



MEMORANDUM

TO: James L. Folk, Jr.
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FROM: Susan Fulmer, P.G., Manager **Susan B. Fulmer** Digitally signed by Susan B. Fulmer
Federal Remediation Section Date: 2022.02.18 14:47:52 -05'00'
Division of Site Assessment, Remediation, and Revitalization
Bureau of Land and Waste Management

DATE: February 18, 2022

RE: Liquid Waste System Plan, SRR-LWP-2009-00001, Revision 22, dated September 21, 2021.

The following comments and questions were generated during the Department's review. Please contact me if you have any questions or need to discuss further.

General Comments

1. This Liquid Waste System Plan (LWSP) assumes that there are no equipment failures other than the DWPF Melter replacement. Given the aging infrastructure at SRS, this seems overly optimistic. Even the last sentence in the last paragraph in Section 3.2, South Carolina Environmental Laws and Permits, on page 8 implies that some of the older facilities will be operated as part of a complex set of interdependent facilities which could result in additional force majeure events. Contingencies for equipment failure and down time should be factored into the assumptions in LWSP. This, in turn, will aid in the development of revised and achievable milestones for liquid waste to be listed on Appendix L of the Federal Facility Agreement.
2. This LWSP does not address preventive maintenance for SWPF nor the impact of preventive maintenance for other SRS facilities, such as DWPF and SPF. See Specific Comment #7.

Specific Comments

1. Section 1, Executive Summary, page 1, fifth paragraph. The Plan forecasts that salt processing at SWPF will be completed in 2033. Appendix C1, Sludge Processing, states that a Melter Replacement Outage will occur from October 2028 through January 2029. It does not appear that the Melter Replacement Outage was accounted for in determining the SWPF processing. Based on the projected waste processing information from the Plan, the enclosed table indicates salt waste processing would be completed in November 2034. See the attached table of projected SWPF processing based on this LWSP.

2. Table 1-1, Results of Modeled Cases, page 3. Please provide the date in which normal H-Canyon waste will discontinue in the ABD case.
3. Section 2.3, Risk Assessment, page 7. Under the second bullet, Aging Infrastructure, might one be able to consider a plausible amount of downtime due to previous problems encountered as a result of this risk?
4. Section 2.3, Risk Assessment, page 7. Under the last bullet, DWPF Recycle, it would seem as if the DWPF recycle should be accounted for in the system plan until a final treatment path has been determined.
5. Section 4.3, DWPF Operations, page 13. The second paragraph states that the plan is based on 276 canisters per year to match the SWPF production rate. Why would the canister rate not be based on the total influent to DWPF? Perhaps reword for clarification.
6. Section 4.3, DWPF Operations, page 14. The first paragraph under the section for Two-step Production Improvement Approach states that process improvements are planned for the DWPF feed preparation system required to support a feed rate greater than 7.2 Mgal per year. Are these improvements adequate to support a feed rate of 9 Mgal per year?
7. Section 4.3, DWPF Operations, page 14. The third paragraph under the section for Two-step Production Improvement Approach states that there will be two one-week outages every year for planned maintenance and a two-week outage every year for a site wide steam outage. Does this also mean that SWPF will be shut down four weeks each year?
8. Section 4.3, DWPF Operations, page 14. The fourth paragraph under the section for Failed Equipment Storage Vaults and Melter Storage Boxes stated that the construction of MSB3 is forecast to be completed in FY21. Was this construction completed in FY21?
9. Section 4.5.3, Ancillary Structure Operational Closure and Stabilization, page 21. The first sentence in the last paragraph states, "the Federal FFA..." Delete "Federal."
10. Section 4.5.3, Ancillary Structure Operational Closure and Stabilization, page 21. The last sentence of this section states the operational closure of the 1F Evaporator and the associated 242-3F Concentrate Transfer System are planned in the near term. What is the timeline for closure of these ancillary structures?
11. Section 4.6.2, DWPF Recycle Handling, page 21. Why would one not assume the worst case of 3.2 Mgal/yr for conservatism for this system plan? Also, why would it no longer be accounted for after FY26 if a disposition path has not been finalized?
12. Section 6.9, Saltstone Disposition, page 33. The second paragraph in this section states that SWPF feed of up to 13Mgal/yr is expected. How long would SWPF be operated at this processing rate? Can DWPF, SPF, and SDF support operation at this level of waste processing?

13. Appendix B1, Tank Farm Influent and Effluents, page 39. The ETF facility listed in this table should be ETP. Footnote C states that after FY23, DWPF recycle will be treated by the ETP. Should this footnote say "after FY26"? Please note, this waste stream will need to be listed in the NPDES permit as one of the waste streams discharged at Outfall H-16 when this change occurs.
14. Appendix B2, Tank Farm Influent and Effluents, page 47. The ETF facility listed in this table should be ETP. Footnote C states that after FY23, DWPF recycle will be treated by the ETP. Should this footnote say "after FY26"? Please note, this waste stream will need to be listed in the NPDES permit as one of the waste streams discharged at Outfall H-16 when this change occurs. Additionally, why are some of the effluent values for DSS to SPF, Sludge to DWPF, and Total Inventory different than the values in Appendix B1 for FY2021 and FY2022?
15. Appendix B2 - Tank Farm Influent and Effluents (ABD Case), page 47, footnote b. The last sentence is incomplete. The sentence should read, "The H-Canyon forecast for these materials will be included in future versions of this Plan, as it is made *available*."

SWPF PROCESSING TANK WASTE

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
MONTH													
JAN		500	750	750	750	750	750		750	750	750	750	750
FEB			750	750	750	750	750	750	750	750	750	750	750
MARCH		150	750	750	750	750	750	750	750	750	750	750	750
APRIL		300	750	750	750	750	750	750	750	750	750	750	750
MAY		500	750	750	750	750	750	750	750	750	750	750	750
JUNE		750	750	750	750	750	750	750	750	750	750	750	750
JULY		750	750	750	750	750	750	750	750	750	750	750	750
AUG		750	750	750	750	750	750	750	750	750	750	750	750
SEPT		750	750	750	750	750	750	750	750	750	750	750	750
OCT	500	750	750	750	750	750		750	750	750	750	750	750
NOV	500	750	750	750	750	750		750	750	750	750	750	147
DEC	500	750	750	750	750	750		750	750	750	750	750	
TOTAL(YR)	1500	6700	9000	9000	9000	9000	6750	8250	9000	9000	9000	9000	7647
FY16-FY22	11153												
TOTAL	12653	19353	28353	37353	46353	55353	62103	70353	79353	88353	97353	106353	114000

Note that this scenario assumes a melter replacement.

The total projected to be processed by SWPF is 114 Mgals per LWSP 22.