SRS Environmental Management Program
FY19 Performance Results and FY20 Key Priorities

Thomas Johnson
Deputy Manager
DOE-Savannah River

November 19, 2019
Purpose

• Provide the CAB with FY19 EM Cleanup Performance Results and FY20 Key Work Scope and Priorities
SRS Procurement Priorities

- **Paramilitary Follow-On Acquisition**
  - Reviews/Approvals are in process
  - Contract extension through 2/7/20 with two four-month options available

- **Integrated Mission Completion Contract**
  - In-progress
  - 18-month SRR Contract Extension Issued; 3/29/19 through 9/30/20
FY19 SRNS Priorities and Performance Results

Environmental Compliance and Area Completion

- Meet all regulatory commitments & milestones in the FY18 Federal Facility Agreement (FFA) Appendix E Long Term/Out Year Projections & RCRA Permit; Completed all 72 milestones due during FY19
- D-Area Ash Project (DAAP) Receive CD-4 Approval; Completed: 6/10/19.

Nuclear Materials Management

- Continue receipt of the Canadian liquid Highly Enriched Uranium; 86 shipments received cumulatively to date.
- Continue to make progress on 235-F Implementation Plan; MAR removal was paused on 6/6/19.
- Complete 1 Destructive Evaluation (DE) Surveillances in FY19; Completed 1 DE.
FY19 SRNS Priorities and Performance Results

Nuclear Materials Management, cont’d

- Down blend 25 3013 containers of fissile material; Completed in July 2019.

- H Canyon: Dissolution of 4 dissolver batches of 20 High Flux Isotope Reactor (HFIR) Cores & 2 dissolver batches of Bundled Spent Nuclear Fuel (SNF); Completed 3 batches of HFIR & 2 batches of MTR Fuel.

- L-Area to receive & store forecasted Foreign Research Reactor (FRR) & Domestic Research Reactor (DRR) SNF (15 & 19 respectively); Completed 15 of 15 FRRs & 19 of 19 DRRs.

Other ~ Line Item Project

- Advanced Manufacturing Collaborative (AMC): approval & begin construction; $50M allocated in President’s FY20 Budget.
FY19 SRNS Priorities and Performance Results

Solid Waste Management (SWM)

- Dispose of 6,800 m³ of Low Level Waste in FY19; Completed 4,763 m³.

- Request for Special Permit for shipping Cadmium Rod Casks without modifications. FY20 PBI to ship Cadmium Rod Cask off-site; Forecast: 7/31/20.

- Replace HDPE pallets with metal pallets for new receipts of TRU; Continues to be part of on-going TRU waste storage activities.

- Completed two (2) TRUPACT II shipments (12 Standard Waste Boxes); Completed 8/8/19.

- Received Carlsbad Field Office certification for the planned TRUPACT III casks of Legacy TRU waste; Completed 6/6/19.

- Completed PBI Readiness activities for Standard Large Boxes (SLB2) TRUPACT III shipments to WIPP; Approved 8/19/19; Shipments to WIPP Forecast: TBD.

  
  —Complete & Issue Rev. 0 of the Data Packages; Forecast 11/22/19.

- E-Area is currently setting up mock training station on use of NNSA purchased radiographic equipment to help Nuclear Materials stand up their Pu down-blend program in K-Area using identical equipment.
FY20 SRNS Key Scope/Priorities

**Environmental Compliance and Area Completion**
- Meet all regulatory commitments & milestones in the FY19 FFA Appendix E Long Term/Out Year Projections & RCRA Permit; Completed 6 out of 69 milestones due during FY20.

**Nuclear Materials Management**
- Continue receipt of the Canadian liquid Highly Enriched Uranium; 86 shipments received cumulatively to date.
- Continue to make progress on 235-F Implementation Plan & Deactivation; Pursuing strategy for closure of DNFSB 2012-1.
- Complete 7 Destructive Evaluation (DE) Surveillances in FY20; Completed 0 of 7.
- Down blend thirty (30) 3013 containers of fissile material; Completed 5 of 30.
- H Canyon: Dissolve 2 HFIR batches (10 cores) & 3 MTR batches (72 Bundles); Completed 0 batches of HFIR & 1 MTR batch. (under PBR, only 1 HFIR batch to be dissolved).
- L-Area to receive & store forecasted FRR & DRR SNF (0 & 22 respectively); Completed 2 of 22 DRRs.

**Other ~ Line Item Project**
- AMC: Approval & begin construction; Awaiting approval of appropriations to complete design & prepare for construction. $50M allocated in President’s FY20 Budget.
FY20 SRNS Key Scope/Priorities

Solid Waste Management

• Support treatment/storage/disposal of up to 4,900 m³ of newly generated low-level radioactive waste.

• Support treatment/storage/disposal of up to 57 m³ of mixed low-level radioactive waste.

• Support treatment/storage/disposal of up to 52 m³ of hazardous waste.

• Support treatment/storage/disposal of sanitary waste.

• Maintain Solid Waste management facilities to support site operations, including the construction debris landfill.

• Complete shipment of 54 m³ of transuranic waste to the WIPP. Includes 5 TRUPACT-III shipments plus one TRUPACT II drum shipment of transuranic waste to the Waste Isolation Pilot Plant; Forecast by 9/30/20.
FY20 SRNS Key Scope/Priorities

Solid Waste Management, con’td

- Pad 4 Modifications to support the re-establishment of E-Area TRU waste Characterization.
  - Complete electrical & fire protection modifications on TRU Pad 4; Forecast 3/31/20.
  - Complete installation of portable characterization equipment on TRU Pad 4 (GFSI item); Forecast 5/15/20.


- Revision of 2009 Performance Assessment E-Area Low-Level Waste Facility (ELLWF).
  - Complete Tier 1 Groundwater (GW) & Intruder Screening & Issue Rev 0 Report; Forecast 7/30/20.
  - Complete calibration of GOLDSIM to PORFLOW & issue Rev 0 report; Forecast 9/30/20.

- Complete the LLW module of the Consolidated Waste Tracking database & begin programming the Hazardous/Mixed waste module; Forecast 09/30/20.

- Ship the Cadmium rod Cask off-site for disposal; Forecast 09/30/20.
SRNS Contract, Performance Indicators, Risk, Safety & Security Performance

- **Name:** Savannah River Nuclear Solutions, LLC
- **Type:** Cost Plus Award Fee
- **Scope:** Site Management and Operations
- **Award Value:** $8.0 B (includes base + fee + option 1 & 2)
- **Current Value:** $14.9 B (includes award value + non-appropriated + ARRA + contract extension 1 & 2)
- **Performance Period:** 8/1/08-9/30/20 (There are two one-year options to extend.)
- **Major Pending Changes:** Extension #2 Modification executed.
- **Draft RFP:** Released on 8/21/18 (on hold)
- **Fee-Bearing Milestones:** Various (PEMP)

**Performance Indicators through September 2019**

<table>
<thead>
<tr>
<th>CPI For Period</th>
<th>CPI cum</th>
<th>Trend</th>
<th>SPI for Period</th>
<th>SPI cum</th>
<th>Trend</th>
<th>Notes</th>
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**Safety Performance Indicators through September 2019**

<table>
<thead>
<tr>
<th>FY 2019 Rates</th>
<th>12 mo Rolling</th>
<th>Contractor Goal</th>
<th>EM Goal</th>
</tr>
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<tr>
<td>TRC</td>
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<tr>
<td>DART</td>
<td>0.07</td>
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</table>

**Key Risk Considerations**

- Waste Isolation Pilot Plant availability & readiness for TRUPACT III shipment by 12/31/19.
- H-Canyon IPT Analysis of Alternatives regarding operation of H-Canyon & SNF disposition.
- Enhanced operator training to address fundamental facility knowledge retention.
- 235-F Execution Plan - Path for early closure of DNFSB recommendation while pursuing path to place facility in a cold & dark state as deactivation progresses.
## SRNS Contract/Regulatory Milestones

<table>
<thead>
<tr>
<th>Milestone ID</th>
<th>Milestone Name</th>
<th>Regulatory?</th>
<th>Contractual?</th>
<th>Target Date</th>
<th>Forecast</th>
<th>Actual</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRNS2019-EMO-1.04</td>
<td>H-Canyon Exhaust Tunnel Structural Integrity Inspections.</td>
<td>X</td>
<td></td>
<td>6/30/19</td>
<td>11/1/19</td>
<td></td>
<td>DOE Reviewing</td>
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<tr>
<td>SR-0030.O1-443</td>
<td>Initiate Sixth Phase II Field Start Steel Creek Integrator Operable Unit (IOU)</td>
<td>X</td>
<td></td>
<td>6/30/19</td>
<td>7/30/19</td>
<td>6/25/19</td>
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<tr>
<td>SRNS2019SWM-1.03</td>
<td>Complete readiness activities for SLB2 shipments to WIPP.</td>
<td>X</td>
<td></td>
<td>7/31/19</td>
<td>8/19/19</td>
<td>8/19/19</td>
<td></td>
</tr>
<tr>
<td>SRNS2019-EMO-2.02</td>
<td>Perform down blend of 25 3013 containers.</td>
<td>X</td>
<td></td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>8/21/19</td>
<td></td>
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<tr>
<td>SRNS2019-EMO-2.03</td>
<td>Submit high quality DSA Rev. 14 to DOE for approval, consistent with the safety basis strategy.</td>
<td>X</td>
<td></td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>8/21/19</td>
<td></td>
</tr>
<tr>
<td>SRNS2019-EMO-4.01</td>
<td>Receive, unload &amp; store FRR/DRR fuel in accordance with the FY19 FRR/DRR receipt &amp; unloading schedule agreement.</td>
<td>X</td>
<td></td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>8/21/19</td>
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<tr>
<td>SRNS2019-EMO-4.04</td>
<td>Perform visual inspections of (3) MTR fuel assemblies as described by the Augmented Monitoring Condition Assessment Program (AMCAP).</td>
<td>X</td>
<td></td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>8/21/19</td>
<td></td>
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<tr>
<td>SRNS2019-EMO-1.01</td>
<td>Dissolve 2 additional HFIR batches.</td>
<td>X</td>
<td></td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
</tr>
<tr>
<td>Milestone ID</td>
<td>Milestone Name</td>
<td>Regulatory?</td>
<td>Contractual?</td>
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<td>Actual</td>
<td>Note</td>
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<tr>
<td>SRNS2019-EMO-1.02</td>
<td>Dissolve a second batch of MTR.</td>
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<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
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<tr>
<td>SRNS2019-EMO-1.03</td>
<td>Receive &amp; upload shipments of TRM.</td>
<td></td>
<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
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<tr>
<td>SRNS2019-EMO-2.05</td>
<td>Hire 20 IL Area operators, complete fundamentals training, &amp; initiate facility training for supporting CCP pad development &amp; operations.</td>
<td></td>
<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
</tr>
<tr>
<td>SRNS2019-EMO-3.01</td>
<td>SRNS will implement Z255-F Risk Reduction Actions consistent with the IP for DNFSB Recommendation 2012-1, in addition to F/H lab modification.</td>
<td></td>
<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
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<tr>
<td>SRNS2019-EMO-4.02</td>
<td>IL Area level 5 HFIR fuel casks &amp; 2 MTR fuel casks for shipment to H Canyon for processing.</td>
<td></td>
<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
</tr>
<tr>
<td>SRNS2019-EMO-4.05</td>
<td>Complete movement of Buck Storage Racks from Long Row “T” to Long Row “P” &amp; a Nuclear Criticality Safety Evaluation supporting vertical loading of 1 bundles into 70T casks to improve cask loading efficiency.</td>
<td></td>
<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
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<tr>
<td>SRNS2019-EMO-5.02</td>
<td>Implement enhanced Nuclear Safety operating training for H-Area, K-Area &amp; L-Area facility personnel.</td>
<td></td>
<td>X</td>
<td>7/31/19</td>
<td>7/31/19</td>
<td>10/3/19</td>
<td></td>
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</tbody>
</table>
FY19 SRR Priorities and Performance Results

Execution Goals:

- Process 0.75 Mgal of salt solution from Tank 10 via TCCR #1 Operations; FY19 through September: 210,000 gal (28%).
- Prepare Liquid Waste systems for SWPF Startup; Forecast SWPF CD-4: 2/20.
- Produce 44 canisters of highly radioactive waste at DWPF by 9/30/19; FY19 through September: 35 canisters (80%).
- Remove waste from SRS tanks by treating & positioning at least 1.8 Mgal of decontaminated salt solution (DSS) in Saltstone by 9/30/19; FY19: 710,912 gals of DSS were received from Tank 50 (39%).
- Modify 132 canister positions in Glass Waste Storage Building #1 & double stack 92 canisters; FY19: 179 positions (136%) have been modified & 191 canisters (208%) double stacked.
FY19 SRR Priorities and Performance Results

**SWPF Integration:**
- Suspended ARP/MCU Operations; DOE Authorized 6/4/19.
- Multiple Transfer line modifications in order to allow SWPF transfer line tie-ins; Completed.
- Completed efforts on the temporary modifications for flushing & draining the H-Z inter-area line to support final tie-in of the Salt Waste Processing Facility (SWPF).

**Tank Farm:**
- TCCR Batch #2 processed approximately 58,000 gal by 6/29/19; TCCR total processed through 9/19; approximately 210,000 gal.
- Tank 9H TCCR project was Initiated 5/1/19.
- TCCR Feasibility Study; Completed 9/26/19.
- 3H Evaporator-Procurement of materials & fabrication of the new evaporator pot; In progress.
FY19 SRR Priorities and Performance Results

**DWPF:**
- Installed new Melter Electrode Control Cabinet (MECC) & Energized new transformer; 3/19/19.
- Results of SRNL, Glycolate Destruction Tests; Completed 8/24/19. Develop/Approve/Issue Report; Forecast 11/5/19.

**Saltstone Production & Disposal Facilities:**
- Training of 2nd shift & hiring 2 more shifts to support 24/7 operations; Completed (2nd shift).
- SDU-7 Cell construction; Commenced 12/18.
  - All floor (14), wall (25), & column (28) sections completed.
  - 5 of 7 roof sections completed.
- SDU-8/9; CD-2/3 approval 5/1/19.
  - SDU 8 site preparation; Groundbreaking 6/19.
  - SDU 8 site preparation activities; Completed 9/19.
  - SDU 8 lower mud mat installation; Completed 9/19.
  - SDU 9 site preparation activities; Commenced 9/19.
- SDU-10-12; CD-1 achieved 12/18.
  - Commenced preliminary design activities.
  - Commenced CD-2/3 planning.
- SDU-6 & all future SDUs; Plan being finalized & implemented to increase current (restricted) SDU fill height to full fill limit to support Liquid Waste System Plan assumptions; Forecast for 2020 as part of interim Glycolic Acid change.
FY20 SRR Key Scope/Priorities

*Execution Goals:*

- Support SWPF operations startup, initiate radioactive waste operations.
- DOE-SR SWPF Operational Readiness Review (ORR); Forecast 12/19.
- SWPF Hot Commissioning; Commissioning; Forecast 2/5/20 – 4/5/20.*
- Water addition to Tank 9H to begin salt dissolution by 9/30/20;
  – On schedule to complete by 9/30/20.
- Process 1.0 Mgal of salt solution from Tank 10H via TCCR #1 Operations.
- Receive up to 200,000 gallons of H-Canyon waste.
- Produce 84 canisters of highly radioactive waste at DWPF.
- Modify 300 canister positions in Glass Waste Storage Building #1 for double stacking effort; Modified 31 in October (10%).
- Operate the Saltstone Production Facility to treat & disposition at least 6.9 Mgal of decontaminated salt solution (DSS) as saltstone.
- Operate Effluent Treatment Facility at planned rate.
- Continue support for DWPF Recycle Diversion- DWPF Recycle Wastewater Environmental Assessment.

* September 2019 status.
FY20 SRR Key Scope/Priorities

**SWPF Integration:**

- Prepare Liquid Waste systems for SWPF Startup; Achieve LW System readiness for SWPF operations by 11/19/19.
- Continue preparation of Tank 42H as third blend tank needed to support the SWPF production rates (9 Mgal/year).
- Continue the East Hill utilities upgrade to remove temporary modifications & continue work on transfer systems, processing tanks ventilation & critical spare parts to support Salt Waste Processing Facility planned operations.
- Provide 2.5 Mgal from tank 49H to SWPF.
FY20 SRR Key Scope/Priorities

Tank Farm:
- Perform Tank Farm operation activities, including waste transfers & removals.
- Processing Sludge Batch 9 & Continue Sludge Batch 10 preparation.
- Continue preparing Tanks 35H & 26F (Sludge Batch 11) & initiate preparation of Tank 39H (Sludge Batch 12) for waste removal to support Defense Waste Processing Facility operations.
- Continue salt batching in Tank 21H; Continue salt dissolution for salt batches in Tank 41H & Tank 37H (T-37H needed for 3-H evaporator usefulness) to feed the SWPF.
- Continue Preparation of Tanks 27F, 44F, 33F & 31H for salt dissolution needed for salt batches to feed the SWPF.

DWF:
- Operate Defense Waste Processing Facility to produce 80-90 canisters of vitrified high-level waste; Forecast 9/20.
- Melter 4 Assembly-Testing; Forecast 1/20.
- Complete Fabrication of Melter Storage Box #3-Testing; Forecast 6/20.
- DSA submittal to support introduction of Glycolic Acid flowsheet (package will also include Tank Farm DSA changes); Forecast 9/20.
- Continue modification to Defense Waste Processing Facility lab waste handling to support Salt Waste Processing Facility planned rates after first year of operation.
FY20 SRR Key Scope/Priorities

Saltstone Production & Disposal Facilities:

- Continue activities for enhanced saltstone production to support Salt Waste Processing Facility planned rates.
  - Hiring & training activities to support third & fourth operating shift; Forecast 4/20.
  - FY20 ELLAWD Phase II Upgrades to support SWPF processing rates; Forecast 3/20.

- SDU-7
  - Complete cell construction.
  - Resolve Project Peer Review recommendations related to active ventilation.

- SDU-8/9
  - SDU-8 Commence cell construction.
  - SDU-9 Complete site preparation activities.
  - SDU-9 Complete mud mat installation.

- SDU-10-12
  - Develop CD-2/3 approval package.
  - Achieve CD-2/3 approval.
  - Commence activities to combine SDU 10-12 & SDU 8/9 projects.

- Finalize cement free grout formula (40:60 fly ash to slag ratio); Forecast implement cement free in 2020 as part of interim Glycolic Acid change.

- Develop DSA/TSR change package to support restoring SDU-6 fill height to design basis limit; Forecast 9/20.
SRR Contract, Performance Indicators, Risk, Safety & Security Performance

- **Name:** Savannah River Remediation, LLC
- **Type:** Cost Plus Award Fee (Annualized Award Fee)
- **Scope:** Treatment & Disposal of Liquid Waste at SRS
- **Award Value:** $3.3 B (includes base contract + fee + options 1 & 2)
- **Current Value:** $5.9 B (includes award value + ARRA + Supplemental Salt Initiative + Contract Extensions 1, 2, 3 & 4)
- **Performance Period:** 3/30/09-9/30/20
- **Major Pending Changes:**
  - Integration Mission Completion Contract New AIPT Initiated
  - Extension 4 Mod Executed: 3/29/19
- **Fee-Bearing Milestones:** Various (PEMP); subjective & objective milestones

### Safety Performance Indicators through September 2019

<table>
<thead>
<tr>
<th></th>
<th>FY 2019 Rates</th>
<th>12 mo Rolling</th>
<th>Contractor Goal</th>
<th>EM Goal</th>
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### Performance Indicators through September 2019

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<th>CPI For Period</th>
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<th>SPI for period</th>
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<td>0.91</td>
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</table>

### Key Risk Considerations

- Effectiveness reviews for Technical Safety Requirements violations.
- Prepare Tank Farm, SPF & DWPF infrastructure for increased SWPF throughput.
- Hydrogen generation rate PISAs; impacts affect Saltstone SDU fill heights & initial SWPF startup will restrict feed.
- Continue training & reinforcement of management expectation for rigorous implementation of Conduct of Operations & Technical Safety Requirements compliance.
- Complete final Salt Waste Processing Facility tie-in into the Liquid Waste system.
<table>
<thead>
<tr>
<th>Milestone ID</th>
<th>Milestone Name</th>
<th>Regulatory?</th>
<th>Contractual?</th>
<th>Target Date</th>
<th>Forecast</th>
<th>Actual</th>
<th>Note *</th>
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<tr>
<td>SR-0014C.01.1-060</td>
<td>Complete Operational Closure of 2 tanks by 9/30/17.</td>
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<td>*Suspend per 2019 Suspension Agreement</td>
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<td>SR-0014C.01.1-058</td>
<td>Complete Bulk Waste Removal Efforts of 3 tanks by 9/30/17.</td>
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<td>Suspension Agreement</td>
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<tr>
<td>SR-0014C.01.1-059</td>
<td>Complete Bulk Waste Removal Efforts of 6 tanks by 9/30/18.</td>
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<td>SR-0014C.01.1-052</td>
<td>Complete Bulk Waste Removal Efforts for Tank 10H by 11/30/19.</td>
<td>X</td>
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<td>11/30/19</td>
<td>11/15/19</td>
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<td>Extension request granted 8/2/18</td>
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<td>SR-0014C.01.1-055</td>
<td>F-Tank Farm (FTF Deactivation Plan) by 6/30/20.</td>
<td>X</td>
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<td>6/30/20</td>
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<td>New per FFA 2019 Suspension Agreement</td>
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<tr>
<td>SR-0014C.01.1-057</td>
<td>Support Tank Closure Cesium Removal (TCCR) Water Addition to Tank 9H to begin salt dissolution by 9/30/20.</td>
<td>X</td>
<td></td>
<td>9/30/20</td>
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<td>New per FFA 2019 Suspension Agreement</td>
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<tr>
<td>SRR2020MGMT</td>
<td>Provide quality-driven program management as outlined in the contract, optimize Liquid Waste system performance, and perform approved scope at or below cost.</td>
<td>X</td>
<td></td>
<td>9/30/20</td>
<td>9/30/20</td>
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<tr>
<td>SRR2020SWPF-01.02</td>
<td>Complete Salt Batch Preparation and Qualification to support Sufficient Salt feed for SWPF Operations as Planned.</td>
<td>X</td>
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<td>9/30/20</td>
<td>9/29/20</td>
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<tr>
<td>SRR2020SWPF-01.03</td>
<td>Complete Sludge Batch Preparation and Qualification to support Sufficient Sludge Feed for DWPF to support SWPF Operations as Planned.</td>
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<td></td>
<td>9/30/20</td>
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Status as of 10/28/19
## SRR Contract/Regulatory Milestones

<table>
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<tr>
<th>Milestone ID</th>
<th>Milestone Name</th>
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</thead>
<tbody>
<tr>
<td>SRR2020SWPF-01.05</td>
<td>Complete DWPF and Saltstone Modifications to Support SWPF Sustained Operations as Planned.</td>
<td>X</td>
<td></td>
<td>9/30/20</td>
<td>9/30/20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRR2020SWPF-01.06</td>
<td>Complete Saltstone Disposal Unit (SDU) 7, 8, &amp; 9 Critical Path Activities Supporting SWPF Operations as Planned.</td>
<td>X</td>
<td></td>
<td>9/30/20</td>
<td>6/3/20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRR2020INFRA-01.01</td>
<td>Perform Key Infrastructure and Critical Spare Procurement Scope for Long Term Reliable Operations at DWPF, SPF and the Tank Farms to Support SWPF Sustained Operations as Planned.</td>
<td>X</td>
<td></td>
<td>9/30/20</td>
<td>8/13/20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRR2020REG-01.01</td>
<td>Develop Regulatory Requirements and Process Documentation that Advance Tank 10 cleaning Initiatives to Meet Regulatory Commitments and in Support of Future Tank Closure.</td>
<td>X</td>
<td></td>
<td>11/30/19</td>
<td>10/28/19</td>
<td>10/28/19</td>
<td></td>
</tr>
</tbody>
</table>
SRR Key Regulatory Documents/Negotiations

FFA Regulatory Commitments

• Initiate Tank 10H water addition for Bulk Waste Removal Efforts (BWRE) by 1/31/19; Completed Tank 10H water addition 11/8/18.

• TCCR demonstration; Started 1/16/19. Complete Batch #2 TCCR salt waste processing; Completed 6/19.

• Water addition to Tank 9H to begin salt dissolution by 9/30/20; On schedule to complete by 9/30/20.

• Tank 10H BWRE milestone due 11/30/19; On schedule to complete by 11/30/19.

FFA Regulatory Milestone Negotiations

• New 2019 Suspension Agreement signed: 4/22/19: extended the suspension to all remaining BWRE & Operational Closure milestones until September 2022 in a new 2019 Suspension Agreement (except 10H BWRE by 11/30/19).

• A series of new supplemental closure projects were provided as near-term risk reduction activities.
  – Develop a F-Tank Farm Deactivation Plan; submit Revision 0 F-Area Tank Farm Deactivation Plan by 6/30/20.
  – Demonstration of Ancillary Structure Closure (FDB-5 & FDB-6) Operational Closure – 12/31/22 & submittal of an Explanation of Significant Difference to the F-Area Tank Farm, Tanks 17F & 20F Record of Decision or Interim ROD (as appropriate).

• Other supplemental closure activities were added as new milestones or project accelerations.
  – Support Tank Closure Cesium Removal – Water addition to Tank 9H to begin salt dissolution by 9/30/20.
Dispute Resolution Agreement (DRA)

- SWPF commencement of operations Force Majeure report issued 2/1/19; Force Majeure extension was accepted on 2/29/19 & 5/24/19. Current deadline is 1/20/20.

- Received deferment of salt waste processing quantities not achieved through FY19 due to Salt Waste Processing Facility approved Force Majeure.
  - Cumulative agreed through FY19: 9.07 Mgal. via ARP/MCU, SWPF, & TCCR (expected SWPF OPS starting 12/31/18).
  - Cumulative actual through September FY19: 2.28 Mgal.

- Pre-Force Majeure extension, DRA salt waste processed volume for FY20 (assumed Salt Waste Processing Facility operations beginning in 3QFY19) operating up to 5.4 Mgal. through Salt Waste Processing Facility in FY20 plus 1 Mgal. processed through TCCR. Due to the Salt Waste Processing Facility approved Force Majeure, FY20 quantities may not be reached.

- Complete TCCR technology feasibly evaluation by 9/30/19; Completed 9/26/19.
FY19 Parsons Priorities and Performance Results

- Design, build & operate for one year, a facility that reduces radioactive waste volume requiring vitrification that separates low volume/high activity waste (strontium, actinides, & cesium) for treatment at DWPF & separates high volume/low activity salt waste treated & disposed of at the SPF.
- Approved Radioactive Waste Management Basis – October 2018
- Completed Westlock Controller Replacements – October 2018
- Approved Commissioning Plan – December 2018
- Completed Construction of NGS facility – December 2018
- Completed System Operability Testing & Integrated System Operability Testing and Reports – April 2019
- Completed Integrated Water Runs – April 2019
- Commenced Cold Commissioning (CC) phase – April 2019
- Completed Lab startup – September 2019
- Negotiated & Approved CLIN 0006 Contract Proposal – September 2019
FY20 Parsons Key Scope/Priorities

- Design, Build & operate for one year, a facility that reduces radioactive waste volume requiring vitrification that separates low volume/high activity waste (strontium, actinides, & cesium) for treatment at DWPF & separates high volume/low activity salt waste treated & disposed of at the SPF.

- Negotiate & Approve CLIN 0007 & CLIN 0008 proposal – concluded October 2019; no modifications executed

- Approved Transition to Operations Plan* – October 2019

- Completed Management Self Assessment-3 * – November 2019

- Implementation Verification Review * - November 2019

- Implemented Safety Basis (SB)* – November 2019 (pre-ATO)

- Complete CORR – November 22, 2019

- Complete CC- December 2019

- Negotiate Next Generation Solvent Facility (NGS) Cold Standby Proposal - December 2019

- Complete DOE ORR – pending CORR actions resolution

- Achieve CD-4 & Authorization to Operate (ATO) – pending completion of DORR

- Commence Hot Commissioning (HC) – pending CD-4 and ATO achievement

- Commence Operations – 2 months post HC

* Achieved Milestones
Dates in purple are forecasts
Parsons Contract, Performance Indicators, Safety & Security Performance, Risk

- Name: Parsons Government Services
- Type: Cost Plus Incentive Fee
- Scope: Salt Waste Processing Facility
- Award Value: $328,445,235
- Current Value: $2.22 B
- Award Date: 9/17/02
- Performance Period: No fixed performance period. Hot commissioning and 1-year operations are estimated to be completed by mid to late 2021.
  - Negotiations completed on CLIN 006. Fact finding concluded on CLINs 7 & 8 with no changes.
- Fee-Bearing Milestones: DCPT, Declaration of Readiness for DOE to commence ORR.

<table>
<thead>
<tr>
<th>Safety Performance Indicators through September 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2019 Rates</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>TRC</td>
</tr>
<tr>
<td>DART</td>
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<table>
<thead>
<tr>
<th>Nuc Safety</th>
<th>Fire Protect</th>
<th>Ind/OCC Safety</th>
<th>Process Safety</th>
<th>Rad Protect</th>
<th>QA</th>
<th>SRS</th>
<th>MSHA</th>
<th>Overall</th>
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<tbody>
<tr>
<td>N/A</td>
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<td></td>
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**Performance Indicators**

<table>
<thead>
<tr>
<th>CPI Period</th>
<th>CPI Cum</th>
<th>CPI Trend</th>
<th>SPI Period</th>
<th>SPI Cum</th>
<th>SPI Trend</th>
<th>Notes</th>
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<tbody>
<tr>
<td>0.76</td>
<td>0.99</td>
<td></td>
<td>0.99</td>
<td>0.99</td>
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<td>Aug 2019</td>
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</tbody>
</table>

* CLIN006 Performance indicators reflected through September 2019.

**Key Risk Considerations**

- Address MSA-3 & IVR corrective actions.
- Implement Safety Basis.
- Emergency Preparedness.
- Complete Contractor & DOE ORRs.
Parsons Contract/Regulatory Milestones Key Regulatory Documents/Negotiations

- Contract Milestone: Readiness to Commence DOE ORR (12/31/19)
- Regulatory Milestone: None
- Key Regulatory Documents/Negotiations: None

### Key SWPF Milestones

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Forecast Date*</th>
<th>Baseline Date^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Cold Commissioning</td>
<td>Oct-2019</td>
<td>Aug-2019</td>
</tr>
<tr>
<td>Begin Contractor ORR</td>
<td>Nov-2019</td>
<td>Aug-2019</td>
</tr>
<tr>
<td>Begin DOE ORR</td>
<td>Dec-2019</td>
<td>Sept-2018</td>
</tr>
<tr>
<td>CD-4 approval</td>
<td>Feb-2020</td>
<td>Nov-2019</td>
</tr>
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</table>

*September 2019 Forecast
^ June 2018 Provisional Baseline