

October 2017

Chamber of Commerce DC Trip

Department of Energy Talking Points

- **Current Initiatives of Importance**

- **Funding/Budget Impacts**

All of the missions and programs at SRS are important. What hurts most is not having a stable, adequate budget that SRS can depend on. We find ourselves headed toward another Continuing Resolution (CR). For SRS, due to the temporary nature of most CRs, it is difficult to plan operational work beyond the specific time limits of the funding. Work slows down because of the lack of definitive funding and inability to plan toward a specific budget.

Based upon the current budget numbers, the only sites across the DOE Complex with negative funding when compared to the FY18 Requested funds are SRS, Paducah, Portsmouth and Carlsbad. Paducah and Portsmouth are only negative in the House Energy and Water Development Appropriations Subcommittee (HEWD) numbers. Carlsbad is only negative in Senate Energy and Water Development (SEWD) Appropriations Subcommittee numbers. SRS is negative in both HEWD and SEWD. SRS continues to get the “short end of the funding stick” when compared across the DOE complex and as you all are aware, SRS is one of, if not the most, successful DOE sites when it comes to waste tank closures, canister production, and nuclear material processing.

For SRS, the \$50 million decrease in HEWD affects the following SRS activities:

1. H-Canyon would not be processing any spent nuclear fuel (SNF) and L-Basin would not be accepting further Foreign Research Reactor and Domestic Research Reactor (FRR/DRR) fuel. At the \$22M cut, there would be work force impacts in both facilities.
2. PILT would be discontinued (approx. \$6.5M impact to local community – for Barnwell County their \$4.7M PILT payment is a **Third** of the overall County Revenue).
3. The planned SRS Emergency Operations Center (EOC) alternative analysis would not proceed, at least a one-year delay on this needed new facility (-\$500k).
4. Cybersecurity request of \$22.8M (new requested PBS) was not funded, meaning the cost would be proportionally spread across the existing Program Baseline Summary (PBSs – different SRS “pots” of funding) causing further delays and workforce impacts.

The \$22.5 million in the SEWD affects the following SRS activities:

1. H-Canyon would not be processing any SNF (\$12M cut) and there would be work force impacts.
2. Salt Disposal Unit (SDU) #7 cut of \$10M would cause 6-month delay in construction, making the facility late for Salt Waste Disposal Facility (SWPF), causing a corresponding delay in SWPF ramp up to initial operations.

Ideally, the “Requested” numbers are the adequate and stable budget numbers the site needs. SRS could possibly live with the SEWD numbers, recognizing impacts will occur but the HEWD will certainly hurt SRS activities.

Looking into the future, concerns include the expected increases needed to support the pensions of SRS retirees over the next 5-7 years. There is not a separate line item in the budget to cover this expense, which will range from \$100 million to over \$300 million. These funds come out of the operating budgets. Pension payments and Environmental Management (EM) priorities are competing for the same budget dollars. Both DOE and our Congressional delegation need to take action soon to minimize this impending impact on the SRS missions.

- **SRS Workforce Progress**

According to recent reports, within three-five years, up to 50 percent of the SRS workforce will be eligible for retirement based upon years of service and age. Local progress is underway to help with the transition toward the impending millennial workforce at SRS.

The Workforce Opportunities in Regional Careers (WORC) Program strengthens the local workforce pool needed to support Department of Energy (DOE)-EM and National Nuclear Security Administration (NNSA) missions, particularly in the Savannah River Site (SRS) region. WORC builds on the DOE-EM funded Advancing Nuclear Skills Regionally (ANSR) Program that established new nuclear training certificate and degree programs in the Savannah River Site region from 2011 – 2016. The WORC Program includes student scholarships, student retention strategies, student outreach and promotion of relevant education and training programs, including those developed through ANSR.

WORC academic partners in South Carolina are Aiken Technical College, University of South Carolina Aiken and University of South Carolina Salkehatchie. WORC academic partners in Georgia are Augusta Technical College and Augusta University. The SRS Community Reuse Organization serves as the fiscal agent and provides coordination of regional efforts for the WORC Program.

Through the first year and a half, the program awarded 244 scholarships to students in WORC-related fields of study from the five college and university partners. Each academic partner is promoting WORC-related training programs and career pathways in accordance with their individual plans. WORC academic partners are continuing to meet with Savannah River Site employers and have improved their connections to facilitate student applications for internships, apprenticeships and limited service employee opportunities at SRS. In addition, SRS employers (contractors) have created new limited service employee opportunities for students in two-year, technical college programs.

One important aspect for the local communities is the large transition from a more experienced workforce to a younger workforce in our region. Not only at SRS but also at Fort Gordon. In fact, SRS and Fort Gordon, together, are responsible for a current estimated 37,000 jobs, making the federal government and its associated contractors the largest industry sector in the region.

The larger potential impact on the five-county region, especially when considered with the ongoing growth at Fort Gordon, is a result of the influx of new residents into the region. Approximately 2,500 to 3,000, new workers could move to the area associated with SRS. In addition, Fort Gordon, located outside of Augusta, GA, is expanding to house the Army Cyber Command. This move expects to create 4,700 civilian and military jobs. Including family members, the Army estimates 13,000 new residents in the Augusta metro area by 2020. Around 2,400 of these will be school-age children. This influx of new residents will influence the

regional housing markets, the public education system, and the demand for community amenities.

At the numbers we are looking at, this will be a major impact to our communities and the local communities need to help contractors with having amenities to help attract and retain this new workforce. There will be changes. The workplace priorities of this new millennial workforce include finding a job (and employer) with a purpose and finding the right “fit” with a work environment. Millennials want their work to have a purpose, to contribute something to the world and they want to be proud of their employer. DOE needs to highlight the meaningful careers they have in environmental cleanup, national security, and interesting, leading edge technologies to this new workforce. However, one impediment to this meaningful work purpose for these young workers is the current backlog of Department of Energy security clearance applications and approvals. It prevents them from actually doing the jobs they are hired to do for 18-24 months.

- **Advanced Manufacturing Collaborative (AMC)**

Existing on-site facilities are outdated, physically unattractive, and not suited for the new missions proposed by the new 70,000 square foot AMC facility. We are in hopes this new facility will appeal to the younger workforce with higher expectations and more options that are attractive for a workplace environment. We see this as a “game changer” for the local area with Savannah River National Laboratory (SRNL) staffing approaching 100 people.

Through third party financing, AMC will have a private entity provide laboratory and office space, maintain the facility, and execute a lease agreement. Such a facility could be catalysis for an innovation campus with private sector and university collaboration in R&D and industrial/technology startups.

However, even though similar facilities were recently approved and construction started - Administrative Support Complex (ASC) at Pantex and the Lawrence Livermore National Laboratory (LLNL) Advanced Manufacturing Laboratory (AML) - DOE-EM cannot seem to follow the NNSA lead and make a decision to move ahead on AMC. There is considerable disappointment and frustration at the local level with DOE-EM and with the lack of political influence and interest to make AMC a reality.

- **MOX**

DOE has a moral and legal obligation to expeditiously remove surplus plutonium brought into South Carolina, and ensure that any other fissile material brought into the state has a disposition pathway. DOE, NNSA and the National Academies of Science have previously studied alternative plutonium disposition strategies, and determined that MOX is the best solution. We need to move MOX from a “slow build” mentality to a more aggressive construction mentality to meet DOE obligations. We feel this situation has escalated above the local level and only congress can resolve. Locally we are in a difficult situation. We support MOX but if reality of a shutdown occurs, we expect a seat at the negotiations to discuss expectations for the use of the facility moving forward and replacement alternatives for workforce and economic losses.

- **Receipt of Foreign Nuclear Materials**

We understand and support SRS’s key role in nuclear non-proliferation and in storing the nation’s excess plutonium and other foreign nuclear material. SRS has facilities, resources, and the skilled workforce required to disposition nuclear materials. These assets are unique to SRS,

the DOE Complex and the Nation and are vital to national security; however, the facilities and supporting common infrastructure, much of which is over 60 years old, is in need of reinvestment so that they can continue to support the missions safely.

While we support new missions involving nuclear material, that support is predicated on receiving adequate infrastructure funding to carry out this mission and the condition that there is a final disposition path for the resulting waste materials from processing. On the horizon, is the potential for SRS to receive the German highly enriched uranium (HEU) of U.S. origin. This project will greatly benefit from SRS's location in South Carolina and from the workforce and other resources provided by the region. In recognition of these benefits, meaningful actions to demonstrate a community commitment to the local region is required. Such activities should include Regional Educational Outreach Programs; Regional Purchasing Programs; and Regional Economic Development and Community Support. This list is not all-inclusive and we expect a seat at the negotiations to discuss expectations for other constructive community activities.

- **Cybersecurity Collaboration**

DOE is the lead agency for combating cyber threats to the electric grid. However, according to the House Appropriations' full committee report on its fiscal 2018 Energy-Water spending bill, the House appropriators expressed concern that it is not doing enough to prevent hacking of its own operations. The committee's draft bill would direct DOE, within 180 days of enactment, to create a cybersecurity implementation plan with the aim of strengthening DOE's cyber posture. DOE developed a cyber-strategy in December 2015, but failed to create an implementation plan to carry out its policy, which creates uncertainty throughout the enterprise on how to properly deal with cyber threats and safeguard the Department's assets.

With a wide-ranging portfolio including advanced nuclear energy research and development and management of the nation's nuclear weapon stockpile, DOE's work involves sensitive nuclear secrets that could be prime targets for cyber-attacks. On top of the implementation plan, the report would direct DOE to consolidate its cybersecurity efforts for the department under the Office of the Chief Information Officer, which would then disperse "not less than" \$69 million for activities to protect against cyber-attacks and secure information. The security and integrity of energy infrastructure is both a state and Federal government concern because energy underpins the operations of every other type of critical infrastructure, the economy, and public health and safety.

The Army's Cyber Command is moving to Fort Gordon by 2020 from Fort Belvoir, Virginia. In addition, Georgia Gov. Nathan Deal recently invested \$50 million for a world-class cyber range and training facility in Augusta. A portion of Augusta University's Riverfront Campus will become the Georgia Cyber Innovation and Training Center, home to a new statewide effort to develop the workforce and infrastructure needed to protect our nation from cyber threats. The Georgia Cyber Innovation and Training Center - designed to promote modernization in cybersecurity through public-private partnerships - is currently under construction in downtown Augusta. Putting new emphasis on military cyber operations, President Donald Trump recently ordered the Pentagon to elevate its top cyberspace headquarters, U.S. Cyber Command, to a so-called "unified combatant command," putting it on the same level with other functional unified commands such as U.S. Special Operations Command (SOCOM).

Our region is an ideal place to form a cybersecurity collaboration between DOD and DOE. If DOE consolidated its cybersecurity efforts at SRS, great synergy and partnerships would exist

offering the full spectrum of cybersecurity risk management: identify assets, protect critical systems, detect incidents, respond to incidents, and recover to normal operations for both DOE in the energy sector and DOD in the military sector. This partnership will promote the mutual exchange of information and resources to improve the security and resilience for both DOE and DOD.

○ **Liquid Waste Cleanup Success and Need For Acceleration**

Currently, there are 43 operational underground storage tanks containing approximately 35 million gallons of radioactive liquid waste (LW) at SRS. Before tanks are closed, work activities include removing, stabilizing, and disposing of high- and low-level radioactive waste from the tanks. Savannah River Remediation, LLC (SRR), which became a contractor to DOE on July 1, 2009, is responsible for all liquid waste operations, including waste management, disposition, and management of all liquid waste facilities at SRS, as well as operationally closing high-level waste tanks. SRR was the first liquid waste contractor at SRS. The eight-and-a-half year contract ends on December 31, 2017. During that time, SRR's notable achievements included operationally closing six high-level radioactive waste tanks (only two tanks had been closed at SRS before SRR's arrival).

In July 1997, Tank 20 was closed after operating for 37 years. Tank 17 was closed later in 1997. The other SRR closures included Tanks 18 and 19 in 2012, Tanks 5 and 6 in 2013, Tank 16 in 2015, and Tank 12 in 2016. One of the optimum goals of the LW program is to reduce operational risk and the risk of leaks to the environment by removing waste from tanks and closing the tanks.

The Dispute Resolution reached last year between DOE and DHEC agreed to a new timeline for treating the HLW at the SWPF and committed to additional technological investments rather than litigate over penalties for missed deadlines. These innovative technologies, in addition to the SWPF, will help achieve committed treatment capacities.

The agreement paves the way for large-scale treatment to move forward without the delay and expense of litigation, furthering progress on tank closure and risk reduction. Under the agreement:

- SRS will process more than 35 million gallons of liquid waste starting in 2016 through 2022 to mitigate the delay in startup of the SWPF.
- DOE is funding roughly \$200 million of continuing work on innovative technologies that will make progress towards DOE's critical clean-up mission, including:
 - Tank Closure Cesium Removal, new at-tank treatment capacity;
 - Next Generation Solvent, an advancement that makes the SWPF more effective; and
 - Sonar Mapping, which enables faster assessment of small remaining residuals at cleaned tanks, cutting time from tank closure.

More funding helps move along two things in the Dispute Resolution: Tank Closure Cesium Remover (TCCR) and Sound Navigation and Ranging (SONAR). Of course, the future progress toward the ultimate goal of immobilizing all the LW at SRS is highly dependent on available funding.

- **Nuclear Materials Missions and Accomplishments**

SRS is not a closure site. It has clearly defined future missions extending well into this century. Those nuclear material missions center on tritium production and processing nuclear materials leading efforts in national security and nuclear non-proliferation.

H-Canyon is a unique national resource. It is the only facility which can process research reactor spent nuclear fuel, surplus highly enriched uranium and scrap plutonium for beneficial re-use and waste disposition. H-Canyon was constructed in the early 1950s and began operations in 1955. It is needed to process spent fuel stored in the L-Basin pools without it there is no disposition path out of SRS and our community for this nuclear material. In 2017, H-Canyon completed its dissolution mission by processing 100 percent of scheduled spent nuclear fuel. It also received Target Residue Materials (liquid highly enriched uranium from Canada). This is a \$60 million non-US taxpayer project for H Canyon.

In addition, SRS has an exemplary record of excellence in supporting limited life tritium components in our nation's nuclear stockpile. This year, it has completed three tritium extraction cycles, which are triple the historical annual number and begins a significant increase in operational tempo scheduled over the next three years.

While SRS is poised to meet critical national needs, there is broad consensus that maintenance of the general SRS infrastructure has not been adequately funded for the past two decades. These two elements, aged infrastructure and under funding, have resulted in a large volume of deferred maintenance and the need for capital improvements. If not addressed, this lack of funding could dampen the Savannah River Site's ability to attract new missions and to continue to meet its national missions. Appropriate planning and funding for SRS infrastructure will ensure that long-term investments are made to meet the priority needs of DOE-SR missions.