



DOE-SR remarks

SC GOVERNOR'S NUCLEAR ADVISORY COUNCIL

OCTOBER 17, 2019

SRS UPDATE

Contracts

- **Management & Operating Contract:** SRNS contract extended through September 30, 2020, with additional two one-year options to follow. No decisions yet on acquisition strategy for re-competing this contract.
- **Liquid Waste (LW) Contract:** Savannah River Remediation (SRR) contract to continue operating the liquid waste facilities also extended until September 30, 2020.
 - DOE is on front-end of working the new solicitation, called the SRS Integrated Mission Completion contract, that will replace the LW contract and perhaps add other work, to include management of H-Canyon, HB-Line and L-Area to better synchronize with Liquid Waste work scope. Working hard to keep this solicitation on schedule.
- **Site Security Contract:** Original contract with Centerra ended Oct. 7 and has been extended until February 7, 2020, with the option for two additional four-month extensions. Currently, DOE is reviewing proposals for the new paramilitary services contract.

Budget

- Continuing Resolution extends current funding levels and programs through Nov. 21.
- President's Budget Request (PBR) for FY20 includes \$1.6B for SRS (EM), \$91M above the FY19-enacted level. House mark is lower than the PBR by \$20M and Senate mark is \$20M above the PBR. Additional requested data has been provided to Appropriations staff; we await results as numbers are sorted out in conference.

Programs

• **Nuclear Materials**

- In H Canyon, we continue to process High Flux Isotope Reactor or "HFIR" fuel, Material Test Reactor Fuel, and Target Residue Material from Canada.
- HB-Line is continuing with layup activities to place the facility in a safe-shutdown status while preserving its capabilities for use in future DOE missions. These activities are expected to be completed by the end of calendar year.
- L-Area continues to receive Domestic and Foreign Research Reactor Fuels.
- K-Area is in an extensive maintenance outage to prepare for enhanced plutonium down-blending operations.
- Bldg. 235-F risk reduction activities have resulted in removal of over 180 grams of Pu-238 from the facility. This complex work is responsive to 2012 DNFSB recommendation. Future efforts will be focused on immobilization of remaining materials with risk to workers a top priority and eventual placement of the facility in safe, cold and dark condition.

- **Liquid Waste**

- **DWPF:** Defense Waste Processing Facility (DWPF) poured 35 canisters in FY19 for a total of 4,207 canisters since operations started up in 1996 (that's over half the projected 8,170 total canisters to be filled). The facility is currently undergoing maintenance and installing necessary modifications to support the startup of the Salt Waste Processing Facility (SWPF).
- **Canister Double Stack:** A total of 697 canisters have been double-stacked and 965 positions modified (crossbars removed) in Glass Waste Storage Building 1.
- **ARP/MCU:**
 - Mission of the Modular Caustic-Side Solvent Extraction Unit and the Actinide Removal Process is completed. Served us well as a pilot facility providing valuable lessons learned for successful operation of SWPF.
 - Operated for 11 years – originally expected to operate for only 3 years – and successfully processed almost 7.5Mgal of salt solution.
 - Facilities were shut down this summer in order to be de-inventoried and tanks and transfer lines flushed to make the ARP/MCU transfer lines available for SWPF.
 - Multiple transfer line modifications are now being made to allow the final tie-ins between the Liquid Waste system and SWPF with targeted completion by November 19, 2019.
- **Saltstone Facility** processed over 730,000 gallons of decontaminated salt solution in FY19. The facility is presently in standby condition awaiting accumulation of feed in Tank 50.
- **Evaporator Operations:** In FY19, 2H and 3H evaporators reclaimed over 1.4Mgal of tank space.

- **Tank Closure Cesium Removal (TCCR):**
 - System itself worked as predicted and processed over 200Kgal of material since startup in January 2019.
 - Currently, TCCR is not operational as the pump designed to dissolve saltcake failed. Pump replacement is very complex and time-consuming; will take several months. We completed enough processing in Tank 10 to prove the system worked. Once re-started, remaining material in Tank 10 will be removed and work will transition to Tank 9.
 - A feasibility report on the system will be provided to our regulators. SRR is also performing an alternatives analysis for other long-term options.
- **Saltstone Disposal Unit 7:** All SDU7 construction activities are proceeding on schedule with all walls completed on the 32Mgal mega-vault and roof placement underway.
- **SDU 8/9:** The mud mat foundation for SDU 8 has been installed and site prep has started for SDU9.
- **SWPF**
 - Successfully completed design capacity performance tests and working on proficiency tests (training, drills, etc.) to be ready for contractor and DOE Operational Readiness Reviews coming up.
 - Expect the SWPF project will be completed by schedule date of Jan. 2021.
- **Solid Waste**
 - In FY19, a total of 21.8 cubic meters of legacy Contact-Handled Transuranic Waste was shipped (via TRU-PAC II containers) to the Waste Isolation Pilot Plant (WIPP) in Carlsbad, NM.
 - SRS and WIPP are presently completing readiness assessments to allow use of TRU-PAC-III containers before the Nuclear Regulatory Commission (NRC) license expires at the end of 2019.

- **Area Completion / Soil and Water Cleanup**
 - Completed C-Area groundwater edible oil injection campaign to treat lower concentrations of solvents in the groundwater plume coming from the C-Reactor Complex. The oil will promote bacterial degradation of the contamination. Continued plume monitoring will determine the success of oil injections in treating the solvents.
 - Accelerated the G-Area Oil Seepage Basin remediation by a year. Working with our regulators, the selected remediation action is to backfill the basin to natural grade with clean soil and establish a vegetative cover over the basin area. The basin was formerly used for liquid waste disposal during SRS plant construction and later for receipt of effluent from SRS sanitary wastewater treatment plants. Emptied in early 1990s, it has accumulated only natural waters since. Following the backfilling, future land use of the area will be unrestricted.
- **SRS Receives National Award for Innovative Use of Aerial Drones to Perform Post-Closure Care at Closed Reactor Facilities:** SRS recently received DOE's Innovative Approach to Sustainability Award for our innovative use of drones to control the growth of vegetation on the roofs of two sealed and closed reactor buildings. This work has proved to be an annual savings of over \$170,000.
 - Previously, an SRS helicopter crew and Site photography were used to determine the amount of vegetation growth and herbicide spraying—an effective but expensive effort.
 - Working together, the SRS Area Completion Program and Savannah River National Laboratory flight program deployed a small drone to capture video/photos of the roof tops using a high-resolution camera, allowing a much more thorough inspection, instant data analysis and increased worker safety.
 - Partnering with Virginia Tech, a custom heavy-lift, hexacopter drone was then built to spray herbicide at half the cost of traditional means.
 - SRS is the only site within the DOE Complex that has developed the use of drones for surveillance and maintenance of closed reactor facilities.