Mrs. Phyllis P. Britt
Savannah River Site Citizens Advisory Board
P.O. Box A
Aiken, South Carolina 29802

Dear Mrs. Britt:

SUBJECT: Citizens Advisory Board (CAB) Recommendation 381 - Implementation of
Artificial Intelligence and Machine Learning Program Model for
Decommissioning Process Enhancement (Your letter dated, January 30, 2024)

Thank you for your recommendation about utilizing Artificial Intelligence (AI) and Machine
Learning (ML) in the decommissioning process at the Savannah River Site (SRS). The
Department of Energy - Savannah River Operations Office (DOE-SR) partially accepts this
recommendation and provides the following response.

CAB Recommendation:

The SRS Citizens Advisory Board recommends:

1. *Create a dedicated task force to oversee the development and implementation of
   this AI and ML program model. This task force should consist of Savannah River
   National Lab (SRNL), experts in AI, ML, environmental science, and site
   management.*

In December 2023, DOE announced the creation of the new Office of Critical and
Emerging Technology to leverage the Department's wide range of assets and expertise to
accelerate progress in areas such as biotechnology, quantum computing, and AI. Critical
and emerging technologies (CET) have broad potential applications throughout DOE, but
also pose significant risks, and the Office of Critical and Emerging Technology ensures
that DOE's efforts focus on helping to solve critical science, energy, and security
challenges.

DOE's new office serves as a single point of contact on CET at the Department, and they
have a team in place focused on clean energy initiatives and dedicated to identifying
opportunities across the DOE Complex for safely and constructively implementing AI to
enhance efficiency while satisfying all cybersecurity concerns. The team is currently
conducting a pilot project at the Pacific Northwest National Laboratory in Richland, WA.
Creating a separate task force at SRS would be redundant to that effort; however, DOE-
SR recently met with the team and will remain actively engaged to follow their progress
and assist with additional implementation opportunities at SRS when applicable.

2. *Implement an advanced AI and ML program model to streamline and optimize
   the decommissioning process at SRS.*

Security is a top priority at SRS, and the nature of AI and ML requires extra diligence prior to any implementation of it on Site. Savannah River Nuclear Solutions, LLC (SRNS) has begun exploratory efforts into the use of AI, and to date, the Information Technology department has developed a high-level policy establishing the appropriate governance and cyber compliance framework. SRNS is identifying technical resource capabilities, with a focus on leveraging in-place solutions delivered from the Microsoft Azure AI services framework.

While opportunities to use AI to facilitate the early stages of the decommissioning process may be identified moving forward, at SRS we currently make all decommissioning decisions collaboratively with the Environmental Protection Agency and the South Carolina Department of Environmental Services, and do not anticipate any changes to that process at this time.

If you have any questions, please contact Avery Hammett at (803) 952-7805.

Sincerely,

Michael D. Budney
Manager
Savannah River Operations Office

cc:
Kelly Snyder, DFO, DOE-HQ
James Tanner, DDFO, DOE-SR