



REGION 4
ATLANTA, GA 30303

ENVIRONMENTAL COMPLIANCE &

June 4, 2025

JUN - 4 2025

Mr. Matthew Baker, SRS Remedial Project Manager
Remediation and Deactivation & Decommissioning Division
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

AREA COMPLETION PROJECTS

EPA Comments: Addendum to the Site Evaluation Report for the Spill on 2/1/57 of Unknown of Seepage Basin Pipe Leak from 904-44G (NBN) (WSRC-RP-2003-4049, Revision 0, June 2003) (U) (SRNS-RP-2023-00689, Revision 0, January 2025) OU61

Dear Mr. Baker,

The U.S. Environmental Protection Agency, Region 4 (EPA), has reviewed the Site Evaluation Report for the 2/1/57 Spill of 904-44G NBN. EPA comments are attached.

If you have any questions or require additional information, please contact me at (404) 431-1340.

Sincerely,

JON RICHARDS Digitally signed by JON RICHARDS
Date: 2025.06.04 15:52:24 -04'00'

Jon Richards
FFA Remedial Project Manager
Superfund & Emergency Management
Division

cc: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDHEC

GENERAL COMMENTS

1. It is uncertain why the cutoff date for the conduct of the streamlined human health risk assessment (HHRA) was September, 2023, and the Report is dated 2025. Several iterations of the EPA Regional Screening Levels (RSLs) have been issued since then, and it is EPA's policy to use the most recent RSLs for risk assessment screening purposes. *Please update the Report to use the most recent (i.e., November 2024) RSLs to screen for constituents of potential concern (COPCs) and calculate risks, or explain why September 2023 values have been used.*
2. The streamlined HHRA does not provide any discussion of how 95% upper confidence limits on the arithmetic mean (95UCLs) were calculated nor does it mention the software used to calculate the 95UCLs. *Please revise the Report to discuss how the 95UCLs were calculated and present the software output in an appendix.*
3. Because only constituent maximum detections are shown in the screening step presented on Table 4, Human Health COPC Screening for 904-44G Spill Release Area (0-1 ft), there is no indication of whether the detection limits are sensitive enough to screen the COPCs. Therefore, *please revise the Report to include screening of non-detected constituents against the RSLs/Preliminary Remediation Goals (PRGs) shown on Table 4 and include the detection limits for each constituent.*
4. EPA prefers the evaluation of residential soil exposure to be conducted on the whole soil column in the event that during site redevelopment, subsurface soils are brought to the surface; however, only exposure to surface soils has been considered in this streamlined HHRA. Although it is understood that the site will remain industrial, and that residential exposure was only used for screening purposes, the maximum detection used for screening should be derived from data spanning the full soil column. Therefore, *please revise the Report to screen residential exposure using both surface and subsurface data.*
5. Lead was not evaluated properly. First, EPA's Office of Land and Emergency Management (OLEM) published *Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities* in January 2024 to reduce the residential RSL to 200 milligrams per kilogram; if updated RSLs from November 2024 are used, then this screening level should also be updated. Second, as per EPA risk assessment methodology, a hazard quotient (HQ) for lead is not calculated (or added to other HQs to derive a hazard index (HI)). Rather, lead exposure is modeled using either the Integrated Exposure Uptake Biokinetic (IEUBK) model for residential child receptors or the Adult Lead (Soil) Methodology (ALM) for adult workers and compared to a target blood lead level. Therefore, *please revise the Report by removing the lead HQ calculation/addition to the HI and use the appropriate model(s) to evaluate potential lead exposure hazard.*
6. The range of background concentrations for each considered constituent in the refinement step (Section 4.1.5) is not presented. *Please either revise the text to include this for each constituent or add it to Table 4, Human Health COPC Screening for 904-44G Spill Release Area (0-1 ft).*
7. The point of compliance (POC) wells that are required for groundwater monitoring (see Section 2.2, Point of Compliance Well Clusters) and shown on the site figures are identified in the figure legends as "GSA Stations;" however, the abbreviation GSA is not defined in the figure legends or in the List of Acronyms and Abbreviations. *Please revise the Report to provide the definition of GSA.*
8. It should be noted in the Uncertainty Analysis that the evaluation of noncarcinogenic hazard relative to the RSL, as shown in Section 4.1.4, Risk/Hazard Calculation, PDF Page 15 of 49 is overly conservative. The noncarcinogenic RSL is based on child exposure and may overestimate risks to an adult receptor. Therefore, *please revise the Report to discuss the potential for overestimating noncarcinogenic hazards by comparing the exposure point concentration to the RSL.*

SPECIFIC COMMENTS

1. **Section 4.1.5, Refinement of Constituents of Concern, PDF Page 22 of 49:** *Please refer to the Excess Lifetime Cancer Risk (ELCR) range of $1E-04$ to $1E-06$ as the “risk management range” (not the “target risk range”), and revise the text accordingly.*
2. **Table 4, Human Health COPC Screening for 904-44G Spill Release Area, PDF Page 45 of 49:** *It is uncertain why some of the human health screening values shown on the table are “0.1 x RSL” and others are “RSL.” There is no accompanying text discussing this and the selection of the constituents that are 0.1 x RSL vs. RSL appears to be arbitrary. Please revise the table notes to explain why this was performed, and note that EPA prefers screening to target hazard quotient (THQ) = 0.1 for sites with multiple contaminants of concern.*
3. **Table 5, Residential Risk/Hazard Estimate for 904-44G Spill Release Area (0-1 ft), PDF Page 46 of 49:** *There are three issues with this table. First, arsenic and chromium also have noncarcinogenic properties that are not included in the HI. Second, the units of the exposure point concentration (EPC) are assumed to be mg/kg but are not shown on the table. Third, the RSL = 1 is not identified in the table notes. Please revise the table to include arsenic and chromium in the HI calculation, and add the units of the EPCs and the identification of the RSLs in the table notes.*