

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director • OF NATURAL RESOURCES

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December 4, 2013

Ms. Sharon Cotner FUSRAP Program Manager U.S. Army Corp of Engineers 8945 Latty Avenue Berkeley, MO 63134

RE: Supplemental Missouri DHSS Comments on "Proposed Plan for No Further Action for the Accessible Soil Operable Unit Associated with Group 1 Properties at the St. Louis Downtown Site" Draft Final, dated September 23, 2013

Dear Ms. Cotner:

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Services (DHSS) have finished a review of the above-referenced document. Missouri Department of Natural Resources comments were communicated by our letter of October 8, 2013. DHSS had the following supplemental comments regarding the document:

 DHSS has already presented revised residential risk calculations to the Missouri Department of Natural Resources (DNR) regarding two properties; DT-9 and DT-15. Rev B language for these properties used in Table 5-3, titled "Risk Summary for Hypothetical Residential Land Use at Selected St. Louis Downtown Site Properties Associated with the Inaccessible Soil Operable Unit", indicates that risk for the residential receptor are either "no exposure" or "below background risk". DT-9 and DT-15 are noted as "no exposure". DNR expressed concern over not providing risk calculations for the two properties; hence we provided calculations.

The United States Army Corps of Engineers (USACE) has received a copy of DHSS risk assessments. DHSS requests that USACE respond either to agree with their assessments or provide new assessments for both properties.

2. For Table 5-3, DHSS is concerned over the language "above or below background risk," which denotes to the reader the concept that the USACE is only comparing site risk to background risk. Specifically, the draft final uses the column heading "Is Total Property Cancer Risk Above or Below Background Cancer Risk?" Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) guidance requires both background and site risks be assessed. CERCLA further requires remedial decisions consider risks posed by both site-related and background components of the contaminant, not solely upon whether site-related contamination exceeds or does not exceed background.



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According to the RESRAD report for background within Appendix O of the remedial investigation (RI), background risk maximum for the residential receptor is approximately 8.0 E-04. Table 5-3 compares site-related activity to this value, and identified as either not exceeding or exceeding background. Following CERCLA guidance, risk for background and site-related contamination is to be addressed separately. For the residential receptor, given background exceeds EPAs risk threshold, site-related risk that does not exceed background can exceed EPA's risk threshold when risk is within 1.0E-04 to 8.0E-04 range. Comment 4 provides an example of a site's risk exceeding EPA's threshold yet not exceeding background.

Consequently, Table 5.3 should not compare site risks to background, but identify whether risk from release-related contamination exceeds or does not exceed EPA's threshold of 1.0E-04.

- 3. Background activities of radionuclides presented within the ISOU baseline risk assessment for properties within the PP are higher than those used within reports provided prior to the baseline risk assessment. For example, the activity of radium-226 (Ra-226) in picocuries per gram (pCi/g) is 3.04. Table 3-2 of the SLDS document titled "Background Soils Characterization Report for the St. Louis Downtown Site", March 1999, or Table 2.15 of the document *Baseline Risk Assessment for Exposure to Contaminants at the St. Louis Site*, 1993, which has been referenced for previous SLDS documents, reports background activity for Ra-226 as 2.78 pCi/g. Other Manhattan Engineering District/ United States Atomic Energy Commission (MED/AEC) radionuclide background activity values have increased as well. The significance of this increase is lower activity that is identified with MED/AEC activity, and ultimately lower dose and risk from site-related activity. Please provide in response to comment why and how background activity was revised for the inaccessible soils operable unit remedial investigation.
- 4. Section 3.8.9, West of Broadway Property Group..., improperly notes inaccessible soils to be non-impacted. Appendix O, RESRAD BRA, provides risk assessments for both inaccessible and accessible soils for the hypothetical resident, both of which demonstrate risk exceeding the 1.0E-04 cancer risk threshold. Total risk for all radionuclides combined is approximately 5.98 E-04 for inaccessible soils, and 6.69 E-04 for accessible soils. It is unknown whether background activity was included in the estimated risk or not. If risk is limited to MEC/AEC-related contamination, then risk exceeds EPA's threshold; the document should report as such. If the calculation includes background, then background activity should be removed from the calculations. Comparison of MED/AEC-related risk to EPA's threshold should then be made.

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Thank you for giving us the opportunity to review and comment on this document. If you have any questions or need further clarification, please call me at (314) 877-3047. Address any written correspondence to my attention at P.O. Box 176, Jefferson City, MO, 65102-0176.

Sincerely,

HAZARDONS, WASTE PROGRAM

Daniel A. Carey Remediation and Radiological Assessment Unit

DC: dac



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