ST. LOUIS FUSRAP OVERSIGHT COMMITTEE c/o 111 So. Meramec Clayton, MO 63105 314.615.1635

January 6, 2000

MEMORANDUM

TO:

FUSRAP Oversight Committee Members

Other Interested Parties

FROM:

Richard R. Cavanagh, Chair

RE:

Next Meeting and Updates

The next meeting of the St. Louis FUSRAP Oversight Committee will be on Friday, January 14, 2000, 11:30 am, at the Latty Ave. trailers. Committee members unable to attend should contact me to be excused.

As of this date, USACE has not released its recommendation regarding the remediation alternative for the proposed North County ROD. There is some question whether the proposal will be officially released in time for the EPA Remedy Review Board meeting in Seattle, January 10. However, Dan Wall of EPA indicated to me that the Review Board would still consider the outlined alternatives, even if they have not received the official document from USACE. Therefore, I will assure that a letter from the Committee stating our position (that Clean Up Standards should be those outlined in the Task Force Report) will be e-mailed to Dan so that he can take it with him to the meeting.

I have also attempted to schedule a meeting time for the Committee with the Colorado DOE people to orient them to the St. Louis FUSRAP sites. As of the date of this memo, I still have not been able to confirm an exact date for their trip (though it looks like it will be the last week in January). I hope to be able to announce a date and time for the meeting at our January 14 meeting.

Thanks.

:RRC

ST. LOUIS FUSRAP OVERSIGHT COMMITTEE c/o 111 South Meramec = Clayton, MO 63105 314.615.1635

Summary of Meeting

Members present: Ric Cavanagh, Tom Manning, Tom Binz, Sally Price, Jack Frauenhoffer, Donovan Larson

Committee Members Excused: Bill Brandes

Other Interested Parties: Tom Horgan, Lou Dell'Orco, Sharon Cotner, Jim Moos, Larry Erickson, Eric Gilstrap, Dan Wall, David Wagoner, George Barson, Sandy Delcoure, John Wadell, Carol Prombe, Elaine Seele, Bob Boland

The meeting was conducted in two parts: a progress report on work to date and a briefing on the proposed North County ROD.

At the meeting, Committee member Donovan Larson submitted his resignation as he is taking a new job in Jefferson County and will no longer be able to be involved in the FUSRAP project. The Committee expressed thanks to him for his years of dedicated service to the Committee and previously on the Task Force. His many good questions will be missed.

The following comments are in addition to the handouts provided by USACE at the meeting (see attached).

Progress Report

- Page 6 More cyd's were in VP 38 than expected. Utility meeting: it has been hard to get Bell Telephone to attend meetings. County water will attend. Need to get City water to attend.
- Page 7 additional ordnance found, removed by City Police Bomb Squad. (In the future, USACE contractor will detonate other ordnance on site, with the approval of City Police and Fire).
- Page 8 TWG is Technical Working Group. POC is DOE. Attempts are being made to set up a Committee meeting with DOE out of Colorado to orient them to the project. (As of the 1/6/00, dates for the visit have not been finalized).

Briefing

Sharon Cotner provided the information with the assistance of Jim Moos and John Waddell, both also from USACE

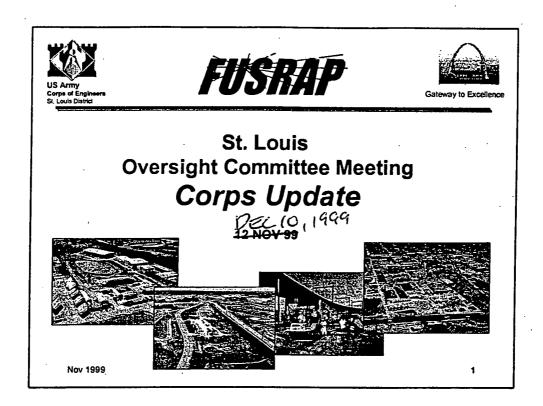
- Page 4 Authority lies principally in MED/AEC. PAM means Preliminary Assessment Memorandum. FS is feasibility study.
- Page 5 Ecological risk pertains especially to Coldwater Creek (which hadn't been addressed by DOE previously). Therefore, there are no real problems with the Creek.
- Page 6 PCOC means Potential Chemicals of Concern (those that are present and exceed the risk threshold). COPC are Contaminants of Potential Concern (those that will be looked at in the Feasibility Study). COC are Contaminants of Concern (those identified and addressed in the ROD). This page really references a tool to screen out chemicals for the Risk Assessment.

Groundwater is still a point of contention. MDNR disagrees with USACE about the groundwater path. Therefore, this briefing reflects the Corps position, which is not necessarily agreed to by other agencies.

- Page 7 These are the two biggest, others do exist. 40 CFR 192 references Radium. 10 CFR Part 40 references other radionuclides.
- Page 8 Determined by consulting with County and municipalities. Note: Use (scenario) are not clean up standards.
- Page 9 Unrestricted equals residential. Thorium decays to Radium, and Radium is the only driver. Therefore, risk is very low. Small = >20% of surface area of North County site, below 6 inches subsurface. Coldwater Creek: subsurface criteria are 15/43/50. Roads, etc. based on 80 hrs. per year.
- Page 10 POTW means Publicly Owned Treatment Works
- Page 11 Alternative 2 containment. Alternative 3 Treatment and Removal (move soil from HISS and SLAPS, then treat; same for roads and bridges).
- Page 12 Alternative 4 Institutional Controls (IC's). Alternative 5 removal except for roads and bridges. Alternative 6 remove everything above 5/14/50.
- Page 13 Really only addresses remediation costs
- Page 14 Regulators are EPA and MDNR. EPA's Remedy Review Board will accept written comments from the Committee. Note: roads (e.g. I-270), railroads, and ditches are separated out, unlike the Task Force Report.

The Committee discussed the options. The sense of the Committee was to continue to support the original Task Force Recommendations. When USACE releases it's official recommendation to be made to the Remedy Review Board, the Committee chairperson with the assistance of Tom Binz will draft a letter to the Remedy Review Board on behalf of the Committee so stating the Committee's position.

NEXT MEETING
Friday, January 14, 2000
11:30 am
USACE Trailers on Latty Ave.





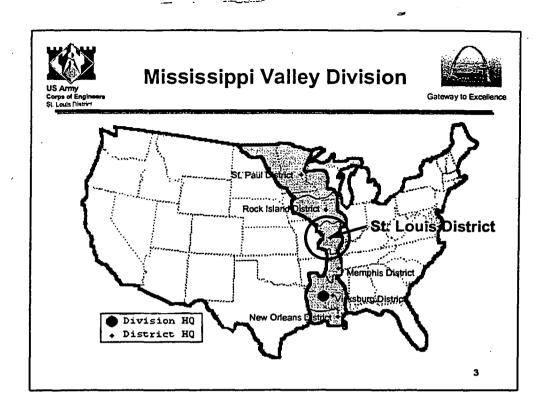
Agenda



Gateway to Excellence

- · Mississippi Valley Division
- Progress Report
- Community Interactions
- Taskers
- Questions

Nov 1999





Progress Report St. Louis Airport Site (SLAPS)



Gateway to Excellence

- Construction Progress
 - Hotspot remediation, backfilling and shipments of soil from the East End continue
 - . 2,600 cyds shipped to date / 40,000 scheduled
 - · Stone and Webster started shipment of asbestos 30 NOV
 - 200 of 1,500 cyds shipped to date
- · North Ditch regrading is underway 10% complete
- · Backfilling portions of the East End
- Rail Shipments off SLAPS and Eva
 - 62 gondola railcars shipped to date in FY 00 (5,235 cyds)
- Radium Pits Design ongoing / remediation begins in MAR 00

Nov 1999



Progress Report Hazelwood Interim Storage Site (HISS)/Latty Avenue



Gateway to Excellence

- HISS Eastern & Railspur Spoils Pile Removal (12,650 cy total).
 - Contractor on board for Eastern Piles
 - Expect Notice To Proceed by 3 JAN 00
 - Contractor & CoE resolving bonding issues
 - CoE continues to resolve GIFREHC issues
 - FY00 removal is 0 cyds to date
 - Supplementary Pile Plans and Specifications due 1 MAR

Nov 1999

5



Progress ReportSLAPS Vicinity Properties



Gateway to Excellence

- Lab delivered to site on SUPERVALU (VP38) property
 - Sewer tie in at SUPERVALU complete
 - Lab to be occupied and operational by 1 JAN
 - · CoE finalizing electrical support with AmerenUE
- VP38 (Supervalu) remediation scheduled 1 MAR start (1,500 cyds)
- · Remediation strategy
 - Completed internal-review of draft prioritization plan
- Utility Company coordination
 - Annual meeting was held 7 DEC
 - · LaClede Gas was the only participant

Nov 1999



Progress Report St. Louis Downtown Site (SLDS)



Gateway to Excellenc

- · IT Corp. design activities
 - Plant 1 Remedial Design Current completion is 9 DEC
 - Expected volume is 1,500 cyds
 - Site preparation work (Slab removal) to begin in FEB 00
 - Subsurface remediation & sheet piling scheduled to start in FEB 00
 - Plant 6E/ 6E1/2 90% Design to MVS 15 DEC
 - Currently doing design for 6E and 6E 1/2
- · IT Corp. remediation efforts
 - Plant 2 began on 6 JAN with slab break up. Subsurface excavation ongoing (8,500) 65% complete.
 - Phase I (Clearing of open excavation) was completed 3 DEC 99
 - Phase II (Remediation of remainder of excavation) began 6 DEC and is expected to be complete 6 FEB 00 - 5,500 cyds are affected
 - Contractor currently remediating the final hotspot in Plant 2
 - Area keeps filling with diesel fuel / CoE is currently testing the fuel
- 906 cyds shipped this FY (13 railcars) / 9,600 scheduled

Nov 1999





Progress Report Other Issues



Gateway to Excellence

- North County Feasibility Study/ Proposed Plan
 - FS/PP comments received from HTRW-CX 1 NOV
 - Issued relevant portions to regulators on 11 NOV
 - Discussions with MDNR, USEPA, DGLS and DOH held on 17 NOV
 - Groundwater TWG meeting was held 26 OCT
 - Technical Planning Process with GWTWG held 9 DEC
 - Formal release for regulator review @ 17 DEC
 - CoE awaiting HTRW-CX Office of Counsel comments
 - USEPA Remedy Review Board in JAN 00
- Site A/E Contract Proposals in
- Finalized FY00 scopes of work
 - SLDS negotiations complete / SLAPS negotiations pending completion
- DoE Program POC's (HQ level) provided by HQUSACE
 - No site contact to date

Nov 1999



Community Interactions



- **Recent Events**
 - Web site on line by January
 - Newsletter distributed in DEC 99
- **Upcoming Events**

Nov 1999



Taskers



- **Old Taskers**
 - Provide a copy of 40 CFR 192 to Mr. Cavanagh (Complete)
 - Provide a more detailed brief on the North County Site FS/PP to the Oversight Committee (Complete)
 - Provide background levels for Radium and Thorium at SLAPS to Ms. Price (Complete)
 - Provide a laboratory tour for the Oversight Committee in JAN 00 (Not Complete)
- **New Taskers**

Nov 1999



Questions



Questions? Questions? Questions?

Questions? Questions?

Questions? Questions? Questions? Questions?

Questions? Questions? **Questions?**

Nov 1999





Agenda



Gateway to Excellence

- Task Force Recommendations
- Scope of USACE Responsibility
- · Baseline Risk Assessment
- · Contaminants of Potential Concern
- ARARS
- Future Land Use.
- · Proposed Cleanup Criteria
- Processes Common in Alternatives 2 through 6
- Alternatives
- Alternative Volume and Cost Comparison
- Upcoming Events

Dec 1999



Task Force Recommendations St. Louis North County Sites Gateway to Excellence



- St. Louis Site Remediation Task Force Report, SEP 96
 - Unrestricted Use Guidelines for:
 - St. Louis Airport Site (SLAPS)
 - SLAPS Vicinity Properties
 - · Coidwater Creek Properties
 - HISS / FUTURA Coatings
 - Balifields
 - Unrestricted use in this case is "the Department of Energy's cleanup standard as it applies to land designated for unrestricted use - thorium / radium concentrations not to exceed 5pCi/g averaged over the first 15cm of soil and 15pCi/g averaged over 15cm thick layers of soil more than 15cm below the surface."

Dec 1999



Scope of USACE Responsibility



- The USACE scope of responsibility at the North County sites is limited to FUSRAP wastes. These are defined in the Federal Facilities Agreement (FFA) with the USEPA. FUSRAP includes the following types of materials.
 - MED/AEC wastes, including but not limited to radiologically contaminated wastes, resulting from or associated with uranium manufacturing or processing activites; and
 - Other chemical or non-radiological wastes that have been mixed or co-mingled with radiologically contaminated wastes resulting from or associated with uranium manufacturing or processing activities.

Dec 1999



Baseline Risk Assessment



Gateway to Excellence

- Characterized risks associated with the sites and established the need for remediation.
 - Prepared to evaluate the risk to human health and the environment if no cleanup was undertaken.
- · PAM and FS Appendix
 - Prepared by USACE to incorporate additional data, guidance and progress of cleanup to date.
- Primary health risks investigated, law USEPA guidance, were cancer and toxic (non-cancer) human health effects
 - Cancer risk estimates were compared with the CERCLA risk range of 10⁻⁴ to 10⁻⁶
 - Hazard indexes were calculated for non-radionuclide chemicals.
 - An Ecological Risk Assessment was performed.

Dec 1999

5



Site Related Potential Chemicals of Concern*



Gateway to Excellence

- · Soils
 - Radiological: Radium, Thorium and Uranium decay series.
 - Surface soil metals: Antimony, arsenic, barium, cadmium, chromium, molybdenum, nickel, selenium, thallium, uranium and vanadium.
 - Subsurface soil: Antimony, arsenic, thallium and uranium.
- Surface Water and Sediments
 - No surface water Contaminants of Potential Concern.
 - Sediments: Radionuclides (Radium, Thorium and Uranium).
- Groundwater
 - No ground water Contaminants of Potential Concern.
 - * Contaminants of Potential Concern, identifying MED/AEC related contaminants that exceed the CERCLA risk threshold, will be identified prior to publication of the FS/PP.

Dec 1999



ARARS



Gateway to Excellence

- Soil criteria for the North County FS/PP was based on Applicable or Relevant and Appropriate Requirements (ARARS) and to show overall protectiveness within the CERCLA risk range.
 - 40 CFR 192 Sets the cleanup standard for mill tailings using Radium 226 as a surrogate (By cleaning up Ra 226 to the standard you have protectively addressed radionuclides (ie. Lead, Bismuth,...).
 - 10 CFR Part 40, Appendix A, Criterion 6(6) Defines the process for deriving cleanup standards for other radionuclides, e.g. Uranium and Thorium, from the 40 CFR 192 Radium standard.

Dec 1999

7



Future Land Use*



Gateway to Excellence

- SLAPS VPs:
 - Residential, Industrial & Recreational
- SLAPS
 - Industrial, Utility
- Coldwater Creek
 - Recreational inside its banks
- HISS/FUTURA
 - Industrial
- · Roads, bridges and Railroads
 - Utility, Transportation
 - * Our ARAR based surface soil criteria are based on residential land use and are protective for all other future land uses.

Dec 1999



Proposed Cleanup Criteria



Gateway to Excellence

Unrestricted Use

Sum of the Ratios of 5pCi/g Ra-226, 14pCi/g Th-230 & 50pCi/g U-238 for both surface and subsurface soils, except for small areas of subsurface soils that would be limited to 15pCi/g Ra-226, 43 pCi/g of Th-230 and 50 pCi/g of U-238.

Commercial / Industrial

 The same as above without the small area constraint for subsurface soils.

Coldwater Creek

- Unrestricted use criteria for soils.
- Sediments under the mean water line are constrained to subsurface soils criteria to preclude future restrictions / management of soil.

Roads, Bridges and Railroads

 Doses will be constrained to less than 100mrem/year for the Utility and Construction workers.

Dec 1999

9



Processes Common in Alternatives 2 through 6



Gateway to Excellence

- · EE/CA removals will be completed.
- Post Remedial Action surveys are conducted.
- · Truck and rail transportation (barge option).
- All soils above criteria will be shipped offsite. No reuse of soils exceeding unrestricted criteria.
- Short term monitoring during removal actions is conducted.
- Soil disposal will be at out of state licensed or permitted disposal facilities.
- Long term monitoring is included in Alternatives (2,3 and 4)
 that leave significant contamination in place to document the
 lack of impact on surface water and useable groundwater.
- Water collected during remedial actions would be treated and released to POTW or to Coldwater Creek

Dec 1999



Land Use for the North County FS/PP Alternatives



Gateway to Excellence

- Alternative 1
 - No further action.
- Alternative 2
 - Release without restrictions: SLAPS VP's and roadsides
 - Supplemental Limit: Areas directly under the road and RR
 - Commercial / Industrial criteria: SLAPS, HISS / FUTURA
- Alternative 3
 - Release without restrictions: SLAPS VPs, HISS / FUTURA & roadsides
 - Supplemental Limits: Areas directly under roads, bridges and RR
 - Commercial / Industrial Criteria: SLAPS

Dec 1999

11



North County FS/PP Alternatives



Gateway to Excellence

- Alternative 4
 - Release without restriction: SLAPS VP's and Roadsides
 - Supplemental Limit: Directly under roads, bridges & RR
 - Commercial / Industrial Use: SLAPS, HISS/FUTURA
- Alternative 5
 - Release without restriction: SLAPS, SLAPS VP's, Roadsides and HISS/FUTURA
 - Supplemental Limit: Directly under roads, bridges and RR
- Alternative 6
 - Release without restriction: All

Dec 1999



North County FS/PP Alternative Cost and Volumes Galeway to Excell



cyds excavated	Cost In \$ Millions
0	\$0.4
335,000	\$298.0
395,000	\$345.0
335,000	\$291.0
385,000	\$305.0
465,000	\$378.0
	excavated 0 335,000 395,000 335,000

Dec 1999



North County FS/PP Upcoming Events



Release to Regulators: DEC 99

USEPA Remedy Review Board: JAN 00

Release to Public: MAR 00 Public Meeting: MAR 00

Dec 1999

A. Document ID Number: Assigned by database $\partial \theta - \partial \theta' = 0$ B. Further Information Required?:
C. Operable Unit (Choose One): USACE St. Louis Sites Downtown North County Madison Sites Inaccessible Areas PRP Oversight Committee D. Site (Optional): SLDS VPs Mallinckrodt SLAPS Mallinckrodt Mallinckrod
E. Area (Optional):
F. Primary Document Type (Choose One): Site Management Records
G. Secondary Document Type (see back of form). Public Metry Monuter Correspondence
H. Bechtel Number: I. SAIC Number:
J. MARKS Number(Choose One): FN: 1110-1-8100e FN: 1110-1-8100f FN: 1110-1-8100g
K. Subject:/Title: Quesight Committee Meetings from 12/10/00
L. Author: Richard Caranagh M. Author's Company: Chan person
N. Recipient(s): (amouttel Mendus O. Recipient(s) Company:
P. Version (Choose One): Draft Final Q. Date: 1-6-00
R. Include in the ARF? S. Include in the AR? T. Filed as Confidential/Privileged?
U. Document Format (Choose one): Paper
V. Filed in AR Volume Number:
W. Physical Location (Choose One): Central Files Records Holding Area Microfilm Vendor Department of Energy In ARF
X. Associated with Document(s):

Secondary Document Types

	Amendments to Record of Decision (ROD) Anomaly Review Board Documents (Management Plan, Correspondence, Standard Operating Procedures Findings)
	Applicable or Relevant and Appropriate Requirements (ARAR) Determinations
\Box	Archives Search Reports (ASR)
\sqcap	Briefing Papers
Ħ	Chain of Custody Forms
Ħ	Community Relations Plan
Ħ	Correspondence
Ħ	Daily Operations Summary/Situation Reports
H	Engineering Evaluation and Cost Analysis (EE/CA) Action Memo
H	Engineering Evaluation and Cost Analysis (EE/CA) Approval Memorandum
Ħ	Engineering Evaluation and Cost Analysis (EE/CA)
H	Explanation of Significant Differences
H	Fact Sheets/Newsletters
H	Feasibility Study (FS) Reports
H	Federal, State, Local Tech. Records
	Final Approved Findings and Determinations
H	Final Remedial Design Documents
H	Freedom of Information (FOIA) Requests
H	Freedom of Information (FOIA) Responses)
H	Health and Endangerment Assessments
H	Interagency Agreements/Memoranda
H	
H	Interim Deliverables Inventory Project Romert (INDR) Riels Assessment Code (RAC)
님	Inventory Project Report (INPR) Risk Assessment Code (RAC)
H	Invoices/Contractor Payments/Cost Repurts Land Grants/Deeds
片	·
H	Mailing Lists News Clippings and Press Releases
H	
H	No Further Action Docs (NOFA)
\vdash	On-Scene Coordinator Reports
H	Proposed Plans for Remedial Action
H	Public Meeting Minutes/Transcripts Public Notices
H	Public notices, Comments Received, Responses to the Comments
H	
H	Published Hearings
H	Record of Decision (ROD) Reference Documents
H	Remedial Action Documents
H	
님	Remedial Investigation (RI) Reports Removal Response Reports (Emergency Evacuation Orders)
님	
뉘	Rights of Entry Documents
\mathbb{H}	Sampling/Analysis Data and Plans
H	Scopes of Work/Contractual Documents Site Descriptions and Chronologies
H	Site Descriptions and Chronologies
님	Site Inspection Documents
\vdash	Site Photographs and Maps
닖	Testimonies Tida Secret Decuments
님	Title Search Documents
닏	Work Logs
닏	Work Plans and Progress Reports
닏	Work Plans/Site Safety and Health Plans and Progress Reports
Ш	Work Register and Logs

04/07/00