

Achieving Greater Success Through Strong Partnerships

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Best Management Practices: Remedial Alternatives

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Munitions site cleanup decisions

- Need robust range of remedial alternatives
- Don't default to LUCs only every time
- Decision document language need clear, concise and factually correct decisions
- Selected remedy needs to be clearly supported





MMRP Cleanup

- Old process Cleanup as you investigate...then LUCs for the decision document
- Technology developments have shifted us to "normal" path under CERCLA and forward-looking remedies
- More reliance on data quality to make effective decisions (weight of evidence)
- Decision document more likely to have active treatment remedy along with LUCs



Range of Remedial Alternatives

- Remedial Alternatives
 - Need a range of treatment alternatives
 - One or more alternatives for LUCs
 - Can be creative e.g., cleanup in HD areas and LUCs in LD areas
- CERCLA/NCP preference for treatment
- Common concern Why should we cleanup when we will still need LUCs?



Evaluation of Alternatives

- CERCLA 9 Criteria
- Risk/hazard assessment –tools are not the decision but feed into CERCLA decision process
- What does "acceptable" mean?



Unlimited Use/Unrestricted Exposure (UU/UE)

- UU/UE generally is the level of cleanup at which all exposure pathways present an acceptable level of risk for all land uses
- Is it possible? ... Maybe, it depends on many factors:
 - Start planning with potential end in mind don't start asking at end of process what do
 we need to do to get UU/UE....
 - Site characteristics: terrain, geology, munitions type, etc.
 - QA/QC and data quality
 - Better characterization (e.g., depth profile, etc.)
 - Technology limitations
 - Build a strong CSM and limit uncertainty
- Acceptable risk does not always = UU/UE
- MR QAPP Module 2 example



Documenting the Decision

- Need clear, concise and factually correct decisions
- Selected remedy needs to be clearly supported and appropriate
- How would you write the Decision Document? Would it be different if UU/UE possible?
- What happens if the remedy does not achieve UU/UE?



Questions?



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