Updated 03/01/04

ATTACHMENT

Guidelines for the OSRTI Review of Consideration Memos on Tier 1 Sediment Sites

BACKGROUND

These guidelines have been developed by the OSRTI Sediment Team with input from the Contaminated Sediment Technical Advisory Group (CSTAG) to provide OSRTI regional coordinators a tool to use in evaluating how well RPMs have documented how they considered OSWER Directive 9285.6-08, *Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites* when evaluating alternatives and proposing a remedy at a site.

Under the Tier 1 review process, Directive 9285.6-08 requested that RPMs (or OSCs) submit written documentation (i.e., a Consideration Memo) to the headquarter's Superfund program office (then known as OERR, now as OSRTI) prior to proposing a response that includes a sediment action which, in combination with other sediment actions at a site, would result in dredging more than 10,000 cy or capping or using monitored natural recovery as a remedy for more than five acres, calculated on a site-wide basis. The Consideration Memo should be sent to the appropriate OSRTI coordinator listed below at least 30 days before issuing the Proposed Plan or EE/CA. It is anticipated that a typical Tier 1 Consideration Memo will be no longer than 10 pages, but will vary with the complexity of the site. The OSRTI Sediment Team has committed to send comments to the RPM within three weeks. The comment memo will be signed by the Sediment Team Leader and copies will be sent to the Regional Division Director, the OSRTI Division Director and the OSRTI Regional Branch Chief. OSRTI expects that these comments will be reflected in the final version of the Consideration Memo (which will become part of the administrative record for the site when the ROD is issued) and considered in finalizing the Proposed Plan and drafting the ROD.

Directive 9285.6-08 also established the CSTAG to advise project managers at a limited number of large, complex or controversial Tier 2 sites. CSTAG is requesting similar written documentation for the sites it is reviewing, but at multiple times during the site investigation and remedy evaluation process. For Tier 2 sites, the Consideration Memo should be sent to the CSTAG co-chairs. It is anticipated that a typical Tier 2 memorandum will be longer than 10 pages.

QUESTIONS OSRTI COORDINATORS SHOULD ASK WHILE REVIEWING CONSIDERATION MEMOS

OSRTI recommends that Superfund project managers address each of the 11 principles when documenting their consideration of Directive 9285.6-08 under either the Tier 1 or Tier 2 review process. The questions listed below are intended to help OSRTI coordinators judge how well RPMs explained how they considered the principles. The questions are written to apply to a site at the draft Proposed Plan stage or when the draft Engineering Evaluation/Cost Analysis (EE/CA) is being prepared for public comment. Where a proposed plan or EE/CA applies to one

or more (but not all) of several sediment operable units, the memorandum should address sediment aspects of the site as a whole, to the extent practicable and relevant to the proposed remedy.

1. Control Sources Early.

A. Were all significant continuing sources of sediment contamination at the site identified? For each continuing source, were the plans to control these sources described, including the expected time to complete these actions, who will undertake them, and how any continuing sources are being monitored?

B. Where there is uncertainty about the timing or effectiveness of source control actions, or if all sources can be controlled, did the memo indicate (1) how the potential for recontamination had been considered in the selection or development of the proposed sediment remedy, and (2) to what extent the proposed sediment remedy is expected to be beneficial if source control is not effective or not complete by the time the proposed sediment remedy is planned to be implemented?

2. Involve the Community Early and Often.

A. Was the role of the community in the RI/FS or EE/CA and the mechanisms that were used to solicit effective involvement of a variety of community members described?

B. Did the memo briefly describe how local societal and cultural practices were identified and considered in (1) the human health risk assessment (e.g., local recreational use of the water body, local fishing practices) and (2) the selection or development of the proposed remedy (e.g., current and future uses of the water body)?

C. Did the memo describe the major ways the proposed sediment remedy is expected to affect the local community, including impacts that occur during remedy implementation?

D. Was the expected level of community support for the proposed sediment remedy discussed? Did the memo identify any aspects that are expected to be of most concern to the community and briefly describe how these concerns have been addressed or considered?

3. Coordinate with States, Local Governments, Tribes, and Natural Resource Trustees.

A. Did the memo briefly describe the major sediment-related issues in which State and local governments have been involved at the site? If there were any aspects that are expected to be of most concern to State and local governments, did the memo describe how those concerns have been addressed or considered?

B. For sites that include water bodies where Total Maximum Daily Loads (TMDLs) are being or have been developed, were the coordination efforts with the State and with EPA's water program

described? Were any aspects of the TMDL development that were considered in selecting the proposed remedy discussed?

C. If there are Tribal interests at the site, did the memo identify any aspects of the proposed sediment remedy that are expected to be of most concern to the Tribe(s) and how those concerns have been addressed or considered?

D. If there are Natural Resource Trustee interests at the site, did the memo identify the major areas of coordination related to the performance of the RI/FS or the ecological risk assessment? Were any Trustee restoration activities that may be concurrent with or follow the Superfund action and the extent to which those restoration activities are dependent on the Superfund action discussed?

4. Develop and Refine a Conceptual Site Model that Considers Sediment Stability.

A. Was a copy of the conceptual site model for sediment (e.g, one or more diagrams or charts) included in the memo? Did it identify all major contaminant sources, contaminants of concern, affected media, existing and potential exposure pathways, and human and ecological receptors that are at risk?

B. Did the memo identify the natural and man-made disruptive events or forces that were considered when evaluating sediment alternatives, including the recurrence interval or probabilities of those events or forces? Did it relate these forces to rates of erosion and sedimentation?

5. Use an Iterative Approach in a Risk-Based Framework.

A. Did the memo briefly describe the major ways in which an iterative approach was used at the site? (An iterative approach is one that incorporates testing of hypotheses and conclusions and fosters re-evaluation of new information as it is gathered..)

B. Did the memo describe any early or interim actions (other than the proposed remedy) planned or implemented at the site that address threats from contaminated sediment?

C. If the proposed sediment remedy will be implemented in phases or if it is part of a larger phased approach to the site as a whole, were the phases clearly described?

6. Carefully Evaluate the Assumptions and Uncertainties Associated with Site Characterization Data and Site Models.

A. Did the memo briefly describe the most important uncertainties associated with characterizing site conditions? Where mathematical models were used, were the uncertainties around the important input parameters (e.g., those used to the estimate human health and ecological risk and the predicted effectiveness of potential sediment remedies) discussed? Did the memo briefly explain how those uncertainties were accounted for (e.g., use of sensitivity analyses or reasonable conservative assumptions)?

B. If a new mathematical model was used, or if a model at a large or complex site was calibrated using site data, did the memo describe the peer review process used for the model and briefly summarize the results of the peer review?

7. Select Site-specific, Project-specific, and Sediment-specific Risk Management Approaches that will Achieve Risk-based Goals.

A. Did the memo list all alternatives that were evaluated for remediation of contaminated sediment at the site? If this list did not include some form of each of the three major sediment cleanup methods (i.e., capping, monitored natural recovery, dredging, and/or combinations of these), did the memo explain why the method was not evaluated?

B. Did the memo describe the proposed sediment remedy for the site and how it relates to any other sediment operable units at the site?

C. Did the memo clearly explain the rationale for the proposed remedy, and does it make sense based upon the information in the Proposed Plan?

8. Ensure that Sediment Cleanup Levels are Clearly Tied to Risk Management Goals.

A. Did the memo briefly summarize the risks associated with contaminated sediment that were identified in the human health and ecological risk assessments?

B. Did the memo describe the remedial action objectives (RAOs) or removal objectives that were developed to address these risks?

C. Did the memo describe the sediment cleanup and/or action levels, and briefly describe how they were derived, how they relate to the RAOs or removal objectives, and when they are expected to be met?

9. Maximize the Effectiveness of Institutional Controls and Recognize their Limitations.

A. Did the memo identify any institutional controls that are part of the proposed sediment remedy, and if so, describe how they will be implemented and any plans to maximize their effectiveness (e.g., public education regarding fish consumption advisories)?

B. Did the memo briefly describe any plans for monitoring or information collection at the site which will be used to evaluate the effectiveness of institutional controls?

10. Design Remedies to Minimize Short-term Risks While Achieving Long-Term Protection.

A. For in-situ capping alternatives, did the memo describe the measures that will be taken to minimize contaminant releases during cap placement, and the expected impact of cap materials on the recolonization of the cap by biota?

B. For dredging alternatives, did the memo briefly describe the measures that will be taken to minimize contaminant releases and sediment resuspension during dredging? Did it describe how and when the dredged habitat is expected to recover? If on-site disposal is planned, did it briefly describe the disposal unit and monitoring that will be required to assess protectiveness?

C. Did the memo briefly describe the major expected effects of the proposed remedy on societal and cultural practices and how these were considered in remedy selection?

11. Monitor During and After Sediment Remediation to Assess and Document Remedy Effectiveness.

A. Did the memo briefly describe the type of monitoring that will be required to assess contaminant releases during remedy implementation (i.e., during dredging, during cap placement, or during the recovery period in the case of monitored natural recovery)?

B. For each medium (e.g., sediment, surface water, biota) that has a cleanup level or remedial action objective listed in the answer to #8A above, did the memo briefly describe the type of monitoring (including physical, biological, and chemical monitoring) that will be required to determine whether the levels and objectives are met? If sufficient baseline data were not available, were plans for collecting additional data prior to implementing the remedy described?

C. Did the memo briefly describe other plans for long term monitoring (e.g., monitoring of long-term success of source control measures, effects of disruptive events, migration of buried contaminants, cap integrity)?