Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

January 23, 2023

Dr. Gregg Murray, Chairperson
Savannah River Site
Citizens Advisory Board
P. O. Box A
Building 730-B, Room 3121
Aiken, SC 29802

Dear Dr. Murray:

SUBJECT: Citizens Advisory Board (CAB) Recommendation Number 375 – Use All Chemicals for Cost Reduction and Reducing the Health Risk to Employees, Findings Response

Thank you for your November 15, 2022, letter regarding chemical cost reduction and reducing the health risk to employees. Specifically, addressing the following recommendations:

> *"When making changes to the process, the DOE considers a timeline that will minimize waste material, efficiently utilize financial resources, and mitigate safety risk to employees and avoid the transportation of unused chemicals as a result of process changes."*

> *"Vendor should be contacted prior to removing chemicals from processes, for assistance in the planning for retrieval and transportation of remaining chemicals in process changes, in an effort to meet transporting per vendor requirements and reduce risk and mitigate cost."*

The Department of Energy - Savannah River (DOE-SR) fully accepts the above two recommendations. Both Savannah River Site (SRS) major contractors, Savannah River Nuclear Solutions and Savannah River Mission Completion, LLC (SRMC), completed a comprehensive analysis, which was reviewed by DOE, to address the efficacy of the site's chemical material dispositioning by operating facilities. Based on the results of this analysis, updates will be made to the SRS policy "13B 2.4 Excess Chemical Program." Language will be added to ensure equivalent consideration is given to dispositioning all chemical quantities (small to bulk). This will result in planning for waste minimization of chemicals early in the procurement process reducing overall risk (cradle to grave planning). Additionally, financial impacts language will be added to our site policy to consider the economics of chemical disposition post consumption when practical without impacting process and safety. These changes should be implemented by early fall, to allow for current revision cycle times of site procedures. Lastly, the second recommendation is currently implemented as a standard practice at the site, when it comes to planning and executing chemical removal. In the Formic Acid case, early dialogue occurred between SRMC and three vendors to develop an early plan to disposition the acid. Numerous ideas were generated to retrieve and transport the chemical, but in the end, the viable approach was to pump the tank, pick up the chemical in totes, and transport for disposal.

"Additionally, DOE-SR should evaluate the possibility of donating unused chemicals to other research institutions."

DOE-SR fully accepts the recommendation of donating chemicals. SRS currently takes into consideration this approach by evaluating numerous opportunities to transfer/transport excess chemical materials quickly, safely, and economically to other benefactors. Unfortunately, research institutions and various other corporations sometimes require high purity and the use of low volumes. In the Formic Acid case, the chemical was in a storage tank and was deemed to have a purity uncertainty. Additionally, there was a risk of contamination during transfer and transport by another business. A few other factors limiting this initiative include permits/licensing, equipment, and/or storage issues at those businesses. Nevertheless, SRS currently has a Chemical Safety and Lifecycle Management Program that has been able to coordinate and distribute 67,732 pounds of excess chemicals to various companies thus far.

DOE-SR remains committed to fulfilling the mission of the Liquid Waste Disposition Program in a safe and responsible manner. As we continue to work through our processes, DOE-SR will engage the CAB with our proposed path forward. As always, we welcome input from the public as we continue to work on cleanup and waste disposition activities at the SRS.

Sincerely,

Michael D. Budney

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Michael D. Budney
Manager
Savannah River Operations Office

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