January 27, 2026
Savannah River Site (SRS) Citizens Advisory Board (CAB)
Full Board Meeting Summary
Advanced Manufacturing Collaborative

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Tuesday January 27 Attendance

CAB Attendees

Marty Ball	Phyllis Britt	Hazel Cook
Deborah Creech	Scott McKay	Tonya Moton
Dell Priester	Willie Priester	Kim Ray
Kenneth Sajwan	John Thomas	Hubert Van Tuyll

SRS Personnel

Edwin Deshong, DOE-SR	James Tanner, CAB DDFO, DOE-SR	John Clark, DOE-SR
Jansen Simmons, SRNS	Steven Grant, DOE-SR	Monte Volk, DOE-SR
Mike Borders, SRMC	Karen Morrow, DOE-SR	Colleen Davis, SRNS
Bert Crapse, DOE-SR	Gene Rhodes, SREL	Catelyn Folkert, SRNL
Emily Saleeby, SRMC	Mike Serrato, SKLS	

SRS CAB Support Staff (S&K Logistics)

Audrey Barron, Communications Coordinator	Juanita Campbell, CAB Administrator	Stephanie Kemmerlin, Coordinator/Program Analyst

Agency Liaisons & Public

Jon Richards, EPA	Heather Cathcart, SCDES	Madeleine Kellett, SCDES
Alyssa Raynor, SCDES	Susan Fulmer, SC DES	Anita Brown, SCDES
Pooja Patel, GA DNR	Gregg O'Quinn, SCDES	Crystal Robertson, SCDES
Bethany Jameson, SCDES	Richard Burnett, SCDES	Shelly Culpepper, GA DNR
David Rose, public	Marcus Ray, public	

Meeting Summary
SRS CAB – Full Board Meeting
Advanced Manufacturing Collaborative
4345 Trolley Line Road, Aiken, SC
January 27, 2026

Meeting began at 9:00 AM Eastern Standard Time

Meeting Introduction: Juanita Campbell, CAB Facilitator

Ms. Campbell opened the January Full Board meeting by welcoming everyone to the Advanced Manufacturing Collaborative. She reminded everyone of several housekeeping items and then had everyone in the U-shape introduce themselves. She then provided a thorough overview of the meeting guidelines and reviewed the agenda, noting that Dr. Green would be unable to attend due to a scheduling conflict.

Chair Update: Phyllis Britt, CAB Chair

Ms. Britt welcomed everyone to the January CAB Meeting. She reflected on her six-year tenure with the Savannah River Site Citizens Advisory Board (CAB), highlighting its evolution and challenges. She began by recounting her initial exposure to the CAB in its early days, noting technical complexities and engaging community dynamics. Upon retirement, she joined the board in March 2020, coinciding with the onset of the pandemic, which necessitated a transition to online meetings. This shift underscored the importance of in-person interactions for clarity and collaboration. She observed a subsequent period of reduced participation due to changes in diversity requirements at the Department of Energy (DOE) headquarters, which left only six members making key recommendations, something she found unsettling, given the board's responsibility to the broader public. She noted that the CAB later regained stability and effectiveness under experienced leadership, enabling lessons from national interactions and symposia to inform their perspective. Throughout her tenure, she emphasized the unique position of the Savannah River community, where public consensus often reflected satisfaction with operations, resulting in challenges in generating CAB participation. She also expressed concerns about the cessation of community-based meetings, which had previously fostered outreach and engagement in underrepresented areas. In closing, she praised the DOE's technical and staff support, stressing its value in addressing member questions. While acknowledging unmet goals, she expressed optimism for the CAB's future and commended the current membership's commitment. Her parting advice was to remain inquisitive, as understanding drives impactful recommendations, ultimately benefiting both the Savannah River Site and its surrounding community.

Environmental Management (EM) Manager Update

Mr. Edwin Deshong welcomed everyone to the Advanced Manufacturing Collaborative (AMC). He highlighted significant progress and plans at the DOE Savannah River Site (SRS), beginning with acknowledgments of the team's efforts. Exciting advancements were discussed, including the Savannah River National Laboratory's (SRNL) progress on the MK18A process, which is 50% complete, and its critical role in evaluating AI applications for environmental management under the Genesis mission. Funding for FY 2026 was secured through HR6938, supporting cleanup of Cold War-era contamination. Operational progress includes ongoing nuclear materials management, with L Area storing used fuel, H Canyon completing its first dissolution batch while managing FCA materials for future vitrification, and K Area completing 17 down-blends of surplus plutonium for FY 2026. Transuranic waste shipments to WIPP are underway, with 11 out of 38 scheduled shipments completed. The liquid waste program achieved breakthroughs, such as doubling filtration capacity, enhancing facility flexibility, and modernizing control systems. Construction advancements were noted for Salt Disposal Units (SDUs) 10, 11, and 12. Area completion projects met all FY 2025 milestones and began work on 74 FY 2026 commitments, achieving over 4,267 cumulative milestones since 1993. Other updates include progress on decommissioning Building 235F, with no field activities planned for FY 2026, and D Area Phase 1 deactivation and decommissioning (D&D) tasks completed in FY 2025, with Phase 2 slated for completion by March 2026. These achievements underscore the site's commitment to cleanup, operational excellence, and future readiness.

EM Manager Update Q&A

There were no questions for Mr. Deshong.

Agency Updates

Mr. Jon Richards, with the U.S. Environmental Protection Agency (EPA) noted his pleasure in attending and shared updates on the EPA's Superfund division in Region 4, announcing new division director Hunter Johnson, who transitioned from leading the chemical lab near UGA in Athens. He also highlighted the importance of the division director role, as they oversee final decisions on cleanup projects and five-year reviews for remedial actions, which are critical for ongoing oversight of residual contamination. Savannah River, with its numerous past remedies, conducts a five-year review annually, with the most recent completed in November. Richards also discussed a planned site tour for new leadership, including Johnson, to familiarize them with federal facility operations and collaborative efforts with DOE and the state of South Carolina. He emphasized that Savannah River stands out as a model of effective collaboration with minimal issues compared to other regional facilities. Additionally, he mentioned a recent meeting with the regional administrator, who is engaging directly with staff to address concerns, demonstrating growing support and interest in SRS operations.

Ms. Susan Fulmer from South Carolina Department of Environmental Services (SC DES) provided updates since the last CAB meeting in September, highlighting several key activities. A quarterly Environmental Surveillance and Oversight Program (ESOP) meeting with SRS was held in October, and the 2024 ESOP report was published online in December. In October, the Resource Conservation and Recovery Act (RCRA) permit modification for SRS became effective, including changes related to M Area met lab, solvent storage tanks, the sanitary landfill, and mixed waste facilities. Ongoing inspections included monthly ambient stream and Saltstone facility monitoring, as well as drinking water compliance reviews in October and December. Additionally, the DES approved Appendix E (long-term projections) of the Federal Facility Agreement (FFA) in December and is reviewing several other appendices with updates expected soon.

Ms. Shelly Culpepper from Georgia Environmental Protection Division (EPD) provided updates on activities on the Georgia side. These updates included upgrades they have made to the mobile radiation lab's equipment and internet services, as well as a review and update of environmental sampling cabinets, some of which are outdated and require relocation.

Agency Updates Q&A

Mr. Ball inquired about potential changes in EPA requirements and reporting.

Mr. Richards clarified that these changes do not affect federal facilities like Savannah River, as they typically pertain to air or water permits for other types of facilities. Regarding the Superfund program, he noted no significant limitations under the current administration, though the agency has faced staff losses due to buyouts, particularly among hydrologists and risk assessors, with no replacements likely in the near term.

Mr. Ball then asked about changes to reporting requirements.

Mr. Richards confirmed there have been none for the Superfund program but could not speak to potential changes related to RCRA, air permits, or private sites.

There were no questions for Ms. Susan Fulmer, SCDES, or Ms. Shelly Culpepper, GA EPD.

Low-Level Waste Operations and Design Considerations Update: Steven Grant, DOE and Jansen Simmons, SRNS

Mr. Steven Grant provided an in-depth overview of the management and operations of the Low-Level Waste (LLW) program at the Savannah River Site (SRS). He stated he is responsible for DOE's solid waste program oversight, and described the regulatory framework guiding LLW disposal, including the Atomic Energy Act of 1954 and DOE Order 435.1, which outlines specific requirements for waste disposal. The process is highly controlled, involving performance assessments (PAs) and reviews by the Low-Level Waste Disposal Facility Federal Review Group (LFRG). These assessments ensure compliance with safety and environmental standards.

The presentation explained waste classification, focusing on what qualifies as low-level waste (e.g., contaminated gloves, personal protective equipment, or equipment with low radioactive contamination). The discussion also emphasized the modeling of local environmental features, such as rainfall, aquifers, and fault lines, to understand long-term impacts on disposal systems.

Mr. Jansen Simmons provided information about the detailed day-to-day operations at the solid waste management facility, including the design and use of various disposal units such as engineered trenches, slit trenches, and concrete vaults, both Low-Activity Waste Vaults (LAWV) and Intermediate-Level Waste Vaults (ILV). He described the facility's graded approach to disposal, choosing cost-effective and efficient methods while maintaining safety and compliance. He also highlighted the importance of balancing disposal volume and radiological inventory to maximize trench and vault capacity, as well as the facility's use of software tools (CWTS) to ensure that only compliant waste is accepted.

Both speakers emphasized rigorous oversight, collaboration across DOE sites, and ongoing monitoring and experimentation to verify and improve assumptions about waste behavior over the long term. The facility's operations are designed to ensure safe, responsible waste management for decades, with features like groundwater monitoring, interim and final covers, and waste decay adjustments factored into facility planning.

In summary, the SRS LLW program operates with a comprehensive, highly regulated system that prioritizes safety, environmental stewardship, and long-term planning for waste disposal.

Low Level Waste Operations and Design Considerations Update Q&A

Mr. Priester asked how long does the performance assessment review take, and how many people are involved?

Mr. Grant responded by saying that reviews typically take about 8 months with a team of eight core reviewers, each supported by others in specific sections. The goal is to finalize updates to the Disposal Authorization Statement (DAS) by the end of the fiscal year. Reviews are part of a 10-year cycle, ensuring all changes and findings are incorporated while operating under the current DAS.

Mr. Priester then asked how often waste is turned away?

Mr. Simmons stated that it rarely happens. Generators follow rigorous preparation protocols, including weeks-long waste certification reviews. In 8 years, fewer than 10 shipments were rejected pre-emptively for issues such as void space, liquid content, or exceeding low-level waste criteria. Corrected shipments are usually accepted later, with only 2–3 permanent rejections.

Ms. Ray inquired about tritium waste relocation and its storage duration.

Mr. Jansen confirmed the waste was relocated in 2007 after being stored for approximately 12–13 years, equating to one tritium half-life.

Ms. Ray followed up by asking if AI models are used for waste re-evaluation.

Mr. Simmons explained that their evaluations are performed manually, involving a minor mining campaign a few years ago. The process includes exporting waste data from SEWIT software, applying manual decay corrections, and using peer-reviewed certified engineering calculations to identify containers that meet compliance for relocation to earthen trenches. Initially, around 100–150 containers were deemed compliant for movement, but most were buried too deep in the disposal cells to be accessible. Operators prioritized the 30 most accessible containers in the front rows to minimize disruption. Plans exist to reevaluate containers after another 10–15 years, allowing further decay and improved access to deeper containers as compliance thresholds are reached.

Ms. Jackson asked how deep are the slit trenches?

Mr. Simmons stated the trenches are 20 feet deep. Excavation deeper than 20 feet requires certified calculations from a professional engineer, as the depth is close to the assumed groundwater level.

Ms. Jackson also asked if any solution is applied to the material for disposal, or does time handle the process?

Mr. Simmons stated that time is just the main degradation there. The model takes account for the time to provide the decay of the isotopes.

Mr. Grant explained that there is no treatment applied to the waste after it arrives. Decontamination is performed beforehand, and once the waste is placed, no further processing occurs—it remains in place to naturally decay over time.

Ms. Jackson asked if waste materials are separated, such as rubber, glass, or steel?

Mr. Simmons explained that waste is generally combined unless specific properties necessitate segregation to prevent groundwater migration. Rubble waste is typically disposed of in slit trenches.

Ms. Jackson then inquired about disposal costs.

Mr. Grant estimated costs at $30–$35 per square foot or over $1,000 per cubic meter due to the large volume of material being processed.

Mr. Thomas asked about the difference between trenches being compacted versus filled with grout.

Mr. Simmons explained that intermediate-level vaults (ILVs), made of concrete, are filled with grout to encapsulate waste. In contrast, earthen trenches undergo dynamic compaction after interim closure to minimize void space and subsidence. However, certain areas with sensitive waste forms do not receive compaction due to structural considerations.

Mr. Thomas asked how is waste compacted?

Mr. Grant explained that compacting involves systematically pounding the ground with a heavy weight lifted by a crane, followed by backfilling—a tedious process.
He highlighted the precise tracking of containers within disposal areas, such as intermediate-level vaults (ILVs) and engineered trenches, allowing quick retrieval of specific containers if needed.

Mr. Thomas referenced the bamboo experiment, noting its reputation for persistent growth.

Mr. Grant explained that the experiment aims to determine if bamboo can suppress invasive pine tree growth, which poses long-term challenges for waste site management. While bamboo can hold back pine trees in the short term, over time, trees may migrate into bald spots. This experiment, part of planning for site closure over 100 years in the future, is already underway, with researchers monitoring a bamboo field to assess its effectiveness.

Mr. Thomas asked what happens to trenches over time and the fate of low-level waste?

Mr. Simmons explained that the performance assessment (PA) model accounts for a timeline that includes waste disposal through 2065, a 100-year interim closure period, and a 1,000-year performance monitoring period. The PA assumes scenarios such as potential loss of institutional control where individuals, unaware of waste operations, might inhabit the area. To protect such individuals, strict limits are imposed on waste disposal quantities, ensuring minimal impact even under worst-case scenarios. The model credits isotope decay over time and employs overly conservative assumptions to ensure long-term safety.

Ms. Jackson asked if underground disposals or associated water receive any treatment and if they affect infrastructure like pipes?

Mr. Simmons explained that there is no direct treatment of either the waste or water that may interact with it. Waste is disposed of above the groundwater level, and the performance assessment (PA) accounts for several protective layers to limit isotope migration. Should isotopes reach groundwater, the PA models their dispersion toward aquifers and evaluates their contamination potential based on DOE limits. The process involves backward engineering to ensure disposal operations adhere to strict curie content limits, even under worst-case scenarios, thereby minimizing individual health risks without requiring direct treatment.

Liquid Waste Post Outage Processing Update: Mike Borders, SRMC

Mike Borders, the Chief Operations Officer, highlighted the progress and improvements in managing high-level liquid waste at the site, focusing on key facilities, maintenance strategies, and production performance following a successful three-and-a-half-month outage. The presentation covered significant updates, challenges, and results across the waste treatment system, as well as plans to support long-term objectives like tank closure by 2037.

1. **Overview of Liquid Waste System:**
   - Four main facilities were outlined: F/H Tank Farms, Defense Waste Processing Facility (DWPF), Salt Waste Processing Facility (SWPF), and Saltstone Production Facility.
   - The integrated system requires synchronized operations, as one plant going offline impacts others.
2. **Outage Accomplishments:**
   - Major upgrades included new filters and contactors at SWPF for increased throughput, crane control system upgrades at DWPF for availability, and a new lag storage facility for operational flexibility.
   - These upgrades enhanced plant efficiency and reliability by resolving prior constraints, enabling higher processing rates and reduced downtime.
3. **Post-Outage Results:**
   - Production rates significantly improved, setting multiple records across various timeframes (7-day, 30-day, etc.).
   - System throughput reached sustainable levels to meet 2037 closure goals, with availability increasing to ~74%. Improvements in filter designs nearly doubled capacity, reducing dependency on multiple units.
4. **Risk Reduction and Tank Closure Progress:**
   - Efforts prioritized high-curie waste and tanks near the water table for early processing, with 46 million curies removed in four years—twice the reduction achieved over the previous eight.
   - Four tanks were completed for preliminary waste removal last year, with plans to complete three more in 2023, keeping progress ahead of regulatory commitments.
5. **Key Improvements and Long-Term Outlook:**
   - Higher sodium molarity in waste feeds reduced processing volumes by 20%, decreasing total required throughput for the mission from 100 million gallons to 80 million gallons.

- Strategies to increase availability (to a target of 65%) are ongoing, with a focused campaign called "Drive to 65."
- Continued focus on system reliability and flexibility ensures alignment with the 2037 closure plan, with risk reduction accelerating as high-curie waste is prioritized.

6. **Saltstone Production Facility Performance:**
    - Post-outage operations processed 2.37 million gallons of decontaminated salt solution into grout, with operations continuing successfully.

In summary**,** the outage has positively transformed the liquid waste system, yielding higher throughput, increased availability, and significant risk reduction. The system is now well-positioned to achieve the 2037 closure schedule through continued improvements in operational reliability and focused execution on tank closures and high-curie waste processing.

Liquid Waste Post Outage Processing Update Q&A

Ms. Ray asked about the time it takes for the Defense Waste Processing Facility (DWPF) to catch up following a maximum 10-day outage using the newly created lag storage buffer between the Salt Waste Processing Facility (SWPF) and DWPF.

Mr. Borders explained that DWPF processes strip effluent faster than SWPF produces it, which allows DWPF to catch up quickly once it resumes operations. The lag storage, which nearly doubled the previous capacity, provides a significant 10-day buffer to handle short-term outages. Even in scenarios involving longer interruptions (around 20 days), DWPF has the ability to outpace SWPF and recover, depending on the stage of the production cycle, ensuring minimal disruption to overall operations.

Ms. Britt asked about the age of the oldest tanks in the tank farm and how their contents are processed.

Mr. Borders stated that the oldest tanks date back to the 1950s and are among the first being closed. The waste in the tanks consists of three main components: sludge (peanut butter-like consistency), salt cake (solid white block-like material), and salt supernate (clear liquid similar to antifreeze). Using a waste characterization system (WCS), along with tank sampling and inspections, the facility tracks waste inventory, monitors tank chemistry (e.g., pH and nitrite levels), and ensures tank integrity using crawlers and drones.

Ms. Britt also asked what liquids are added to dissolve the waste for processing.

Mr. Borders explained that they typically use beneficial reuse of dilute salt solutions already present in the tanks to limit waste volume but occasionally use fresh water from wells as needed. This approach allows for efficient management of waste dissolution and batch preparation for further processing.

Ms. Britt asked what type of liquid is added to dissolve salt in the tanks.

Mr. Borders explained that they prioritize "beneficial reuse," using existing dilute salt solutions from the tanks to dissolve the salt, minimizing the creation of additional waste volume. However, if necessary, fresh water, such as well water, is also used to aid the process.

Mr. Ball asked if the recent outage was connected to the discovery of cesium contamination in a wasp nest.

Mr. Borders assured that there was no connection, explaining that wasps can access residual low-level contamination found near processing areas, such as in mud or water puddles around waste tanks.

Mr. Ball noted that the wasps in question were paper wasps.

Mr. Borders clarified that various types of wasps and insects exist around the facility and can use contaminated materials in their nest-building. He emphasized that the contamination levels in such wasps are very low, their range is limited to a few hundred feet, and their short lifespan poses no risk to workers or the environment.

Mr. Deshong asked Mr. Borders if he would explain how SRMC is leveraging new technology to advance cleanup missions.

Mr. Borders highlighted the use of drones as a key innovation in managing underground million-gallon waste tanks. Equipped with protective cages to operate safely in confined industrial spaces, these commercially available drones have been retrofitted to withstand high radiation fields in the tank farms. Drones are now used for faster and more cost-effective tank inspections, providing enhanced visuals with high-resolution cameras and lighting. In addition, SRMC has employed 3D printing to develop specialized tools for drones, such as samplers and centrifuges, to collect and analyze solid, liquid, and slurry waste. This technology replaces the previously cumbersome and costly crawlers, significantly improving efficiency in waste removal and tank closure operations.

Ms. Jackson asked about the current operational status of the tanks.

Mr. Borders explained that out of the 51 tanks, 8 have been permanently closed and filled with grout, while 7 have completed preliminary waste removal and are being prepared for closure, leaving 15 tanks no longer in service. The remaining tanks are still operational.

Ms. Jackson then asked if non-operational tanks could be restored.

Mr. Borders clarified that grouted tanks cannot be restored, and the intention is to permanently close and grout the other 7 as well. Tank space is managed carefully by concentrating waste to minimize volume, eliminating the need to build new tanks since the early 1980s.

Ms. Jackson also asked about the location of operational tanks.

Mr. Borders stated that they are spread across F and H Tank Farms, with about two-thirds in H Tank Farm and one-third in F Tank Farm. The goal is to complete closures in F Tank Farm before eventually shutting down H Tank Farm, but currently, tanks in both farms remain in service.

Annual Site Environmental Report (ASER): Dr. Colleen Davis, SRNS

The presentation, delivered by Dr. Colleen Davis about the 2024 Annual Site Environmental Report (ASER) for the Savannah River Site (SRS), provides an overview of the site's environmental monitoring and compliance activities. The ASER is a comprehensive public document, available on the SRS website in an interactive format or as a downloadable PDF, detailing the site's environmental performance, radiological monitoring, surveillance efforts, and compliance status with federal and state regulations. SRS has consistently published ASERs since 1959, providing over 60 years of historical environmental data.

In 2024, SRS maintained full regulatory and DOE compliance, demonstrating that all operations remain protective of both the environment and public health. The report categorizes site activities into three themes: environmental compliance, monitoring, and stewardship. Key highlights from the 2024 ASER include:

1. **Environmental Monitoring**: SRS conducts effluent monitoring (direct sources of air and liquid discharges) and environmental surveillance (sampling of air, water, soil, fish, and vegetation beyond the site). Monitoring ensures public and environmental safety, with 2024 results confirming all effluent and surveillance samples were within regulatory and historical limits.
   The site dose from SRS activities remained exceptionally low at 0.33 millirem, significantly below the DOE yearly limit of 100 millirem.
2. **Regulatory Compliance**: Over 433 federal and state operating and construction permits were maintained without violations in 2024. Clean Air Act and Clean Water Act requirements were fully met, and stormwater and industrial wastewater discharges achieved over 99% compliance.
3. **Groundwater Remediation**: SRS operates 41 remediation systems to manage contamination risks and protect groundwater. Phytoremediation projects, among others, continue to remove tritium and other contaminants, successfully reducing environmental impact over time.

4. **Radiation Dose Awareness**: The presentation emphasized that radiation exposure from SRS (e.g., 33 bananas worth per year in "banana equivalent dose") is minimal compared to everyday sources like solar radiation, air travel, or medical procedures.
5. **Stewardship & Outreach**: The site actively promotes environmental stewardship, education, and workforce development. Over 40,000 individuals were impacted by its community outreach programs. Conservation efforts, such as protecting the red-cockaded woodpecker habitat, further illustrate this commitment.

The ASER underscores SRS's dedication to transparency, safety, and environmental responsibility, meeting all regulatory requirements while fostering public engagement and continuous improvement. As Davis highlighted, the report serves multiple stakeholders, ranging from DOE headquarters and regulators to community members and researchers.

Annual Site Environmental Report (ASER) Q&A

Mr. Tuyll asked about whether staff can directly access areas where the NNSA operates or must rely on self-reporting?

Dr. Davis clarified that her team has full access to all areas of the site, including those under NNSA operations. She noted that access may require an escort but emphasized that direct sampling is conducted as needed across the site.

Mrs. Priester asked about the required monitoring distances.

Dr. Davis explained that the requirements vary depending on the type of media being sampled and typically range from 5 to 20 miles outside the site boundary. While compliance mandates periodic sampling to confirm that radionuclides are behaving as expected, most offsite sampling done by SRS is voluntary surveillance rather than strictly required. For areas with greater potential for airborne travel, such as near the Savannah River or toward Georgia, SRS focuses on air stations and uses meteorological data to guide monitoring efforts. Dr. Davis emphasized that the site's monitoring goes above and beyond the minimum requirements outlined in the DOE handbook, which primarily suggests occasional sampling due to the low dose levels (below 1 millirem) from the site's activities.

Mrs. Priester also asked about advancements in testing compared to the past.

Dr. Davis explained that while historical data is available, comparing it to current data can be challenging due to changes in the site's missions over time, such as shifts from active operations to environmental cleanup. These mission changes influence environmental observations and make direct comparisons difficult. Dr. Davis also emphasized that advancements in technology have significantly improved detection limits, allowing for much greater sensitivity and precision in modern testing compared to the past.

Mrs. Priester then asked about how long it takes for radiation to leave the body if someone is overexposed.

Dr. Davis explained that the timeframe depends on the type of radiation (e.g., alpha, beta, gamma rays), the level of exposure, and the half-life of the radioactive material. Factors such as the protective equipment worn and the material's penetration ability also play a role. While accidents could theoretically happen, none have occurred recently at the site. A bioassay group actively monitors individual dosimetry through quarterly assessments to ensure exposures are managed and mitigated. Proper protective measures are in place to minimize exposure risks.

Ms. Ray asked whether bears are being monitored on the site, noting that while several animals are tracked, including deer, feral hogs, and fish, she has not heard mentions of bears despite sightings in populated areas near neighborhoods.

Dr. Davis explained that bears are not currently monitored on the site because the habitat there is not well-suited for supporting a bear population. Bears sighted in the area are likely off-course from their usual range. If bear sightings were to increase significantly, monitoring might be implemented, but there is no substantial population at present to justify it.

Mr. McKay inquired about the sensitivity and specificity of the analysis, specifically asking how often animals are harvested annually to assess organ-specific concentrations of particular nuclei, as this provides greater insight into potential human uptake, particularly in mammals.

Dr. Davis explained that wildlife monitoring typically aligns with hunting season, though exceptions could be made for nuisance animals. Monitoring involves whole-body dose detection in the field and sampling specific animals (e.g., every fifth or tenth) to analyze radionuclide deposition in muscle and bone. This approach focuses on assessing potential human exposure if the meat is consumed offsite.

Mr. Ball asked about the variance in the reported average of 3.3 microsieverts from SRS. He questioned whether this average represents a uniform impact across individuals or if it results from a few people receiving significantly higher doses while most experience much lower levels.

Dr. Davis explained that the 3.3 microsieverts dose is a highly conservative estimate calculated using dose modeling described in chapter six of the report. The model assumes a "representative person" living near SRS who consumes fish, wildlife, and other foods with the highest detected radionuclide concentrations. Even if only a single animal or fish shows a higher dose, that value is applied to the entire model to ensure conservatism. In reality, it's unlikely that anyone in the vicinity is actually receiving this much radiation exposure, as the model represents a worst-case scenario where someone entirely lives off the land and wildlife from the area.

Ms. Creech asked how often samples are taken during the year based on state and federal regulations, specifically wanting to know if there is a set sampling schedule, such as every few months or during specific seasons like winter or summer.

Dr. Davis explained that sampling frequency varies by program, with some samples taken weekly, monthly, quarterly, or annually. Areas closer to site operations are sampled more frequently, while outlying areas, like Allendale, are divided into quadrants and typically sampled once per year per media. However, sampling is distributed throughout the year to account for seasonal differences, such as collecting different crops like peanuts or watermelon at their respective harvest times.

Ms. Jackson asked whether testing and sampling are conducted exclusively by the organization itself or if outside contractors are also utilized for these activities.

Dr. Davis explained that environmental monitoring and compliance involves several teams: an operations team collects data, a sample data management team integrates it, and an environmental monitoring program compiles reports. Additionally, an environmental compliance group consults on permits and sampling frequency. Samples are analyzed by two off-site DOE-accredited laboratories and an on-site environmental bioassay lab, which also holds accreditation. The on-site lab provides time-saving benefits by reducing the need for shipping, but it follows the same rigorous quality standards as off-site labs, including periodic external validations of its results.

Board Elections

Ms. Campbell explained the voting process for selecting the board chair and vice chair, instructing members to circle a name on the ballot and fold it for collection. After lunch, the votes were tallied, and the results were announced: Ms. Deborah Creech was elected as the new vice chair, and Mr. Hubert Van Tuyll as the new chair.

SCDES Environmental Surveillance and Oversight Program (ESOP): Madeleine Kellett, SCDES

Ms. Kellett, a public outreach coordinator for the South Carolina Department of Environmental Services (SCDES), provided an overview of the Environmental Surveillance and Oversight Program (ESOP). Following the 2024 split of SCDHEC into two agencies—SCDES and SC Department of Public Health—ESOP continues as a DOE-funded program under the remediation and environmental monitoring grant. Its main goal is to independently verify the environmental data from SRS by conducting additional sampling and analysis for

radiological and non-radiological contaminants across various media (e.g., air, water, soil, vegetation, seafood, wildlife).
Key projects include:

- **Air Monitoring**: Samples collected weekly, monthly, or quarterly to detect alpha, beta, gamma, and tritium levels.
- **Water & Sediment Monitoring**: Focused on groundwater, drinking water, surface water, and sediment, with varying sampling schedules. A special early detection system monitors tritium levels in surface water downstream.
- **Soil, Vegetation, and Milk**: Annual testing includes split sampling with SRS. Special emphasis is placed on contaminants like Cesium-137 and Strontium-89/90 due to their health risks.
- **Fish and Game Sampling**: Analyzing key species for potential contamination in their flesh and bones, with results compared to SRS data, showing consistency over time.

The program's findings are shared in detailed reports, which include historical trends and raw data, available on the SCDES website. ESOP also engages in community outreach through events like Earth Day, SEED, and local festivals, promoting environmental awareness and education.

SCDES Environmental Surveillance and Oversight Program (ESOP) Q&A

Mr. Tuyll asked who could clarify where the small radiation release (.33 millirem dose) from SRS originates.

Dr. Davis spoke up from the audience and explained that this was not considered a radiation "leak" but rather dose estimates from releases into the environment, such as airborne or liquid effluents, or legacy contamination already present on-site.

Mr. Tuyll had a follow-up question regarding whether pinpointing the exact source of such a small dose is worthwhile.

Dr. Davis responded saying that dose levels are modeled using sampling data, which identifies radionuclide levels at various locations. While the modeled dose values are conservative and based on limited data points (e.g., one sample), potential locations with elevated values can be tracked. All data, including radionuclide levels by site media, is listed in the ASER tables for further review.

Mr. Ball asked whether there have been instances when downstream communities were warned about potential issues during surface water monitoring.

Ms. Kellett explained that in recent history, there has been no need to warn downstream drinking water facilities, as the EPA limits have never been exceeded. However, the monitoring system is in place as a precaution.

Ms. Britt asked that on the off chance that your findings are very different from SRS's from ASER from their findings. What happens next?

Ms. Kellett explained that their team reviews and compares their data with DOE's data throughout the year. If any significant discrepancies or concerns arise, they reach out to the DOE to discuss and determine if the issue needs to be addressed in the report. Notes are included in the report's tables to explain any anomalies, such as missed samples due to weather incidents, ensuring transparency.

Ms. Britt then asked when the last significant discrepancy occurred.

Ms. Kellett replied that, to her knowledge and experience in the program, there hasn't been any major issue, as most results are very comparable. She then deferred to Greg (Mr. O'Quinn, also with SC DES) for further context if needed.

Mr. O'Quinn explained that they maintain constant communication with SRS, meeting monthly with program leads and DOE contacts. If any concerns arise, such as a potential release, SRS informs them, allowing both teams to coordinate monitoring efforts and compare results. He emphasized that their primary goal is to prevent contaminants from leaving the site and reaching the public. He recalled a recent instance near F Area, where SRS alerted them to an issue (not technically a release). Monitoring stations were set up to collect data both near the site and further downstream, showing decreasing levels downstream. This occurred roughly two years ago but was effectively monitored to safeguard the Savannah River.

Ms. Kellett added that the report distinguishes between on-site and off-site locations in each chapter. This allows readers to compare data from an on-site location with an off-site location, such as downstream, as all results are documented in the report.

Mr. O'Quinn addressed Mr. Ball's question about notifications, explaining that while the EPA drinking water limit for tritium is 20,000 picocuries per milliliter, their threshold for courtesy notifications to downstream customers is 5,000 picocuries per milliliter. Although some notifications have been issued in the past, none have been necessary in the last two to three years.

Mr. McKay asked whether the co-precipitates, metals, and other contaminants at the site align with typical brownfield issues, aside from the radionuclides.

Ms. Kellett stated that all contaminants are typically within standard limits, and any exceptions would be addressed in the report.

Food Webs, Contaminants, Ecosystem, and You: Gene Rhodes, SREL

Dr. Rhodes provided an overview of the University of Georgia's Savannah River Ecology Laboratory (SREL), emphasizing its long-standing presence at SRS and its role in studying ecological processes, contaminant transfer, and trophic systems. SREL operates under a cooperative agreement with DOE, offering education, service, and research, including extensive public outreach and publications. The lab studies how contaminants move through ecosystems, monitoring pathways such as soil, plants, animals, and water, and assessing potential risks to humans and wildlife.
Key topics included:

- Trophic Transfer and Food Webs: Contaminants bioaccumulate (increase in organisms over time) and bio magnify (concentrations increase up the food chain), with examples from monitoring birds, fish, and plants at SRS.
- Ecological Monitoring: SREL uses wildlife like raccoons, possums, fish, and plants to trace contaminants within specific ecosystems. Certain species (e.g., hyper accumulative plants) reveal insights into contaminant distribution in the environment.
- Human Exposure Risks: SREL focuses on species consumed by humans (e.g., fish, deer, hogs) to evaluate risks, noting that local consumption of these animals is typically low-risk under normal conditions.
- Non-Consumable Indicators: Animals like songbirds, bats, and snakes are used to monitor contaminant mobility and presence without consumption risk. Small, localized species such as mice and insects provide highly specific data.
- Innovation: The lab explores innovative sampling methods, such as using paper wasps to non-invasively determine localized contaminant levels.

Dr. Rhodes emphasized the importance of understanding contaminant movement through complete ecosystems and reaffirmed SRS as one of the best-studied DOE sites, with robust monitoring and risk assessment programs to protect public health and the environment.

Food Webs, Contaminants, Ecosystem, and You Q&A

Mr. McKay asked if Dr. Rhodes had studied the radionuclide accumulation capabilities of plants like switchgrass or elephant grass, suggesting they might serve as an additional buffer.

Dr. Rhodes explained that while he hasn't directly studied radionuclide accumulation in plants like switchgrass or elephant grass, researchers at SREL have investigated wetland plants, including wetland trees and grasses. These plants are known to absorb contaminants, and similar grasses are used in metal treatment wetlands, where plants like cattails absorb metals, allowing for their removal through harvesting.

Board Business:
Appreciation Awards

Mr. Deshong and Mr. Tanner presented letters and certificates of appreciation to Ms. Michelle Bush (in absentia), Mr. Kenneth Sajwan, and Ms. Phyllis Britt for their years of service on the board. Ms. Britt also received a special plaque recognizing her contributions as a member and CAB Chair.

Public Comments

No public comments.

Closing Remarks

Ms. Campbell congratulated the ones rotating off the board and also thanked everyone for a great meeting. She also thanked the CAB support staff, AV team, and all participants.

Ms. Britt expressed her gratitude, noting that serving on the board has been a pleasure and a valuable learning experience, especially given her husband's background as a chemical engineer dealing with high-level waste. She shared her enjoyment of working with the people on the board and concluded by thanking everyone and expressing hope to see them again.

Meeting adjourned at 3:45pm EST.