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#### DEPARTMENT OF THE ARMY ST. LOUIS DISTRICT, CORPS OF ENGINEERS 8945 LATTY AVENUE BERKELEY, MISSOURI 63134

REPLY TO ATTENTION OF:

#### July 19, 2001

Formerly Utilized Sites Remedial Action Program

SUBJECT: Transmittal of Final Annual Environmental Monitoring Data and Analysis Report for CY00 and Final SLAPS Implementation Report

Mr. Dan Wall U.S. Environmental Protection Agency Region VII, Superfund Branch 901 North Fifth Street Kansas City, KS 66101-2907

Dear Mr. Wall:

Please find enclosed one copy each of two final documents related to the St. Louis District's Formerly Utilized Sites Remedial Action Program (FUSRAP): (1) Annual Environmental Monitoring Data and Analysis Report for CY00, and (2) SLAPS Implementation Report. Due to the volume of data contained in the documents' appendices, they are being provided electronically on CD-ROM at the end of each document.

Also enclosed are responses to Missouri Department of Natural Resources (MDNR) comments to the St. Louis Airport Site (SLAPS) Implementation Report, received in a comment letter dated October 26, 2000 and in subsequent discussions. We have reviewed the final report and confirmed that the MDNR comments were appropriately incorporated into the document.

Copies of these reports are being forwarded to Mr. Robert Geller at the Missouri Department of Natural Resources. If you have questions or require additional information, please call Dr. Greg Hempen at (314) 260-3939.

Sincerely,

Sharon Cotner FUSRAP Program Manager

Encls

## SLAPS Implementation Report – Response to Comments Discussion is based on meeting minutes from the November 3, 2000 Technical Working Group Meeting

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Section	Comment	Response
Page 1-1, 2 <sup>nd</sup> paragraph	Why weren't HISS and VPs included if confirmation of site conditions and assumptions were needed to prepare the FS/PP?	The scope of this document concerned SLAPS; the objective of the Kansas City TPP in 1998 was the SLAPS' evaluation. The only HISS data included is piezometric data (no chemical data from HISS is included). A subsurface characterization for HISS will be conducted after the HISS pile removals are completed.
Page 1-3, Current Site Conditions, 2 <sup>nd</sup> paragraph	It is stated that "more than two-thirds of the land within 0.8 kilometers of SLAPS is used for transportation-related purposesThe remaining land is used for commercial and industrial purposes." What about the residents just north of Latty Ave. and east of Hazelwood Blvd.?	Concur. The following statement has been added: "The nearest residential properties to SLAPS are located approximately 0.6 km (0.4 mi) to the northeast, on Frost Avenue in the City of Berkeley." Additional information concerning residential properties in the area is being provided in the latest draft of the North County Feasibility Study.
Page 1-6, Section 1.7 – Site Geology, 1 <sup>st</sup> paragraph:	<ul> <li>There is a discrepancy between two documents concerning the direction of bedrock dip at SLAPS. According to the subject document, the bedrock dips gently to the north-northwest. This may be a typographical error, because it is stated on page 2-17 of the August 2000 SLAPS Feasibility Study that the bedrock dips to the north-northeast. This inconsistency needs to be resolved. This question is not a significant concern as far as the review of the subject document but may have future implications.</li> <li>1<sup>st</sup> paragraph: "Illinoisan" glaciation should by spelled <i>Illinoian</i> glaciation. The spelling should be corrected.</li> <li>1<sup>st</sup> paragraph: There are two stratigraphic nomenclature errors in this paragraph. The shale unit is incorrectly identified as the Cherokee Shale Formation. The correct name is the Cherokee Group. The limestone unit is incorrectly identified as the St. Genevieve Formation. The correct name is the St. Genevieve is misspelled in several places in this document.</li> <li>5<sup>th</sup> paragraph: Origins of all the soil subunits are described except for Unit 4. An interpretation of the origin of Unit 4 should be provided.</li> </ul>	<ul> <li>Concur. The text has been revised to indicate that bedrock dips regionally to the northnortheast.</li> <li>Concur. The misspelling has been corrected to "Illinoian".</li> <li>Concur. The nomenclature errors have been corrected as suggested and "Ste. Genevieve" has been replaced with "Mississippian Limestone" here and other locations in the document.</li> <li>Concur. The following sentence added concerning Unit 4: "The coarse-grained nature of some of the sediments that make up Unit 4 suggests deposition was in a high energy environment."</li> </ul>



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Section	Comment	Response
Page 2-6, Section 2.3	Please note the wells that have been installed recently.	The discussion in Section 2.3 is limited in scope to the wells installed at SLAPS and CPs during 1998. However, USACE will make sure that the
		description of the conceptual model and site
· .		hydrogeology provided in this document is
		consistent with the additional data provided by the new wells on SLAPS
Page 4-2, Table 4-1	The potential soil IAL values do not correspond to those shown in the FS/PP page D-40.	The Investigation Levels (IAL) values derived from the Kansas City 1998 Technical Planning Process (TPP) for the investigation of SLAPS are not the
	50 pCi/g.	cleanup levels. IALs should be at least as low as the preliminary remediation goals (PRGs). The Implementation Report does not suggest that this is what the FS should have as any remediation goal. IALs are identified to make sure that the detection limits are sufficiently low for later assessments. They are used as a guide for acceptance of field sampling.
		Both the DOE and NRC potential soil IAL subsurface values for total uranium values are shown, but 50 pCi/g is the lower value. The higher value is only used as a reference to evaluate data previously collected by others. The 100 pCi/g value might indicate a need to resample these areas if previous data did not fall within the criteria.
Page 4-10, Table 4-3	The values in the above mentioned table do not correspond to those in Appendix D-14, Draft FS/PP (Nov. 1999).	The NC FS background values for radionuclides provided in Appendix D are based on 78 background soil samples from the North County Site. The background soil values listed in Table 4-3 are based on a more limited dataset (23 background samples from the 1998 soil-sampling program conducted at SLAPS) and so those values are not from the same population as the NC FS background values.





Section	Comment	Response
Page 4-26, Section 4.4.1 - Soil Gas Survey, 4 <sup>th</sup> and 5 <sup>th</sup> paragraphs	It is stated in the 5 <sup>th</sup> paragraph that no soil gas anomalies were detected by the soil gas survey. However, numerous VOCs at very low concentrations were detected at many sampling points according to the information presented in the 4 <sup>th</sup> paragraph. It is unclear why the VOC results are not considered anomalies.	Organics were occasionally detected but not of major magnitude. There was no indication of a near surface soil gas source in the survey area. TCE was not detected in any samples in Soil Gas Survey. An "anomaly" was considered a major concentration (non-dispersed). Low detection limits and the lack of persistence led us to believe there are no VOCs found at significant levels. USACE has revised the "anomaly" statement.
Page 5-2, Section 5.3,5 <sup>th</sup> paragraph	It states, "sampling results confirm that hazardous characteristics are not associated with any of the radionuclide-impacted soils." However in the 2 <sup>nd</sup> paragraph it states that arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, etc. were found above their respective screening levels. These are all RCRA hazardous wastes, and therefore exhibit hazardous characteristics. Due to this fact, it appears these two paragraphs are in conflict. Please clarify.	There are detects of hazardous constituents above IALs, but this does not indicate presence of hazardous waste or indicate hazardous characteristics.
Page 5-3, Section 5.4, 5 <sup>th</sup> paragraph	It states, "TCE and 1,2 DCE were detected above their respective MCLs of 5 $\mu$ g/L and 70 $\mu$ g/L, although at low concentrations." This statement is misleading because on page 4-37, section 4.6.3.1, it states that the highest concentration of TCE found was 840 $\mu$ g/L. This is not a low concentration especially when it is compared to the MCL of 5 $\mu$ g/L.	Concur. The text has been changed as follows: "TCE and 1,2 DCE were detected at concentrations above their respective MCLs of 5 µg/L and 70 µg/L, although at low concentrations at SLAPS. There was a detection of 840 ug/L TCE in B53W17S on the ballfields." IA-1 at SLAPS has shown some TCE at depths that will be removed when USACE take soil actions at West End. USACE will continue to monitor for TCE in ground water, but it is not a COC. USACE will not release water with even moderate TCE concentrations. USACE will remove TCE contaminated, commingled soils in excavations. Discovered sources of TCE will be removed.
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Additional MDNR C	omments:	· · · · · · · · · · · · · · · · · · ·
Page 1-8	Flow in HZ-C is west to northwest. Maps in Figures 1-26 through 1-29 show flow direction is to northeast.	The flow direction indicated by the present figures is correct. The text in the first paragraph of page 1-8 has been revised to state that flow in HZ-C is north to northeast. Previous information used wells completed in other low horizons (not HZ-C). This larger group of data distorted the evaluation of the surrogate (HZ-C) for the Mississippian aquifer.
Page 3-38	Potentiometric surface in lower zone. The highest potentiometric surface is at the eastern end of SLAPS	Concur. The text will be modified to indicate that the highest potentiometric surface elevations for HZ-C are at the western end of SLAPS and the ballfields.
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Mr. Robert Geller Missouri Department of Natural Resources 1730 East Elm Jefferson City, MO 65101

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Sharon Cotner FUSRAP Program Manager

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# FUSRAP Document Management System

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Recipient (s) Dan Wall, Robert Geller	Company (-ies) USEPA, MDNR	Version Final
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# Administrative Record for the Formerly Utilized Sites Remedial Action Program (FUSRAP) North St. Louis County Sites

St. Louis County, Missouri



Volume 1.12c Site Management – Sampling/Analysis Data & Plans

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