island Department of Environmental Management residential direct exposure criterion). The EPA recommended residential PCB PRG is 1 mg/kg for soils. At the meeting, the Region acknowledged that it did not use the EPA recommended PRG but that it would make this change in line with the Board's recommendation to do so. The Board also recommends that the decision document more clearly describe the frequency of occurrence and resulting changes in volume estimates for remediation.

Based on the package presented, the Board is concerned that the cleanup level (at this site, expressed as a remediation goal (RG) related to fish consumption) may not be achievable in the time frame specified, especially for the lower pond area since contamination will be left in place in the Oxbow Area and might possibly be remobilized during flooding events [see also the recommendation on the reliability of the RCRA cap in the source area]. The Board recommends that the Region review whether the cleanup level (at this site, expressed as related to fish consumption) is achievable in the time frame estimated in the package.

### **Remedy Performance**

Based on the package presented to the Board, there appear to be high levels of dioxin and PCBs in soils and sediments throughout much of the site. The Region's preferred alternative calls for treatment of only a portion of these contaminants of concern. In light of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and NCP preference for treatment to the maximum extent practicable, and in light of the Agency's currently ongoing reassessment regarding the toxicity of dioxin, the Board recommends that the Region explain in its decision documents: 1) the basis for treating the volume of dioxin and PCB identified; and 2) why treatment of areas with significantly higher concentrations (potentially representing principal threat waste) would not be evaluated/considered as an alternative. In addition, the Board recommends that the decision documents explain how using 10 times the

universal treatment standard (10xUTS) (where land disposal restrictions for soil and 10xUTS are not risk-based) as a screening mechanism ensures protection of human health and the environment, and is consistent with the preference for treatment in CERCLA and the NCP. Finally, the Board recommends that the Region explain its basis for effectively equating sediments with soils for purposes of this screening mechanism.

When considering habitat value, the preferred alternative appears to rely on different approaches with respect to removal of contamination from Lyman and Allendale Ponds as opposed to removal of contamination from the Oxbow Area. Region 1 believes that the Oxbow Area represents a significant wildlife habitat, as compared to the ponds, and has delineated the area to ensure that the maximum net environmental benefit be derived from the proposed action. The Board recommends that the Region re-evaluate the areas selected for excavation, targeted excavation and enhanced natural recovery, while balancing the impacts to all areas to achieve maximum risk reduction. The decision documents should explain how leaving source material in the wetland areas ensures protectiveness and why hot-spot removal is not practicable.

The material presented to the Board indicated that the RCRA cap over the source area soils is intended to protect against direct contact and against contaminant vertical migration/leaching. In the event of a flood and in conjunction with the shallow groundwater flow conditions at the site, the RCRA cap may not provide sufficient protection from contaminant release to ground and surface waters. The Board recommends that the Region better explain how the cap will prevent contaminant release via flow-through residual soil contamination.

In the package presented to the Board (section 13.4, page 100), the Region stated that "appropriate land could be acquired to address this project need" referring to the replacement of wetlands that are damaged in the Remedial Action. Consistent with Clean Water Act section 404 and its implementing regulations, a remedy generally includes restoration/replication of the wetland areas disturbed by the response actions rather than acquiring land. The Board recommends that the Region clarify this component of the remedy in the decision documents.

In the package presented to the Board, sediment removal alternatives were preferred to those involving capping as a component. During the meeting, the Region explained that because capping necessitates institutional controls and maintenance, it makes it a less reliable remedial approach in this particular case. The Board notes that capping is often selected as a remedy for contaminated sediments, which can result in lower costs and less material requiring disposal. These features may be important at this site given the limited land available for a confined disposal facility. More specifically, the preferred alternative (7a) for the Allendale and Lyman Mill Reach sediments involves excavation and disposal of 155,800 cubic yards (cy) of material at a cost of \$61 million. However, another alternative (8a), which includes a combination of excavation and capping, could also result in a protective remedy at a lower cost (i.e., as low as \$45 million). Only 66,400 cy of sediment would be removed under this latter alternative. In view of the cost and disposal need features, the Board recommends that the Region further consider the merits of alternatives involving a combination of excavation and capping, and include the results of this evaluation in the alternatives analysis in the site decision documents.

## **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)  
E. Southerland (OSRTI)  
E. Gilberg (OSRE)  
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