

## INFRASTRUCTURE DESCRIPTION

### UTILITIES

#### Electric Power

##### **State as of 11/30/06:**

- Electrical power supplied under contract from the South Carolina Electric and Gas Co. (SCE&G) 115 kV distribution system through three power lines into the site, with a combined capacity of 656 mW.
- System feeds to area substations to operating facilities.
- Peak demand approximately 52,000 kW.
- System includes 114 miles of overhead grid with associated hardware, 18 miles of underground, over 300 pad mounted transformers.
- System in reasonably good repair, and do not require major capital repair.
- System services all site areas.
- Staffing of 29 FTE, cost (including power) of ~\$19M

##### **Work Scope 12/1/06 thru 9/30/11:**

- Demand will increase about 42% above current average load due to construction and operation of new facilities for new missions in F and H Areas.
- Initiate work to upgrade grid to meet new missions and maintain current distribution systems to address electrical code deficiencies, replace aging equipment, install static lines.
- Changes in site demand will require reconfiguration and load balancing.
- Install a site data acquisition system to increase reliability and system monitoring.
- Continue required maintenance operations on site distribution system.
- Amend contract with SCE&G to accommodate increased demand, or identify additional power sources.

##### **Work Scope 10/1/11 thru 9/30/16:**

- Continue required maintenance operations on site distribution system.
- Anticipated early load increase of 11% due to new operations coming online, with demand decline beginning in FY15.
- Continue/complete system upgrade and consolidation projects from previous period.

##### **Assumptions:**

- Power consumption will trend upward beginning in FY06 to accommodate new approved missions.
- D&D activities and new mission will require rebalancing and reconfiguration of the system.
- Aging infrastructure will require additional maintenance and upgrading past FY06.

**Risks:**

- Unplanned failure of aging equipment without repair parts will necessitate major upgrades earlier in the period.
- Unplanned increases/decreases in new mission and D&D activities will affect maintenance requirements and major upgrades.
- Budget issues may require the deferment of required upgrades increasing system failures.
- Exceptional weather events may adversely affect site distribution system causing unplanned major repairs/upgrades.

**Steam**

**State as of 11/30/06:**

- Steam is generated and distributed from facilities in A, D, (both coal fired) and K Areas (oil fired).
- Steam generating facility in H-Area is in cold standby condition.
- The F/H/S-Area steam demand is currently supplied from the D-Area cogeneration facility. **revised**
- The K and L Area steam demands currently met with the oil-fired package boilers in K Area.
- Staffing of 47 FTE, cost of ~\$20M
- Steam capacities are shown in the following table:

**Steam Capacities and Average Flow**

<i>Area</i>	<b>Design Capacity Klbs/yr</b>	<b>Number of Boilers</b>	<b>Average Daily Flow, PPH</b>
<b>A</b>	1,051,200	2	30,000
<b>D</b>	11,563,200	4	120,000
<b>H</b>	1,576,800	3	In standby
<b>K</b>	788,400	2	15,000*

*\*Includes K and L areas Usage  
PPH - pounds per hour*

**Work Scope 12/1/06 thru 9/30/11:**

- Deactivate the A Area coal fired steam plant and replace with oil fired units to reduced A Area activity by FY09.
- Install package boilers in F/H/S Areas to meet reduced steam load.
- Maintain steam plants and intra-inter area distribution lines to provide required steam.
- Reduced steam requirements due to ongoing D&D activities.

**Work Scope 10/1/11 thru 9/30/16:**

- Replace D Area steam plant by FY13.
- Maintain steam plants and intra-inter area distribution lines to provide required steam.
- Reduced steam requirements due to ongoing D&D activities.
- Reconfigure steam distribution due to changing site needs.

**Assumptions:**

- Continued site D&D will reduce steam needs.
- K and L Area plants will require no major capital investments.
- D Area steam plant can be operated to FY13.
- Funding for required replacements is available.

**Risks:**

- Unplanned D Area steam plant outages could jeopardize current and future site missions.
- Non-availability of funding for system replacements and modernization.
- Site mission changes beyond available steam production.

**Water**

**State as of 11/30/06:**

- System composed of deionized (DI) water, service/well water and process cooling water.
- System includes wells, distribution systems, deionized water systems, chemical treatment facilities and cooling towers. The basic configuration has remained basically unchanged since their original installation.
- Domestic water system distributes water to site population via 32 miles of intra-area and 26 miles of inter-area piping.
- Process water provides water for once-through cooling, make-up water for cooling tower water systems, feed to the deionized water system (water treated to remove both anions and cations), boiler feed water, fire water storage tanks, and for flushing and wash-down.
- Current total water demand is shown in the following table:

**TABLE 1**

<b>Area</b>	<b>Number of Wells</b>	<b>Total Pumping Capacity (MGD)</b>	<b>Peak Demand (MGD)</b>
A	2	3.24	1.22
F	4	3.74	1.80
H	4	5.33	2.02
L	2	0.72	0.58
K	2	1.15	1.08
S	2	2.88	0.43

- The 285-F cooling tower has recently been replaced.

- Total Site Process Water demand currently averages 2.46 MGD (million gallons per day).
- River water provides 7.32 MGD to L and K areas, to L Lake to maintain ecological habitats and PAR Pond as necessary. System consists of 50 miles of 46 to 84 inch piping and one pump station.
- No major upgrades required.
- Staffing of 55 FTE, cost of ~\$9M.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain required water systems.
- F Tank Farm cooling water system becomes operational, eliminating process water requirements in F Area.
- Modify distribution systems in response to D&D activities and new mission requirements.
- Begin closure of 50+ abandoned water wells to meet SCDHEC requirements.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain required water systems.
- Process Cooling Water will not be required in H-Area after the deactivation of the Canyon Building in FY13.
- Complete closure of 50+ abandoned water wells to meet SCDHEC requirements.
- Modify distribution systems in response to D&D and new mission requirements.

**Assumptions:**

- Service/well water supplied to 2021.
- DI water demand will decrease to zero by 2009.
- Service/Well Water demand will decrease by over 50% by 2011.
- Process Cooling Water demand will decrease by 50% by 2011.
- Process Cooling Water will no longer be required in F-Area after 2006 when the modifications to the F Tank Farm cooling water system replace the 285-F cooling tower.
- River water will be required as currently identified.
- System is capable of providing required water by type.
- Site population reductions after FY06 will reduce domestic water needs during the contract period.

**Risks:**

- New missions will require unforeseen additional water or significant modifications to current system.
- Premature system failures will require major repairs replacement.
- New water safety requirements may impose significant changes to the treatment/distribution of water.
- Significant well closure issues identified by regulators.
- Weather or geologic impacts affecting water availability.

## Fire Water System

### State as of 11/30/06:

- Twelve fire water systems with ground level or elevated storage tanks, pumping stations, distribution system piping, and hydrants. See table below.

**Table 1 - SRS Firewater Systems**

Fire System	Pump Type	Capacity (gpm)	Max Demand (gpm)	Comments
A/M	Electric	1000	1291	Includes A and M pump stations.
	Electric	2000		
	Diesel	1500		
B	Electric	2500	1351	
	Diesel	2500		
C	N/A	N/A	752	Supplied from A-Area domestic system.
D	N/A	N/A	1000	SCE&G operates pumphouse.
F	Electric	2500	3560	
	Electric	2500		
	Diesel	2500		
Forestry	N/A	N/A	907	Elevated tank pressurizes system.
H	Electric	2500	3515	
	Electric	2500		
	Diesel	2500		
K	Electric	2500	947	
	Diesel	2500		
L	Electric	315	1500	
	Electric	800		
	Electric	800		
N	Electric	2500	2025	
	Diesel	2500		
S	Electric	2000	1037	Pumphouse operated by DWPF.
	Diesel	2000		
Z	Electric	1000	1840	
	Diesel	1000		
Totals:		42415	19725	

- Over 400 hydrants and 900 isolation valves, and 200 building suppression systems.
- Significant portions of the distribution systems were newly installed within the last 15 years.
- Twelve dedicated fire water storage tanks with a combined capacity in excess of 4,000,000 gallons.
- Maximum total demand based on the highest demand buildings served by each system, is 19,725 gpm.
- Total pumping capacity is 42,415 gpm.
- Staffing of 15 FTE, cost of ~\$2M

### Work Scope 12/1/06 thru 9/30/11:

- Maintain current fire water systems on site.

- No reduction in fire water demand during the period projected.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain current fire water systems on site.
- Reduce demand beginning FY14 and to out years as area closures are completed.

**Assumptions:**

- D&D progresses at current/reduced rate.
- Recent upgrades obviate major system repairs.
- No major unplanned system failures.
- Distribution system is correctly configured to support new missions.

**Risks:**

- Unanticipated system failures requiring major expenditures to retain operational capability.
- New missions require unanticipated changes to equipment and site distribution system.
- Future NFPA regulation changes create non-compliance issue.

**Sanitary Wastewater**

**State as of 11/30/06:**

- Central Sanitary Waste Treatment Facility (CSWTF) system has a 1.05 MGD treatment plant, 12 lift stations and 18 miles of inter-area sewer line serving nine site areas (A, B, D, E, F, H, N, S and Z Areas), with an additional 32 lift stations and about 40 miles of sewer piping within those areas.
- CSWTF installed in 1994-95, located near F Area.
- CSWTF processes 97% of site wastewater.
- CSWTF is currently treating an average of 0.258 MGD of sanitary wastewater.
- Much of the piping and distribution systems are 30+ years old or older.
- Small package plants are located in D, L, and K areas.
- Wastewater generated in D, K and L Areas is treated by small package plants with treatment capacities ranging from 0.023-0.035 MGD or 4-13% of capacity.
- CSWTF provides treatment for periodic discharges of wastewater containing low level concentrations of chemicals and radionuclides from various site facilities.
- Current load primarily population driven.
- Staffing of 8 FTE, cost of \$1.4M.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain current sanitary water systems to applicable standards.
- Replacement of CSWTF UV disinfection system.
- Repair or replace lift stations wet wells and control and pumping systems as required.
- Repair or replace sewer lines to prevent excessive rainwater infiltration
- Load increase by 45% from 0.258 MGD to 0.374 MGD through 2007 as various outfall discharges are rerouted to the sanitary sewer system, and then drop by 15%

from 2007 to 2011 due to population decreases, project effects, and facility deactivations.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain required sanitary water systems to applicable standards.
- Repair or replace lift stations wet wells and control and pumping systems as required.
- Repair or replace sewer lines to prevent excessive rainwater infiltration.
- Deactivate D Area package plant in FY16 as D&D progresses.

**Assumptions:**

- System load to decline gradually over FY06-16 period following spike in FY06-07.
- CSWTF in good condition.
- New missions and population decreases are off setting.
- Regulatory requirements will not change significantly.
- Weather and geologic activity will remain at normal levels.

**Risks:**

- Extreme, prolonged wet weather could overload the system and cause damage to piping and process systems without adequate upgrades.
- ES&H violations associated with outfall water processing could impair the system.
- Unplanned system failures resulting from deferred maintenance or funds availability.
- New sanitary water processing standards could impose unplanned system upgrades.

## INFRASTRUCTURE MAINTENANCE

### Ponds and Dams

#### **State as of 11/30/06:**

- Two high hazard dams (Par Pond Dam (~2.7K acre pond) and L Lake or Steel Creek Dam) and 10 low hazard dams (Pond A, Pond B, Pond C, Pond 2, Pond 4, Pond 5, Skinface, Old Fire Pond, New Fire Pond, and A01 Outfall) and associated water bodies.
- All are earthen dams.
- Pond dam structures do not comply with Federal Energy Regulatory Commission guidelines.
- Staffing of 1FTE, cost of ~\$250K

#### **Work Scope for 12/1/06 thru 9/30/11:**

- Continue to maintain two high hazard and 10 low hazard dams on site, associated water bodies, and required water levels.

#### **Work Scope for 10/1/11 thru 9/30/16:**

- Continue to maintain two high hazard and ten low hazard dams and associated water bodies and required levels.
- Rehabilitation of Pond 2 and 5 dams.

#### **Assumptions:**

- Ponds used for fire protection continue to be required.
- Dams are stable.
- SREL continues performing ecological experimentation on site.
- Remediation activities in contaminated ponds are not initiated or incomplete requiring dam maintenance to maintain water levels for sediment shielding.
- No monitoring instruments or original construction data available.
- Available funding will be limited requiring innovative solutions to providing required services.

#### **Risks:**

- Commercial dam requirements are applied to Federal dams requiring increased monitoring and unanticipated maintenance.
- Geologic or weather related events causing unanticipated damage and repair to existing dams.
- Unpredictable dam failure.

### Roads and Bridges

#### **State as of 11/30/06:**

- The SRS road system consists of 133 lane miles of primary roads with 17 bridges and culverts.
- Secondary road network consists of ~1200 miles (maintained by the U.S. Forest Service).
- All bridges replaced within the last eight years.

- Major road work complete.
- Staffing of 6 FTE, cost of ~\$2M
- Daily road maintenance (sign repair, pothole repair, minor restriping) performed by contractor with major work by subcontractors.
- Five classifications of roads exist on site:

**Table 1 – Road Classifications**

Classification		Centerline Miles
High	HI	43
Above Average	AA	13
Average	AV	30
Minimal Service	MS	15
Very Low	VL	9

**Work Scope 12/1/06 thru 9/30/11:**

- Major road work activities expected to resume on FY08 time frame.
- Routine inspection and minor repairs to road network and bridges will continue.
- Reductions in site population and facilities D&D'd will reduce number of vehicles on site daily by approximately 2500 primarily during shift change.
- Some road classifications will be reduced downward reflecting reduced usage and mission.

**Work Scope 10/1/11 thru 9/30/16:**

- Anticipated reduction in road classifications by at least one category due to site population reductions and mission evolution.
- Routine roadway and bridge inspection and maintenance to continue.
- No major bridge work anticipated until after contract period.
- Potential reduction of 15 miles of primary roads to secondary roads.

**Assumptions:**

- Site population will continue to trend downward with resultant reduction in vehicle traffic.
- No significant mission changes requiring new road construction.
- Normal weather and geologic activity patterns.
- Funding to remain constant to enable routine repairs and maintenance.

**Risks:**

- Increase in inclement weather or geologic events could cause additional unanticipated road and bridge repair and maintenance costs.
- New mission requirements dictate new road and bridge construction.
- Life expectancy estimates of current road bridge infrastructure not accurate.

**Communications Systems and Support Services**

**State as of 11/30/06:**

- Provide operations, engineering, and maintenance support for the site communications backbone infrastructure, frequency management, The South Carolina Relay Station, radios, pagers, and Site Safety Alarm (public address) System.
- Wireless communications program consists of VHF and UHF radio, and a VHF paging system supporting 10,000 pagers and 3400 radios (1900 VHF, 1500 UHF).
- The VHF system (supports security, fire and site utilities) consist of 13 repeaters, two controllers, one building, one communications tower, one Central Electronics Bank (CEB) and one communications console with 911 dispatch.
- The UHF radio system is used by operational and maintenance organizations and consists of one repeater, one building and one tower.
- The paging system serves ~10,000 customers.
- Staffing of 13 FTE, cost of ~\$2.3M.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain communications, support systems and infrastructure.
- Examine alternate replacement technologies.
- Significant paging system repairs/upgrades due to system age.
- Significant public address system repairs/upgrades due to system age.
- Reconfiguration of site public address system due to D&D activity.
- Scope reduction of 16 % in radios and pagers as a result of site population reductions during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Scope reduction of 29% in radios and pagers as a result of site population reductions FY11 to 21.
- Maintain communications, support systems and infrastructure.
- Continue reconfiguration activities due to D&D of facilities and areas.
- Adoption of cellular technologies to replace radio and pager systems.

**Assumptions:**

- Current VHF system is in good condition.
- Current UHF, paging and public address systems are in average to poor condition.
- Major system upgrades/technology shifts will be required in the out years.
- Overall system infrastructure for all capabilities will be required through the out years to meet site safety requirements.
- Reduction in individual radios and pagers will occur as site population declines.

**Risks:**

- Significant unanticipated system failures due to age.
- Reduction in funding reducing required personnel, maintenance capabilities and upgrades.
- Non-availability of repair parts for older systems.
- Accelerated D&D activities or mission changes requiring major system reconfigurations.

## **Administrative Buildings**

### **State as of 11/30/06:**

- Approximately 250 structures, including permanent and modular facilities, classified as office facilities for personnel not housed in process facilities.
- Office space inventory of ~8,100 spaces.
- Occupancy rate exceeding 80%
- Utilization is tracked real time with an interactive data base providing facility specific data.
- Condition assessments are performed periodically on the roofing systems and predictive and preventive maintenance is performed on heating, ventilation and air conditioning (HVAC) systems.
- Maintenance and repair of these structures have been curtailed, with the exception of safety-related repairs.

### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain available inventory to ensure habitability and safety-related repairs accomplished.

### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain available inventory to ensure habitability and safety-related repairs accomplished.

### **Assumptions:**

- D&D activities will continue to reduce the site housing inventory.
- Funding will be available to sustain minimal repairs and safety related issues.
- Site population will continue to decline
- Site population increases due to new mission will be absorbed in current inventory.
- No new construction outside of new mission facilities.

### **Risks:**

- Need for large number of temporary office spaces cannot be met.
- Available funding inadequate to address basic maintenance requirements.
- D&D schedule may create space/proximity to work issues.

## **Electric Motor Maintenance**

### **State as of 11/30/06:**

- 722-4A Motor Shop performs maintenance, rewind, repair, vibration analysis, laser alignment, AC/DC motor rewinds, lathe operation, DC armature turning/slotting, endbell refurbishment to factory specifications, and field balancing of electric motors.
- Performs electrical testing of high and low voltage gloves, rubber blankets, rubber overshoes, hot sticks, and glowtectors, and installation/removal of radios, light bars, and sirens in site vehicles.
- Most site electric motors are not scheduled for preventative maintenance.

- ~500 jobs scheduled through the shop representing ~3200 man hours. Backlog is ~300 man hours.
- Staffing is 2.5 FTEs and a cost of ~\$570K.

**Work Scope 12/1/06 thru 9/30/11:**

- Perform electric motor maintenance and associated tasks during the period.
- Service demand decline of ~10% during the period due to service retirements and D&D activities.
- Work primarily corrective maintenance.

**Work Scope 10/1/11 thru 9/30/16:**

- Perform electric motor maintenance and associated tasks during the period.
- Service demand decline of ~20% during the period due to service retirements and continuing D&D activities.
- Work primarily corrective maintenance.

**Assumptions:**

- Motor maintenance and associated tasks will be required.
- No new work is projected.
- Funding will continue to be tight.
- Personnel are long service, highly skilled.
- Innovative methods for performing the work may be required based on funding availability.

**Risks:**

- Site workforce reductions will adversely affect shop competencies.
- Unanticipated new work may degrade repair schedule/shop capabilities.

**Shop Fabrication and Welding Support**

**State as of 11/30/06:**

- 717-A Fabrication Shop provides fabrication and welding support for all site organizations and other DOE customers, acts as the broker for all general site fabrication work and manages overflow work from other site fabrication shops.
- The largest fabrication shop on site and is equipped with an array of fabrication equipment including, metal forming machines, shear, and WaterJet cutting machine.
- 400 orders per year are processed to support HLW, NMMD processing support, inventory efforts at the L and K-Area Basins and SRNL.
- Job scope varies from small repair support to major fabrications.
- Subcontracts with local shops are in place to perform fabrication support when site requests exceed the shop's manpower availability.
- Staffing is 7 FTEs and a cost of ~\$1M.
- ~14K man hours of work performed with ~800 man hour backlog, and priority work accounting for ~20% of job orders.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain programmatic capability in the area of welding and fabrication to support site mission.
- Begin Standard Large Box (SLB) fabrication and DWPF canister fabrication work increasing work load 62% to ~32K man hours per year.
- Workload will decrease ~8% as a result of facility D&D.
- New equipment procurements to support SLB and DWPF of ~\$160K.
- Consolidate site fabrications shops (5) to one location.
- Procure replacement production equipment.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain programmatic capability in the area of welding and fabrication to support site mission.
- SLB campaign ends in FY10 reducing work load by ~9K man hours/year to ~21K mh/y.
- DWPF campaign continues through period.
- Procure replacement production equipment.
- Work scope will decrease ~50% through FY21 as a result of facility D&D work and end of SLB campaign.

**Assumptions:**

- Fabrication and welding services will continue to be needed for site mission support.
- SLB and DWPF campaigns will be approved for onsite fabrication.
- New equipment purchases to support SLB and DWPF if programs approved.
- Aging equipment will require replacement during both periods.
- Funding will continue to be tight, requiring innovative solutions.

**Risks:**

- SLB and DWPF campaigns not approved, reducing workload requirements.
- Funding unavailable to replace aging equipment reducing capability.

**Electrical Breaker Maintenance****State as of 11/30/06:**

- 722-4A Breaker Shop performs maintenance, calibration, overhaul, retrofits, repair, and troubleshooting activities on 1680 low voltage power circuit breakers and 250 medium voltage breakers.
- Breakers are of various types from different manufacturers and are functionally classified as SC, SS, PS and GS.
- Site breakers are generally in good condition due to active preventive and corrective maintenance programs, however much of the equipment is old and many breakers have been in service since the start up of many site facilities in the 1950s. Older breakers are salvaged for parts as they are retired.
- Staffing is 7 FTEs, and a cost of ~\$800K.
- ~350 breaker jobs are performed per year representing ~8400 man hours of labor. Backlog of work is ~4000 man hours.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain breaker maintenance and repair capability in support of site mission.
- Demand decrease of ~18% during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain breaker maintenance and repair capability in support of site mission.
- Demand decrease of ~16% during the period through FY21 as D&D work continues.

**Assumptions:**

- No capital replacement/upgrades projected for the Site Breaker Shop.
- Breaker maintenance program will be required to support site missions.
- Funding will remain tight requiring innovative solutions to work performance.
- Activity will decline commensurate with D&D activities.

**Risks:**

- Older breakers will not be repairable due to lack of repair parts, and require unplanned replacement.
- Funding constraints will limit shop ability to meet site requirements.

**Diesel Support****State as of 11/30/06:**

- Diesel Support provides services site wide for installed emergency diesel generators. This service group also provides support for calibration of process electrical relays and meters and performs modifications for GSA vehicles.
- All preventative and corrective maintenance actions on ninety-eight (98) stationary diesels to include eight (8) different manufactures (Detroit, Cummings, Caterpillar, Waukesha, EMD, GM, Onan and Ford).
- Maintenance of overhead doors, refurbishment of intermodal containers and warehouse preventative maintenance.
- Supports new facility installations and start-up, and maintains diesels classified as SS, SC, PS and GS, and responds to site loss of power emergencies.
- Site diesel systems are generally in good condition.
- Staffing of 13 FTE, cost of ~\$3M.
- Processed ~1300 work orders accounting for ~20K man-hours with ~9 weeks backlog.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain installed emergency diesel generators to standard in support of site mission.
- Identify and assign unrelated work relating to maintenance of overhead doors, refurbishment of intermodal containers and warehouse preventative maintenance to appropriate site work group.
- Perform lay up/storage work for diesels being removed from service due to site D&D and related activities.
- Service demand projected to decrease by 14% through 2011.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain installed emergency diesel generators to standard in support of site mission.
- Perform lay up/storage work for diesels being removed from service due to site D&D and related activities.
- Service demand for Diesels Services is projected to decrease by 27% through FY21.

**Assumptions:**

- Diesel maintenance services will be required through both periods on a declining need as site D&D and reconfiguration continues.
- Funding will remain tight requiring innovative approaches to work performance.
- Frequency of preventive maintenance work will continue.
- No known upgrades are planned.

**Risks:**

- Reduction in frequency of preventive maintenance services to effect cost savings will adversely affect emergency generator response with a direct impact on mission and personnel safety.
- Funding reductions will adversely affect maintenance activities and emergency response readiness.

## TRANSPORTATION

### Fleet Management

#### **State as of 11/30/06:**

- Fleet Management acts as a single point of contact for site vehicle needs; and provides life cycle management for the DOE owned vehicles.
- Current fleet size of 950 vehicles, with ~80 specialized DOE owned vehicles, such as roll-off trucks, ambulances, fire trucks and compactor trucks. Majority are administrative, light duty vehicles, such as sedans, pick up trucks under GSA.
- Condition of fleet is good.
- Compliant with DOT, OSHA, and other regulatory agency requirements as well as site requirements for vehicle fleet.
- GSA vehicles shuttled off site for repairs, prepping new vehicles for assignment, handling customer complaints, prioritize vehicle repairs, and assigning PM notices.
- DOE specialized fleet maintained on site.
- Staffing includes 12 FTEs and a cost of ~\$5.5M.

#### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain vehicle fleet is accordance with applicable requirements and site mission needs.
- Replace DOE owned fleet vehicles as required to support D&D mission, other specialized requirements.
- Tailor administrative fleet to anticipated site population reductions and overall need.
- Increase size of specialized fleet to meet increasing D&D and new mission requirements.

#### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain vehicle fleet is accordance with applicable requirements and site mission needs.
- Tailor administrative and DOE owned fleet to anticipated site population reductions and overall mission needs.
- Replace DOE owned fleet vehicles as required to support D&D mission, other specialized requirements.

#### **Assumptions:**

- Fleet size will remain fairly constant during first period.
- Administrative vehicle reductions will accelerate as site population declines.
- DOE owned fleet will remain steady to increasing as D&D, new site mission increases through FY13.
- DOE owned fleet will require additional maintenance/replacement as D&D progresses.
- Funding will remain constant to declining through both periods.

#### **Risks:**

- Aggressive D&D schedule will put additional demands on the aging specialized fleet component requiring additional maintenance/early replacement.
- Specialized fleet size/mix will be insufficient to handle site requirements for D&D new mission.
- Funding is reduced beyond current out year expectations.

## **Railroads**

### **State as of 11/30/06:**

- The railroad consists of 63 miles of track with only 33 miles (Current FRA Class 1) in service, 2 locomotives, and 14 rail cars.
- Approximately 300 moves per year.
- Sufficient 90 lb. track is stocked for rail repair operations through 2025.
- Primary activities include cask car movements, large casks/bulk materials from the site boundary, and other materials to offsite locations.
- Rail personnel are part time to other site transportation requirements.
- Staffing of 9 FTE, cost of ~\$3M

### **Work Scope 12/1/06 thru 9/30/11:**

- Movements increase to approximately 1,400 to support shipments offsite through FY07.
- Expect 10 moves per year until FY10, then 180 moves per year through 2025.
- Excess one locomotive during FY07 following shipment peak.
- Abandon selected rail line as site D&D and operations warrant.
- Maintain remaining site rail system and rolling stock.

### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain remaining rail lines and rolling stock.
- Maintain capability for 180 moves per year, assuming opening of Yucca Mountain repository.
- Abandon selected rail line as site D&D and operations warrant.

### **Assumptions:**

- Rail service will be required to move large equipment items and large material quantities.
- Rolling stock is in good condition with 15 year life span.
- Locomotive service life extends to 2025.
- Track condition can be maintained to standard with available resources.
- DU oxide shipments will conclude in early FY07.
- Yucca Mountain repository will open by FY10.
- Retention of Class 1 rail bed classification.

### **Risks:**

- Large shipment volume through FY06 will adversely impact locomotive, rolling stock, and track bed life beyond available maintenance funding.
- New site missions requiring a two locomotive support base after FY07.
- Impact of forced reduction to a Class 1 road bed standard on shipment capability.

## **Trucking**

### **State as of 11/30/06:**

- Centralized Trucking provides just-in-time trucking support for all divisions supporting both radioactive and non-radioactive hauling and has the capability to handle loads up to 230 tons.
  1. Performs ~7600 moves per year in support of site mission.
  2. TRU drum program in support of F Canyon, D&D activities, and Soil and Ground Waste Closure Projects are current major activities.
  3. Staffing of 15 FTEs, and a cost of ~\$1.8M.
- Waste Hauling provides all clean and contaminated waste hauling for the site except those projects covered by the Davis Bacon Act and the Project Labor Agreement.
  1. Primary methods used are B-25 box, compactor, load lugger, roll-off and sealand containers.
  2. ~50,000 container moves are made per year.
  3. D&D support is major focus.
  4. Staffing of 24 FTEs, and a cost of ~\$2.1M

### **Work Scope 12/1/06 thru 9/30/11:**

- Consolidate all trucking activities into one group.
- Provide trucking and waste hauling services in support of site mission.
- TRU drum campaign in support of F Canyon and soil and ground water project ends/declines, reducing 3 driver FTEs.
- D&D evolution will change hauling equipment mix requirements, increasing use of sealand containers and roll off pans.
- Load luggers phased out by 2010.
- Replace chain roll offs with cable operated roll offs.
- Pan high use requires estimated replacement of ~75/year based on current usage.
- Replace older ('80s) rad waste trailers due to high use and age.

### **Work Scope 10/1/11 thru 9/30/16:**

- Provide trucking and waste hauling services in support of site mission.
- Mission requirements stable during period as D&D work continues.
- Equipment replacements continue due to wear, age, and mission equipment needs.

### **Assumptions:**

- Trucking and waste hauling services will be required in support of ongoing mission and D&D work.
- Equipment replacements/upgrades will be required in both periods.
- Funding will remain tight requiring innovative solutions to mission performance and equipment replacements.
- Work requirements will be primarily D&D driven during both periods.

### **Risks:**

- Funding insufficient to provide needed replacements impacting mission accomplishment.

- Accelerated D&D work may force equipment replacements faster than anticipated.

## **Fuel Management**

### **State as of 11/30/06:**

- Manages the site's 9 fuel stations and 2 bulk facilities, containing gasoline, diesel, ethanol fuel tanks and dispensers.
- Procures all site fuels.
- Ensures compliance with EPA, OSHA, SCDEHC, and other regulatory agency requirements for fuel tanks.
- Current total fuels usage is ~1.9M gallons per year.
- Staffing is 3 FTEs and a cost of ~\$400K.

### **Work Scope 12/1/06 thru 9/30/11:**

- Management site fuel bulk facilities and dispensing stations procure fuels, prepared required reports, and comply with regulatory requirements in support of site mission.
- Consolidate fueling stations and facilities as D&D progresses and site missions evolve.
- Replace automated fuel dispensing computer system by late FY 07 (cost ~\$600K).

### **Work Scope 10/1/11 thru 9/30/16:**

- Management site fuel bulk facilities and dispensing stations procure fuels, prepared required reports, and comply with regulatory requirements in support of site mission.
- Consolidate fueling stations and facilities as D&D progresses and site missions evolve.

### **Assumptions:**

- Fuel support mission will continue to be required during both periods.
- Fuel usage will decline over both periods.
- Fuel usage will decrease ~10% over both periods.
- Staffing to remain stable.
- Funding remains tight requiring innovative solutions.

### **Risks:**

- Funding unavailable to replace AFDS creating operational problems.
- Alternate fuel technologies will require major fuel infrastructure changes/upgrades.

## **Traffic Services**

### **State as of 11/30/06:**

- Provide traffic management functions to include offsite shipping; shipment routing; freight rate negotiations; freight payment; household goods moving;

shipment security compliance, and the Automated Transportation Management System (ATMS).

- Processes ~5,000 shipments annually, 15,000 freight invoices; provides 500 freight carrier routings utilizing DOE's Motor Carrier evaluation Program (MCEP); assures freight payment accuracy of 13,000 invoices using the ATMS.
- Current staffing is 6 FTEs and a cost of ~\$655K.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide traffic management functions in support of site mission.
- Overall decline of ~5% in activity during the period. D&D will continue to be a major portion of traffic management with environmental restoration activities, to include hazardous waste shipments, a significant contributor.
- Consolidate activities where appropriate, and implement innovations to become more cost effective.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide traffic management functions in support of site mission.
- Reduction of 2 FTEs in staff through FY14 as site mission requirements decline and anticipated shipments decline by ~50%.
- Consolidate activities where appropriate, and implement innovations to become more cost effective.

**Assumptions:**

- Traffic management function will be required to support site missions.
- Requirements will decline ~50% primarily during second period.
- Available funding will be limited requiring innovative solutions to mission performance.

**Risks:**

- Funding will be limited.

**Hazardous Materials Transportation**

**State as of 11/30/06:**

- Provides site wide coordination and oversight of Hazmat shipping activities as described in Title 49 - Transportation of the Federal Regulations.
- Group personnel act as the primary contact for hazardous material transportation shipping, by preparing the shipping paperwork, mark, label, and prepare the bill of lading for all hazardous materials (HAZMAT) shipments leaving SRS.
- Supported by an internal group that provides technical and regulatory interpretations, interface with other site groups relating to transportation programmatic issues, data tracking, and peer verifications of all hazardous material shipped from the Site.
- Makes ~1200 hazardous material shipments per year.
- Staffing is 17 FTEs and costs of ~\$2.7M/yr.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide oversight, coordination, and preparation of required documentation of HAZMAT shipping activities in accordance with applicable requirements in support of site mission.
- Activity to remain stable during period in support of D&D and facility closures.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide oversight, coordination, and preparation of required documentation of HAZMAT shipping activities in accordance with applicable requirements in support of site mission.
- Activity to remain stable during period in support of D&D and facility closures.

**Assumptions:**

- HAZMAT shipments will continue through both periods requiring performance of the activity.
- Shipments will remain stable through both periods due to D&D activities, facility closures.
- Available funding will require innovative methods to perform work activities.
- HAZMAT shipping requirements will remain constant.

**Risks:**

- Site reductions will affect skill mix of trained group personnel.
- Changes to HAZMAT shipping requirements will create unfunded programmatic issues.

## **SUPPORT FUNCTIONS**

### **Fire Maintenance Support**

#### **State as of 11/30/06:**

- Performs corrective and preventive maintenance work on fire systems in all SRS facilities.
- Maintains approximately six hundred and ten (610) Fire Systems, with 25% of this work in contaminated areas.
- Includes repairing sprinkler systems, fire protection loops, fire control panels, Halon systems, performs Halon recovery, and system modifications per Fire Protection Engineering direction.
- Work is in compliance with safety and quality requirements, conduct of maintenance requirements, the National Fire Protection Code and applicable DOE Orders.
- Specific work performed includes calibration of pressure and flow switches, calibration of gauges, battery back-up systems load tests, battery replacement, detector sensitivity adjustment, detectors replacement (ionization, photo, heat, infrared), circuit boards replacement, power supplies maintenance, horns/strobes maintenance, HVAC duct detectors repair/replacement, mechanical component repair/replacement, e.g. flow switches/pressure switches/relief valves/gate valves/ball valves/clapper valve assemblies/piping on sprinkler systems, pull stations maintenance, Halon actuators maintenance, and fire dampers and doors maintenance.
- Current staffing is 11 personnel at a cost of ~\$1.7M.
- There are 25 different models and vendors of fire panels on site complicating maintenance, parts and vendor-provided repair services for these systems.
- Average fire system impairments are currently 25 per year.

#### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain existing and new mission facility fire systems and associated equipment in accordance with applicable standards.
- Overall service demand is projected to decline about 2% during the period.

#### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain existing and new mission facility fire systems and associated equipment in accordance with applicable standards.
- Overall service demand is projected to decline about 3% per year to FY21.

#### **Assumptions:**

- Fire system maintenance support will be required throughout the contract period.
- Overall demand for services will be in decline based on D&D activities.
- No new projects are planned.
- Current fire systems are in satisfactory condition.

#### **Risks:**

- Aging equipment, coupled with numerous system types may require unplanned replacement/maintenance.

- Insufficient/ineffective maintenance activities place facilities, mission, and personnel at risk.
- Inoperative/defective systems risk facility shutdown by oversight organizations.
- Fire code changes may require unplanned upgrades.

### **Portable Equipment Commodity Management Center (PECMC)**

#### **State as of 11/30/06:**

- The PECMC provides light and heavy portable equipment (cranes, bulldozers, breathing air compressors, man lifts, track hoes, etc.) to the site.
- Main focus is to increase equipment utilization through centralization thus reducing the amount of portable equipment owned by the site.
- Single point of contact for portable equipment needs, life cycle management for light and heavy portable equipment, and subject matter expert services for purchases.
- Administers the corrective and preventative maintenance program ensuring compliance with DOT, EPA, OSHA, and other regulatory agency requirements,
- Performs trending, utilization surveys, and collects forecasting data and provides applicable information to facility management to assist in managing area and facility portable equipment.
- 1800 pieces of portable equipment in inventory.
- Maintenance for portable equipment is provided by Light Portable Equipment Maintenance and site construction contractor.
- PECMC and Maintenance have a core staffing level of 48 FTEs, (41 maintenance) and a cost of ~\$9.1M.
- The light portable equipment is generally in good condition.
- Heavy equipment, especially earth moving equipment, is aging due to a lack of capital funds for replacement.

#### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain site portable equipment in support of site missions.
- Manage equipment pool in response to an increasing D&D requirement, particularly in the area of heavy equipment.
- Expect an overall 5% workload decrease for portable equipment in the period.

#### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain site portable equipment in support of site missions.
- Manage equipment pool in response to an increasing D&D requirement, particularly in the area of heavy equipment.
- Expect an overall 10 % workload decrease in the period.

#### **Assumptions:**

- Equipment requirements will remain steady during first contract period and decline during the second.
- Heavy equipment replacements will be required as the component ages.
- Leased equipment will be used to a greater degree to meet D&D schedule requirements.

- Site equipment will be used for contaminated D&D work.
- Staffing will remain constant to manage workload.
- Innovative cost savings will be required to match funding with equipment needs.
- Funding will remain tight during both periods.

**Risks:**

- Accelerated D&D schedule will cause higher equipment use levels and additional maintenance/replacement costs.
- D&D work in contaminated areas may incur additional costs of replace of equipment.
- Additional funding reductions will strain operations.

**Machining Support**

**State as of 11/30/06:**

- 717-A Machine Shop provides machining support for all site organizations and other DOE customers. Also acts as the broker for all general site machine work and manages overflow work from the other Site machine shops.
- 717-A Machine Shop is the largest of five machine shops on site and is equipped with over 60 major pieces of equipment (e.g., Bullard Vertical Turret Lathe, Model- Cutmaster; Giddings & Lewis Vertical Boring Mill, Model-72; Monarch Lathe, Model- 25-N; Monarch Tool Room Lathe, Model- 1610; Cincinnati CNC Horizontal Boring Machine; Gilbert, Co-Me-Ta Cylindrical Grinder; Cincinnati CNC Machining Center, Model- Lancer, etc.), including an array of state-of-art Computerized Numerically Controlled equipment.
- Approximately 300 orders per year (~24K man hours) are processed through the shop in support of critical missions such as HLW, NMMD processing support, inventory efforts at the L and K-Area Basins and SRNL's ongoing development efforts.
- 25% of work is priority, and backlog is ~1200 hours.
- Many orders are short lead time, intricate, high precision, high value items such as DWPF Pour Spout components, HB-Line's Agitators and Impellers, FB-Line's Bagless Transfer System / Can-in-Can System and research and development work to support projects such as Hanford's River Protection Project and Hydrogen Technology Development.
- Subcontracts with local machine shops are in place to perform machining support when site requests exceed the shop's manpower availability or requisite equipment is not available.
- Staffing includes 9.5 FTEs (7 machinists), and a cost of ~\$1.2M

**Work Scope 12/1/06 thru 9/30/11:**

- Operate machine shops to meet site and complex demand.
- Net decrease in work load of ~5% by FY11 due to facility deactivations and addition of new work.
- Work includes DWPF canisters and warehouse spare parts.

**Work Scope 10/1/11 thru 9/30/16:**

- Operate machine shops to meet site and complex demand.
- Net decrease in work load of ~10% by FY16 due to facility deactivations and addition of new work.
- New work includes specialized SRNL requests.

**Assumptions:**

- Site operations will remain at a level to support machine shops.
- Additional DWPF and spare parts fabrication work will be approved.
- SRNL viability will support out year work.
- Complex work requests will remain steady.
- Equipment will not require major repairs/replacement.
- Funding will remain steady to declining.

**Risks:**

- Additional work does not materialize.
- SRNL future activities reduced.
- Additional work requires unplanned/unfunded equipment repairs/replacement.

**Electronic Shops****State as of 11/30/06:**

- 722-A Electronic Shop provides repair/calibration and upgrades to site intoxicilyzers, Helium Mass Spectrometer Leak Detectors, used primarily in F & H B Lines, 235-F, 723-A, SRNL/EES, Tritium, N-Area and the Burial Ground, and Passive Aerosol Generators.
  1. Process ~400 instruments using ~2000m/hrs.
  2. Staffing of 1.5 FTEs and a budget of ~\$400k.
- 722-A Personnel Contamination Monitor (PCM) Crew performs preventive maintenance, calibration, and repair of the Site's 182 PCMs. Work includes annual calibrations, corrective maintenance repairs, verifying proper operation of each monitor by performing weekly source checks, and replacing P-10 gas cylinders.
  1. Site PCMs are obsolete compared to today's technology.
  2. Staffing is 10 FTEs and a budget of ~\$1.1M.
  3. Scheduled work level is ~16K man hours per year, with a 1.7K backlog.
- 735-2B Radiation Measuring Equipment (RME) Calibration and Repair shops repair and calibrate approximately 10,000 pieces of RME annually.
  1. 800-1000 portable Radiological Monitoring Instruments are received, calibrated, and/or repaired monthly.
  2. Instruments include but not limited to the following: R0-2, R0-2S1, R0-2S2A, R0-20,Bicron, R0-7, Ludlum-12 Alpha, Ludlum-12 Beta, Ludlum177, ASP-1, Sintrex 209&309, Teletector, Electras, Ludlum3-6, RME for special applications.
  3. Perform preventive maintenance, calibration, and repair of the ~1200 semi-portable RME Instruments used on site.

4. Services are also periodically provided to other DOE Facilities, Homeland Security, and the U.S. Air Force.
5. Staffing of 10 FTEs and a cost of ~\$1.5M, workload of ~16.7K man hours per year.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain operations performed in 722-A Electronic shops, and 735-2B RME shop in support of site and off site work.
- 722-A Electronic shop work expected to decline ~17% during the period as D&D of process facilities increases.
- PCM work expected to decline ~20% during the period as D&D of process facilities increases and replacement of instrumentation with new technologies occurs.
- RME shop work load to decline about 8% during the period as D&D of process facilities increases.
- Consolidate operations as site infrastructure is reduced.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain operations performed in 722-A Electronic shops, and 735-2B RME shop in support of site and off site work.
- Further consolidate operations as site infrastructure is reduced.
- 722-A Electronic shop work expected to decline ~24% during the period to FY21 due to reductions in site infrastructure and consequently operating systems.
- PCM work expected to decline ~60% during the period to FY21 due to reductions in site infrastructure and consequently operating systems.
- RME shop work load to decline about 28% during the period to FY21 due to reductions in site infrastructure and consequently operating systems.

**Assumptions:**

- Operation of the 722-A Electronic shops and the 735-2B RME shops will be required based on continuing site mission.
- Funding will remain tight.
- Reductions in service will be driven by D&D activities and new mission with an overall decline in services over both periods.
- Equipment in good condition.
- Equipment is aging making repair parts availability difficult.

**Risks:**

- Reductions in site population may affect maintenance skill mix in the electronics shops.
- Funding shortfalls may affect service deliveries.
- Aging equipment may not be repairable forcing unplanned expenditures for replacements.

**Calibration Lab Electrical & Instrumentation Maintenance**

**State as of 11/30/06:**

- 722-A Calibration Lab calibrates, troubleshoots and repairs Measuring & Test Equipment (M&TE), including Weapons Program M&TE, Installed Process Instrumentation (IPI), certain radiation monitoring equipment (RME), and provides commercial-grade-dedications (CGD) / receipt inspection and testing services of safety related electrical and electronic components.
- The Savannah River Standards Laboratory (SRSL) at 736-A provide calibration services for the highest accuracy and more exotic measurement standards.
- Calibration measurement disciplines include AC and DC voltage and current, resistance, frequency, tachometry, pressure, temperature, acceleration, radiation, humidity, flow, torque, and maintenance and calibration responsibilities for 220 Canberra Alpha Continuous Air Monitors (CAMs).
- 5,000 items per year are inspected/repaired/calibrated comprising ~7K man hours with a back log of ~350 man hours.
- Staffing is 5 FTEs and a cost of ~\$770K.
- Lab equipment condition is rated as good to excellent.

**Work Scope 12/1/06 thru 9/30/11:**

- Perform calibration work to standard in support of site mission.
- Workload is projected to reduce about 13% during the period due to infrastructure reductions.
- Consider consolidation of 772-A and 736-A functions as cost saving measure.

**Work Scope 10/1/11 thru 9/30/16:**

- Perform calibration work to standard in support of site mission.
- Workload is projected to reduce about 23% during the period due to infrastructure reductions

**Assumptions:**

- Calibration functions will be required for site operating facilities.
- No major equipment upgrades are required.
- Current calibration schedules will remain in effect.
- Funding will remain tight requiring innovative methods for accomplishing work.
- Proper skill mix will remain within the organization.

**Risks:**

- Workforce downsizing will create skill mix issues.
- Unplanned equipment replacements will cause funding pressures.
- New facilities may cause scheduling problems and a greater turn around time for services.

**Rigging and Cranes**

**State as of 11/30/06:**

- Rigging and Cranes group provides inspections of all overhead cranes and hoists as mandated by OSHA and ASME, Commodity Management Center (CMC) for all hoisting and rigging equipment procured for the site, and field rigging and crane support.

- Commodity Management Center procures and specifies new rigging and hoisting materials, assures quality receipt inspection, and monitors the use and utilization for all hoisting, lifting, or rigging devices used on site. Each item received is inspected, tagged, and documented as required prior to release to end users.
- The Field Rigging and Crane group performs rigging and hoisting service to the A, B, C, D, G, K, L, M, P, R, and T Areas, Tritium, and SRNL operations and maintenance organizations. Mobile crane operators provide crane service for all areas on site.
- Staffing is 41 FTEs, and a cost of ~\$7.4M.
- Over 1,200 PM's and over 3000 crane tasks are performed annually on 406 cranes and hoists having weight capacities ranging from ¼ ton to 200 tons, with work performed in both radiological and non-radiological areas.

**Work Scope 12/1/06 thru 9/30/11:**

- Perform rigging and crane services in support of site mission in accordance with OSHA and ASME standards, and industry best practices.
- An increase in services requested of ~5% during this period based on increased crane requirements for D&D.
- Consolidate functions to enhance efficiencies.
- Crane and rigging tasks will number ~ 3500 per year, and inspections ~500/ year during the period.
- FTE reduction ~10% during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Perform rigging and crane services in support of site mission in accordance with OSHA and ASME standards, and industry best practices.
- A decrease in services of ~20% due to facility and mission reductions.
- Consolidate functions to enhance efficiencies.
- Crane and rigging tasks will number ~ 3000/year, and inspections ~500 per year during the period.
- FTE reduction ~10% during the period.

**Assumptions:**

- Crane and rigging activities will be required through the contract period.
- D&D activities will accelerate creating additional demand for services during the first period with a decline in need during the second period.
- Consolidations and other cost control measures will be pursued due to funding issues.
- Work performance requirements will remain at current standard.

**Risks:**

- D&D and new site work will accelerate placing additional demands on crane and rigging group.
- Work standards will be enhanced requiring additional unplanned and unfunded inspections and related work.

**Relief Valve Maintenance Support**

**State as of 11/30/06:**

- 711-A Valve Shop provides pressure relief device maintenance support and performs hydrostatic pressure testing to maintain safety of equipment protected by pressure relief devices.
- The shop is certified by the National Board of Boiler and Pressure Vessel Inspectors.
- ~1,300 orders per year are processed through the valve shop to provide maintenance, repair, inspection and testing of the site's Relief Valves, Tank Vents, Vacuum Breakers, and Regulators and hydro-static testing of systems, components, hoses and equipment including SCBA cylinders. The cylinder hydrotest facility is certified and registered through the Department of Transportation.
- Staffing is 3.5 FTEs and a cost of ~\$550K.
- Man hour demand is ~3200 per year, with a backlog of ~450 hours.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain capability to perform required relief valve and related work in support of site mission.
- Workload will decrease ~6% as facility D&D progresses.

**Work Scope 11/1/11 thru 9/30/16:**

- Maintain capability to perform required relief valve and related work in support of site mission.
- Workload will decrease ~28% during the period through FY21 as facility D&D progresses.

**Assumptions:**

- Relief valve and related equipment testing will be required based on site mission.
- No equipment upgrades required.
- PM schedule will continue at present frequency.
- Funding will continue to be tight requiring innovative approaches to work performance.

**Risks:**

- Unplanned equipment failures require replacements.
- Funding insufficient to maintain established PM schedule, equipment replacements causing non-compliance issues.

**HEPA Test Support**

**State as of 11/30/06:**

- HEPA Filter Test Support performs 100% of the fixed and portable HEPA Filter/Sand Filter tests on site in accordance with Engineering Standard 15888.
- Performs an average of ~3000 filter tests per year.
- Staffing is ~5 FTEs and a cost of ~\$520K.
- Man hours of work per year is ~7600, with ~7 week backlog.

**Work Scope 12/1/06 thru 9/30/11:**

- Perform HEPA filter testing and corrective maintenance in support of site missions.
- Workload decrease of 2% during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Perform HEPA filter testing and corrective maintenance in support of site missions.
- Workload decrease of 22% during the period through FY21 as site D&D and mission configuration changes.

**Assumptions:**

- Filter testing function will be required for both periods.
- Funding will remain tight requiring innovative approaches to work performance.

**Risks:**

- Funding will be reduced placing increasing pressure on maintaining testing schedule and support of site missions.

**National Emissions Standards for Hazardous Air Pollutants (NESHAP) Support**

**State as of 11/30/06:**

- Provides services site wide to perform face/capture velocity test on laboratory hoods/enclosures and local exhaust systems used in controlling the emissions of radiological particulates, non-radiological particulates, gases, vapors, mist and fumes in the breathing zone of employees.
- Performs NESHAP test/video inspections on process air stacks and ducts per Environmental Protection Agency's Code of Federal Regulation.
- Performs 1,098 hood/local exhaust certification tests and 47 airflow measurement tests per year. In addition, this group performs 47 internal/external video inspections on Isokinetic sampling.
- Inspections required as facilities are taken out of service.
- Staffing is 2.5 FTE and a cost of ~\$200K.
- ~1000 man hours per year in testing with a 2 week backlog.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide required NESHAP testing and support in support of site mission.
- Decrease of ~3% in workload during the period.
- Possible consolidate with HEPA filter testing group to enhance efficiencies.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide required NESHAP testing and support in support of site mission.
- Decrease of ~14% in workload during the period through FY21.

**Assumptions:**

- Programmatic function required based on EPA requirements and ongoing D&D work.
- Funding will remain tight requiring innovative solutions to work performance.
- Equipment will not require replacement during both periods.

**Risks:**

- Changes in regulatory requirements will require unplanned expenditures and lack of timely mission support.

**Nuclear Incident Monitor (NIM) Shop Maintenance Support****State as of 11/30/06:**

- 722-A NIM Shop provides the repair/calibration and upgrades to site NIMs and the repair/calibration and fabrication of 485 NIMS (Nuclear Incident Monitors) and six hundred and sixty three (663) NIM Bells in support of the site's Nuclear Criticality program.
- Maintenance on a typical NIM averages about 14 hours per instrument and 2 hours per NIM Bell.
- 722-A NIM Engineering Group approves standard procedures for operating, calibrating, and maintaining NIMs, maintains configuration control of NIM location analysis by maintaining information from facility requests, placement calculations by Criticality & Radiation Transport Services, and reviews by area and site Criticality Safety Review Committees.
- Site NIMs are generally in good condition due to active preventive and corrective maintenance programs and are specifically designed for site use.
- Staffing of 2.5 FTEs and a cost of ~\$450K.
- ~135 NIMs and ~20 NIM Bells processed per year, accounting for ~1,930 man hours, with a backlog of ~800 hours.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide NIM and NIM bell maintenance capability through the period in support of site mission.
- Consolidate the 722-A NIM Shop activities with the 735-2B RME Shop to increase efficiencies.
- Decline in workload of ~ 21% as D&D of nuclear facilities decreases.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide NIM and NIM bell maintenance capability through the period in support of site mission.
- Decline in workload of ~ 50% as D&D of nuclear facilities decreases during the period.

**Assumptions:**

- NIM support required through both periods as nuclear operations continue, though in decline.
- Significant declines over both periods approaching 75% as nuclear facilities are decommissioned and deactivated.
- Funding pressures will require consolidation/innovative approaches to maintain capabilities and PM/CM schedules.
- Capabilities will be sufficient to support new missions.

**Risks:**

- Funding issues are not resolved causing shortfalls in support and work completion.

## **Systems and Technical Support**

### **State as of 11/30/06:**

- Work Management Section
  1. Provide a single point of contact to manage Solid Waste Infrastructure Maintenance and Transportation work schedules for over 2500 weekly tasks.
  2. Ensures the development of a resource loaded integrated work schedule that controls schedule priorities, and eliminates schedule implementation obstructions.
  3. Work directly with all business units' departments to provide coordination of schedules for SWIM&T.
  4. Identifies PassPort data needed to support department access databases such as ATLAS. Provides E3S Security Maintenance assistance/information related to PassPort.
  5. Currently servicing over 300 facilities and related programs.
  6. Staffing is 15 FTEs and a cost of ~\$1.5M.
- Field Maintenance Support Section
  1. Directs the planning and scheduling of department's approximately 750 activities and 450 work packages each month in support of site-wide maintenance of fire protection systems, emergency diesel generators, testing of HEPA filter and NESHAP systems, motor and valve shop repairs and overhauls, electrical and calibration shop, mechanical fabrication shop, machine shop, hoist / crane inspections and Transportation services.
  2. Provide spare parts management for ~11,000 parts that support the maintenance work groups / shops.
  3. Staffing is 19 FTEs and a total cost of ~\$2M.

### **Work Scope 12/1/06 thru 9/30/11:**

- Provide work management and field maintenance support services through the period in support of site missions.
- Demand for the above scopes at SRS is projected to decrease by 26% (9 FTEs) by 2007 and remaining relatively stable through 2011.
- Addition of transportation support (Central Trucking and Waste Hauling) scheduling for the D&D effort.
- Upgrades to function specific hardware and software required during the period to maintain currency.

### **Work Scope 10/1/11 thru 9/30/16:**

- Provide work management and field maintenance support services through the period in support of site missions.
- Demand for the above scopes at SRS is projected to decrease by 55% in 2014 (14 FTEs) leaving an estimated 12 FTEs to perform remaining work.

- Upgrades to function specific hardware and software required during the period to maintain currency.

**Assumptions:**

- A site work management and field maintenance support function will be required to coordinate site work activities through the period.
- Steady decline in request for service will result in a 75-80% reduction in need by the end of FY16 based on D&D and reduced site mission.
- Funding will remain tight requiring innovative approaches to work performance.
- Hardware and software upgrades will be required during each period to maintain system capabilities.

**Risks:**

- Funding issues may prevent required computer system upgrades resulting in difficulty performing work management and field maintenance support functions.
- Additional site personnel reductions may cause staffing and skill mix issues in the functions.

**Engineering Support**

**State as of 11/30/06:**

- Engineers provide interpretation and clarification of maintenance specifications, regulations and technical requirements for approximately 30 separate business or service units within Infrastructure Maintenance including:
- Group is responsible for multi-disciplined tasks as described below:
  1. Electrical:
    - Analyze systems and components for Preventive Maintenance requirements.
    - Technical Support for Site Elevator Maintenance Program
    - Building Maintenance Electrical Engineering Support
    - Technical Support for Site Motor Maintenance
    - Technical Support for Site Breaker Maintenance
    - Site Breaker Committee Technical Coordinator
    - Electrical Engineer CTF
    - Nuclear Incident Monitor (NIM) Design Authority and Engineering Support
    - Engineering Support for SWIM&T Instrument Calibration
    - Technical Support for Site Diesel Generator Maintenance Program
    - Technical Support for PECMC Maintenance Program
    - Communication System Technical Support
    - Relay Station and Frequency Management
    - Engineering Design Authority
  2. Mechanical:
    - Building Maintenance Mechanical Engineering Support
    - Predictive Maintenance and Vibration Analysis
    - Technical Support for Site Diesel Generator Maintenance Program
    - Technical Support for PECMC Maintenance Program

- Technical Support for the SRS Hoisting and Rigging Program
  - Pressure Equipment Protection Engineering
3. General Engineering: provides technical quality review of new replacement parts and spare parts utilized on Safety Class and Safety Significant Diesel Generators, Fire Protection Systems and other SSCs as required by Procedure 3.46 of the E7 manual.
4. Civil:
- Transportation Support
  - Dam Maintenance
  - Road Maintenance
  - Bridge Maintenance
  - Grounds Maintenance
- Staffing is 13 FTEs and a cost of ~\$2M, with ~18K man hours/year of service.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide engineering support to the line programs in support of site mission.
- Workload decrease of ~25% during the period due to facility D&D and mission changes.
- Tailor staff to meet mission needs.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide engineering support to the line programs in support of site mission.
- Workload decrease of ~50% during the period due to facility D&D and mission changes.
- End of period workload ~7500 man hours/year.
- Tailor staff to meet mission needs.

**Assumptions:**

- Engineering support to the maintenance/support organizations will continue.
- Continued restricted funding requiring innovative solutions to providing required service.
- All engineering disciplines will be required during the first period.

**Risks:**

- Workforce reductions create skill mix problems.
- Reduced funding will affect ability to provide engineering support to maintenance/service organizations causing safety/maintainability issues.

## **SUPPORT SERVICE FUNCTIONS**

### **Occupational Medicine**

#### **State as of 11/30/06:**

- Administers a comprehensive occupational medicine program and provides medical treatment for on-the-job illness and injury and emergency care to over 10,000 employees.
- Occupations include physicians, psychologists, nurses, administrative professionals, health information services, disability case management, safety eyewear, x-ray services, medical laboratory services, and substance abuse counselors.
- Services include qualification and certification examinations for fitness for duty determinations, including participants in the Human Reliability Program (HRP), as well as for non-reactor nuclear facility operators, Department of Transportation (DOT)-certified drivers and operators, helicopter pilots, security inspectors, and firefighters.
- Medical surveillance is provided to employees who work with or near lasers, asbestos, hazardous materials, lead, and beryllium.
- Administers hearing conservation and respiratory surveillance programs.
- Responsible for maintaining medical records for all past, present, and future site workers, currently about 55,000 medical records.
- Medical facilities located in N Area and H Area. A psychological evaluation and testing facility serving primarily HRP participants is located in B Area.
- Demand is driven by the number of examinations made to Medical Surveillance Program enrollees, treatment of occupational and non-occupational illness or injury, and the number of Return to Work evaluations that may be required.
- Medical surveillance programs are required by law and health evaluations or examinations are based on the hazards that may be present in the workplace.
- Staffing is 56 FTEs, with a budget of ~\$4.5M.
- Facilities condition is considered good.

#### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain site medical capability to support site mission in accordance with applicable regulations and requirements.
- Consolidate facilities and activities as appropriate based on a declining site population and changing mission.
- Identify and implement innovative methods for providing required services.

#### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain site medical capability to support site mission in accordance with applicable regulations and requirements.
- Consolidate facilities and activities as appropriate based on a declining site population (~25% reduction from base) and changing mission.
- Identify and implement innovative methods for providing required services.

**Assumptions:**

- Site medical facilities will be required during both contract periods.
- Medical surveillance programs will continue in response to requirements of law.
- Activity and facility consolidations will occur as site D&D continues.
- Available funding will be limited requiring innovative solutions to providing required services.

**Risks:**

- Changes in requirements will mandate unfunded upgrades to services/equipment impacting mission support.

**Document and Information Services****State as of 11/30/06:**

- Provides the central publication and information management support activities for the site.
- Publications provides scientific and technical illustrations, process animation, aerial photography, hot-area photography, before and after documentation (video and photography), video programs, training materials, technical and financial documents, technology transfer promotions and site proposals.
  1. Services include cost/needs planning with organizations, access to existing materials and requirement awareness for copyrights and external release of information. This group coordinates all vended publication activities for the site (e.g., the coordination of printing done through commercial vendors and the Government Printing Office).
  2. Maintains a manned copying center, a video suite (capable of video production and duplication), poster production, and photography production and development.
- Records Administration is responsible for establishing the Site requirements for submission, managing, and proper final dispositioning of ~40K cubic feet of classified and unclassified records, and meeting the operational (business) and legal records needs of the site.
  1. Provides the administration of active and archived records collections, including training records, personnel records, classified records, and the archived collections managed on site and in the Federal Records Center (FRC) in Atlanta and in the Veterans' Administration Facility (Neosho, MO).
  2. Responsible for making records available on-line and in other digital formats (e.g., as CD-ROMs for support of EEOICPA activity), and for destruction of classified and unclassified records.
  3. Housed in 6 buildings: a records storage building that satisfies NQA-1 requirements, interim storage buildings, several vaults for classified storage, a vault in 766-H that provides restricted access to training records, and a disintegrator building.
- Engineering and Operations Document Control (EODC) is responsible for ensuring that planning, engineering, and operations activities are conducted using authorized, current versions of documents and procedures.

1. Includes drawings, specifications, calculations, work packages, procedures, design change documents, and immediate procedure changes.
  2. Function administers more than 300,000 drawings, 250,000 vendor documents, and 300,000 engineering documents.
  3. Housed in 4 operations facilities which are controlled and funded by those operations.
- Management Information Programs includes:
    1. The scientific and technical information program (STI) that ensures the identification, processing and appropriate review and approval of site generated information and documents that require capture in the DOE's Office of Scientific and Technical Information program and provides appropriate screening of material prior to public release.
    2. Site forms management and administration of WSRC's collection of company-level procedures.
  - Staffing includes 186 FTEs, with a cost of ~\$16M.
  - Facilities are in good condition.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide document and information services support in support of site mission.
- Minimal reductions in staffing (~10%) are anticipated as additional work in records will offset declines in publications, and deactivating business units may hand off related tasks to the central group.
- Consolidation of facilities and functions and innovative methods for meeting mission requirements as site reconfiguration continues.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide document and information services support in support of site mission.
- Minimal reductions in staffing are anticipated as additional work in Records will offset some decline in Publications, and deactivating business units will hand off related tasks to the central group.
- Consolidation of facilities and functions and innovative methods for meeting mission requirements as site reconfiguration continues.

**Assumptions:**

- Document and information services will continue to be required in support of site mission through both periods.
- Available funding will be limited requiring innovative solutions to providing required services.
- Staffing levels will decline slowly over both periods based on site requirements.
- No major upgrades or replacements of equipment will be required.

**Risks:**

- Unanticipated, unfunded equipment replacements will be required impacting mission accomplishment.
- D&D of current D&IS occupied buildings will require relocation to facilities requiring significant unfunded upgrades.

## Excess and Salvage Operations

### **State as of 11/30/06:**

- Provides for the disposition of government assets excess to mission needs and protection of those assets prior to disposition.
- Excess and Salvage Operations utilize nine facilities (approximately 90,000 square feet), four fenced and secured laydown yards (approximately 20 acres), two Bicron drive-through radiation-monitoring devices and two drive-across scales.

<u>Building Number</u>	<u>Type Facility</u>	<u>Sq. Footage</u>
741-N	Salvage Operations Admin	1,024 square feet
741-2N	Used Drum and Battery	6,205 square feet
741-5N	Tire Storage Canopy	3,500 square feet
745-4A	Excess Sales Building	2,480 square feet
745-3A	Outside Equip Building	900 square feet
731-4N	Excess Warehouse (partial)	20,000 square feet
713-N	Excess Warehouse (partial)	20,000 square feet

<u>Laydown Areas</u>	<u>Type</u>	<u>Area size</u>
741-N	Salvage Operations	4 acres
763-52N	Excess Laydown	10 acres
745-A	A-Area Excess	5 acres
713-A	Excess Furniture Laydown	1 acre

<u>Bicron Monitors</u>	<u>Type Facility</u>
741-N	Salvage Operations
731-4N	Excess Operations

<u>Scales and Scale Houses</u>	<u>Type Facility</u>
713-N	Excess Operations (partial)
A-Area	Site Operations

- Operation has no excess capacity to meet other site needs.
- D&D operations are increasing program work load.
- Staffing is 7 FTEs at a cost of ~\$750K.
- Condition of buildings is average, with no major repairs assuming routine maintenance.

### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain excess and salvage operations in support of site mission.
- Workload will increase ~30% during the period as D&D continues.
- Additional warehousing and laydown yard space required to manage excess/salvage inflow.

### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain excess and salvage operations in support of site mission.
- Workload stabilizes as D&D work slows.
- Consolidation of storage facilities and yard space.
- Replace building 713-N, 741-N HVAC equipment.

**Assumptions:**

- Excess/salvage operations will be required to support site mission.
- Excess/salvage materials will increase as D&D accelerates during the first period.
- Additional facilities and staffing may be required to handle increased load.
- Current warehouse buildings will not require major repairs during both periods.
- Funding will remain tight.

**Risks:**

- D&D work outstrips excess/salvage operations capabilities creating storage and asset protection problems with a commensurate reduction in asset value.

**Storage for Others Operations**

**State as of 11/30/06:**

- Program operates a right-sized group of facilities to provide support to site projects, programs and operating groups for the storage of required materials for multi-million dollar projects with expensive and sensitive equipment requiring long lead times for procurement and other missions.
- Perform annual reviews with end-use customers to confirm the continued storage of the items and maximize utilization of site storage areas while minimizing the costs associated with operations and maintenance.
- Buildings and laydown areas for this program are as follows:

<u>Building Number</u>	<u>Type Facility</u>	<u>Sq. Footage</u>
714-6N	Extra Machinery & Spares	16,185
713-N	B Warehouse	30,000
713-1N	A Warehouse	37,330
713-2N	Double Bay Warehouse	30,337
713-3N	Warehouse for S-Area	15,000
714-N	Storage Building	11,959
717-N	Structural Iron Shop	14,157
717-10N	Warehouse & Insulation	6,000
225-6H	H Area MAC	8,000
714-A	A Area MAC	46,029
717-12F	F Area MAC (Outside)	19,903
221-33F	F Area MAC (Inside)	4,800
<u>Laydown Areas</u>	<u>Type</u>	<u>Area</u>
Y1	Project and Inventory	8 acres
Y4	Project and equipment	2 acres

- Warehouses are in average condition.
- Staffing is 14 FTEs and budget of ~\$1.2M (\$400K labor, rest material and craft labor).
- Current fill is 90%+ of capacity.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain a right sized storage for others capability in support of site projects and mission.
- Consolidate storage locations as required.
- Expect increased demand for services as D&D progresses and new site projects emerge.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain a right sized storage for others capability in support of site projects and mission.
- Consolidate storage locations as required.
- Roof replacements for 713-2,3N, 714-N, 225-6H.
- HVAC replacement for 713-2,3N, 717-10N, 225-6H, 714-A.

**Assumptions:**

- Storage requirements for project and mission equipment will continue through both periods.
- Capacity of fill percentage will remain very high.
- Staffing remains constant based on requirements.
- Funding remains tight.
- Building repairs must be accomplished in stated time frames for equipment protection.

**Risks:**

- D&D actions reduce storage capacity.
- Unplanned projects/mission needs exceed capacity requiring identification of other storage locations/methods.
- Funding not available for building repairs/upgrades placing materiel at risk.

**Central Stores and Spares Warehousing**

**State as of 11/30/06:**

- Warehousing facilities receive all materials, equipment and storage required to support operations.
- Storage includes assurance to quality requirements, proper regulatory accountability and necessary in-storage preventative maintenance.
- The following facilities constitute the central receiving, delivery, and storage complex:

<u>Building Number</u>	<u>Type Facility</u>	<u>Sq. Footage</u>
731-N	Asset Support	14,800
731-1N	Material Receiving & Storage	50,000
731-2N	Bulk Storage warehouse	45,904
731-3N	Spare Parts warehouse	46,503
731-4N	General Stores warehouse	46,000
Two (2) fenced and gated laydown yards		2 acres each

- Functions performed include receipt of all materials, site delivery of all materials, warehousing and distribution of materials, operation of the laydown yard, marking and tagging of government property, receipt and processing of site excess materials, and intra-site transfers of material.
- ~34,000 material line items are stored within 731-2N and 731-3N which meet the requirements of temperature controlled storage.
- ~\$110M of the annual site budget is spent on materials, including precious metals, safety class and safety significant material, radioactive material, commercial materials and equipment which is processed through central receiving and delivery located within 731-1N.
- 731-2N contains ~7000 square feet of environmentally controlled storage.
- ~25,000 square feet of 731-4N contains maintenance materials and ~20,000 square feet is dedicated to site Excess Operations.
- Available space is considered adequate and in good condition.
- Staffing is 50 FTEs and a cost of ~\$3.7M.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide central receiving, distribution, storage activities in support of site mission in compliance with applicable DOE requirements.
- Consolidation of material to central warehousing from other site facilities undergoing D&D.
- Order processing to remain constant, though volume per order decreasing.
- Replace HVAC in 731-N.
- Replace selected materials handling equipment during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide central receiving, distribution, storage activities in support of site mission in compliance with applicable DOE requirements.
- Consolidation of material to central warehousing from other site facilities undergoing D&D.
- Order processing to remain constant, though volume per order decreasing.

**Assumptions:**

- Facility capacities considered adequate for both periods.
- Function will be required in both periods.
- Consolidation of storage to central site will continue as D&D progresses.
- Available funding will remain tight requiring innovative solutions to mission performance.
- No major facility upgrades required during first period.

**Risks:**

- Funding shortfalls will not enable needed facility and equipment upgrades replacements impairing capabilities.

## Chemical Management

### **State as of 11/30/06:**

- Manages the receipt and delivery of incoming chemicals, the warehousing of existing chemical inventories, and the receipt and disbursement of site excess chemicals in accordance with DOE, EPA, and SCDHEC regulations.
- Requires specialty facilities designed to properly store flammable material, liquid and solid chemicals and compressed gases.
- ~500 material line items are stored and disbursed from the facilities.
- Chemical waste minimization, chemical reutilization, and chemical inventory reduction are major focus areas.
- Existing facilities will provide adequate support through the next contract period and beyond. Facilities are shown below:

<u>Building Number</u>	<u>Type Facility</u>	<u>Sq. Footage</u>
731-5N	Flammable Storage	9,059
731-6N	Compressed Gas Storage	10,000
710-17N	Flammable Storage	6,808

- Staffing is 5 FTEs and cost of ~\$500K.
- 731-5,6N building condition good, with 710-17N requiring replacement by FY12.

### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain chemical management program in support of site mission in accordance with applicable requirements.
- Receipt of new chemicals to decline ~5%, but excess chemical processing will increase ~20% as D&D progresses and facilities are deactivated.

### **Work Scope 10/1/11 thru 9/30/16:**

- Maintain chemical management program in support of site mission in accordance with applicable requirements.
- New and excess chemical volumes will stabilize.
- Deactivate building 710-17N and consolidate in 735-5N.
- Replace HVAC in 735-5N.

### **Assumptions:**

- Chemical management activity will be required through both periods.
- Buildings 735-5,6N will not require major structural repairs.
- FTE requirement remains steady based on required actions.
- Consolidation of 710-17N activities to 735-5N during FY12.
- Funding remains tight.
- Excess chemical stocks will increase with D&D.

### **Risks:**

- Weather events cause significant facility damage requiring unbudgeted expenditures.
- Changes in chemical storage and handling requirements impact current operations and require unplanned expenditures.

## **Information Technology**

### **State as of 11/30/06:**

- Provides information systems, data management and communication services to SRS missions via the computing infrastructure, communications infrastructure, and enterprise maintenance and related systems.
- The Computing Infrastructure component of the IT baseline consists of centrally managed services in six categories:
  1. Centralized application processing and delivery (mainframe application hosting, UNIX application hosting, Intel applications hosting)
  2. Desktop computing services, including Help Desk.
  3. Electronic Mail (Lotus Notes) and collaboration Services
  4. Intranet/Internet services
  5. Data Warehouse
  6. Central Computing Facility
- Communications Infrastructure provides centrally managed voice, data, and video network services to the site including DOE-SR, WSI, UGARF, and USFS. This includes:
  1. Basic telephone service; voice mail; local and management of long distance calling services.
  2. SRSnet data network access and transport.
  3. Special circuits including fire protection, security, emergency operations, nuclear monitoring.
  4. Off-site network connectivity.
  5. Closed circuit video.
  6. Desktop multimedia delivery services.
- Management and support of contractor information systems (i.e. IBARS, CLS, PLS, FMTS, environment systems, Sentry, TRAIN, etc.) used in support of business operations and mission support functions.
- Support/enhancement of the LANMAS system (used complex-wide and funded by HQ).
- Staff of ~250 FTEs, cost ~\$40M.

### **Work Scope 12/1/06 thru 9/30/11:**

- Maintain and operate required IT computing and communications infrastructure in support of new and existing site missions.
- Reconfigure IT systems and support based on successor contractor needs, D&D progress, reduced site population, and new site missions.
- Relocation of central computing facility from A Area.
- Identify/implement cost reduction opportunities in all service areas.
- Periodic system upgrades/maintenance/replacements through FY10 based on technology obsolescence and continued manufacture support requirements.
- Enterprise system upgrades anticipated after FY06.

**Work Scope 10/1/11 thru 9/30/16:**

- Reconfigure IT systems and support based on successor contractor needs, D&D progress, reduced site population, and new site missions.
- Maintain and support required IT infrastructure in support of new and existing site missions.

**Assumptions:**

- IT infrastructure must be able to support current and site mission.
- IT reconfiguration due to site D&D activities, reduced site population, and evolving missions, will be ongoing.
- Changing IT technologies will put pressure on existing site IT infrastructure.
- Funding pressures will force creative IT solutions in out years.

**Risks:**

- Funding availability for out year upgrade/replacement projects.
- Significant technology shifts requiring upgrades/replacement projects earlier than planned.
- IT personnel skill mix issues as site population decreases, particularly in management of aging systems.

**Safeguards and Security****State as of 11/30/06:**

- Establishes and maintains an effective Foreign Ownership, Control, or Influence (FOCI) Program in accordance with DOE Orders and Manuals as it relates to the prime contractor and all flow downs that require access authorizations.
- Develops, implements and maintains an effective Export Control (EC) Program which complies with US Government export control regulations and ensures all materials and equipment receive an EC review before being released from Savannah River (SR) control or prior to being accessed by a foreign national (EN) and all non-public technical data receives an EC review prior to being released from SR control or prior to being transferred to a FN.
- Establishes and maintains an effective Classified and Sensitive Unclassified Information Protection Program in accordance with applicable DOE Orders and Manuals and an effective Classified Removable Electronic Media (CREM) Protection and Accountability Program as required by DOE Procedures.
- Establishes and maintains an effective Security Incident Program that reports all incidents, identifies root cause(s), and corrects these causes in a timely manner in accordance with DOE Orders and Manuals.
- Establishes and maintains an effective Operations Security (OPSEC) Program that meets the objectives of DOE Order 471 .2A and local guidance provided by DOE-SR OPSEC personnel.
- Establishes and maintains an effective Unclassified Visits and Assignment Program in accordance with DOE Order 142.3 and local guidance provided by DOE-SR Foreign Visits and Assignments personnel.
- Establishes and maintains an effective Classification Program in accordance with DOE Orders and Manuals and DOE-SR guidance.

- Establishes and maintains an effective Physical Protection Program in accordance with applicable DOE Orders and Manuals.
- Establishes and maintains an effective Self-Assessment Program in accordance with applicable DOE Orders and Manuals.
- Establishes and maintains an effective Material Control and Accountability Program in accordance with applicable DOE Orders and Manuals.
- Establishes and maintains an effective Personnel Security Program in accordance with applicable DOE Orders and Manuals.
- Operates the Site Badge Office and shall handle Visitor Control and process security clearances for the Savannah River Site in accordance with applicable DOE Orders and Manuals.
- Establishes and maintains an effective Human Reliability Program in accordance with 10 CFR 712, DOE Orders, Manuals and guidance provided by DOE-HQ and DOE-SR.
- Has initiated implementation of the 2004 Design Basis Threat Order (DOE Order 470.3).
- Staffing is ~200, with a budget of ~\$57M.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain programmatic competence and viability in the performance of the safeguards and security functions identified in the above current state.
- Complete implementation of the 2004 Design Basis Threat Order (DOE Order 470.3) by the end of FY08.

**Work Scope 9/30/11 thru 9/30/16:**

- Maintain programmatic competence and viability in the performance of the safeguards and security functions identified in the above current state.

**Assumptions:**

- All S&S programs will be performed on a level of effort basis through both contract periods based on site population and mission requirements.
- Funding will remain at current levels.
- The fire department and emergency services will be incorporated into the WSI contract.
- No new major initiatives will be enacted.

**Risks:**

- Unfunded major initiative will require implementation.
- Changes in DOE requirements requiring new program implementation.
- Programmatic demands will exceed available staffing impeding timely mission support.

**Mail Services**

**State as of 11/30/06:**

- Mail Services group handles all intra-site mail, inbound US Postal Service (USPS) mail, express mail, and accountable mail including classified mail, outbound USPS and express mail for all entities at SRS.

- Compliant with USPS requirements.
- Located in 731-1N facilitating the integration of Mail Service with Central Delivery eliminating duplicate delivery routes.
- 8 FTEs and a cost of ~ \$750K.
- Current mail volume is ~5.5 M pieces handled yearly to all active site locations, which includes ~192K metered for postage.
- Current mail management system includes metering equipment for outgoing mail and a data collection/reporting system which track costs and volumes broken down by mail categories.
- Mail management system put in place in FY03.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain mail services to site during the period based on demand.
- Mail volume expected to remain constant.
- Major system upgrades not anticipated during period.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain mail services to site during the period based on demand.
- Upgrade metering equipment and x-ray machine.

**Assumptions:**

- Mail volume will remain fairly constant until second period.
- No major system upgrades will be needed in the first period.
- Major upgrades will be required in the second period.
- USPS requirements will remain stable.

**Risks:**

- Unanticipated mail system failure.
- Significant USPS requirement changes necessitating mail services revamping.
- Lack of funding for system maintenance/upgrades.

**Regulatory Monitoring and Bioassay Laboratory (RMBL)**

**State as of 11/30/06:**

- Provides a consolidated laboratory and support capability for analytical services in the areas of environmental monitoring, industrial hygiene, dosimetry, and health physics located in 735-B complex (~75K sq. ft.)
- Environmental Monitoring Lab houses analytical operations supporting the environmental, radiological, and chemical protection programs, including the operation of a program for sampling and analyzing air, water, flora and fauna for radioactive and non-radioactive pollutants.
  1. Performs radiological analysis for effluent monitoring, environmental surveillance, and ground water samples.
  2. Performs chemical analyses of air, water, groundwater, soil, sediment, and fish samples.
- Bioassay Laboratory is used to analyze and document results of bioassay samples required for site personnel performs ~20K urine analyses/year, ~23K samples/year for tritium, and processes ~100K dosimeters/year.

- Related laboratories analyze occupational safety and industrial hygiene samples (~3K samples/year).
- Processes ~40K sample aliquots/year, including over 56K analytical determinations for a wide variety of radionuclides.
- Water quality group analyzes ~2,400 sample aliquots/year, including over 3,000 analytical determinations for parameters determining surface water quality such as turbidity, pH, conductivity, solids determination, mercury and anions.
- The geotechnical group contracts with commercial labs for ~6K samples /year, producing over 415K analytical determinations.
- Provides services in accordance with EPA and state regulations, DOE Orders and industry practices.
- Facility designed to accommodate service demand, and has flexibility to accommodate unanticipated work.
- Facility became operational in FY02 and has a 40 year service life.
- Lab equipment is supportable for an estimated 15 year service life.
- Staff is 39 FTEs and a cost of ~\$8M.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide analytical services in the areas of environmental monitoring, industrial hygiene, dosimetry, and health physics in support of site mission.
- Industrial hygiene support of D&D activities will increase during the period, reduction in external dosimetry as site population declines.
- Identify and implement cost saving methods in lab operations.
- Mission changes and site population reductions will affect mix of services offered.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide analytical services in the areas of environmental monitoring, industrial hygiene, dosimetry, and health physics in support of site mission.
- Identify and implement cost saving methods in lab operations.
- Mission changes and site population reductions will affect mix of services offered.

**Assumptions:**

- Laboratory analytical services will be required during both periods.
- Site mission and population changes will affect service mix.
- Available funding and cost of services provided will drive innovative methods for providing services.
- Excess laboratory capacity exists.

**Risks:**

- Skill mix issues occur as workforce downsizing continues affecting service.
- Potential outsourced services not responsive to site needs.

## **MAJOR INFRASTRUCTURE SUBCONTRACTS**

### **Elevator Maintenance**

#### **State as of 11/30/06:**

- 46 elevators that require PM and repair services, all of which are procured through a subcontract.
- Covers the guidelines, requirements, and terms for subcontractor services to perform routine and periodic inspections, preventive maintenance, corrective maintenance, and required testing of all (SRS) elevators and dumbwaiters. Does not authorize a complete overhaul of site equipment
- Contract ~\$440K (includes fixed price for preventive maintenance, and time and material for corrective maintenance).

#### **Work Scope 12/1/06 thru 9/30/11:**

- Perform elevator preventive and corrective maintenance activities through the period to support site mission.
- D&D activities will reduce elevator population to 36 during the period.

#### **Work Scope 10/1/11 thru 9/30/16:**

- Perform elevator preventive and corrective maintenance activities through the period to support site mission.
- Continued reduction in elevators due to D&D activities.

#### **Assumptions:**

- Elevator maintenance and repair will be required during both periods.
- Subcontract maintenance is currently the most cost effective manner to obtain elevator maintenance.
- Available funding will be available.

#### **Risks:**

- Insufficient funding to support required elevator maintenance.

### **Food Service**

#### **State as of 11/30/06:**

- Consists of manual food service operations in nine (9) site facilities (4 base, 5 rotational) and vending machine services provided by the South Carolina Commission for the Blind (SCCB) in compliance with the provisions of the Randolph Sheppard Act.
- Currently five local food service suppliers, each providing service to the site under a “strategic agreement” with the contractor.
- Food service vendors utilize specified equipment provided by the site that is responsible for equipment maintenance (~\$10K/yr).

- No direct subsidies provided to the food service vendors.
- SCCB employs four (4) blind vendors managing about 200 vending machines under individual permits with the Department of Energy.
- The Operations Recreation Association (ORA) manages about 200 vending machines, mostly in controlled areas of the site.
- Subcontract support is ~1 FTE at a cost of ~\$80K/yr.

### Projected Food Services Support

<b>Fiscal Year</b>	<b>Site Population</b>	<b>Permanent Food Courts</b>	<b>Rotational Food Courts</b>
FY05 to 07	~10K Plus	4	5
FY08 to 16	~9K to 8K	4	4
FY17 to 21	~7.6K to 3.7K	3	3
FY22 to 25	~3.5K to 2.8K	1	3

### Projected Food Service Areas

<b>FYs/Permanent Food Courts</b>	<b>Locations</b>	<b>Rotational Food Courts</b>	<b>Locations</b>
FY05-07 4	766-H, S-Area, H-Area, C-Area	5	730-B, 730-2B, SRNL, F-Area, Tritium
FY08-16 4	766-H, S-Area, H-Area, C-Area	4	730-B, 730-2B, SRNL, Tritium
FY17-21 3	766-H, S-Area, C-Area	3	730-2B, SRNL, Tritium
FY22-25 1	766-H	3	730-2B, SRNL, Tritium

#### Work Scope 12/1/06 thru 9/30/11:

- Continue agreements in support of food court operation and vending.
- Consolidate operations as site population declines.

#### Work Scope 10/1/11 thru 9/30/16:

- Continue agreements in support of food court operation and vending.
- Consolidate operations as site population declines.

#### Assumptions:

- Food service and vending capability will be provided to the site.
- Funding for the operations will be sufficient to continue repair of required food service equipment.
- Operations will continue to be at essentially no cost to the site.
- Number of food courts to remain static during the period.

- Vending sites to decline as D&D progresses.

**Risks:**

- Discontinued operations will adversely affect employee morale.

**Laundry Services:**

**State as of 11/30/06:**

- Provides clean protective clothing and respirator components to meet the site's needs. The program includes pickup, washing, and monitoring of radiological coveralls, lab-coats, shoe covers, coveralls, gloves, hoods, tarps, respirator masks and cartridges, and other launderables from multiple pickup points, and delivery of these items back to the designated onsite delivery points.
- Services subcontracted to Unitech Laundry Services, and all garments and respirator components are processed at the vendor's facility located adjacent to the site in Barnwell County.
- Subcontractor also provides Flame Retardant (FR) radiological coverall services to WSRC under a separate lease arrangement.
- The site purchases the radiological laundry garments, with the Subcontractor providing the sorting, cleaning, and monitoring and delivery processes.
- Rejected garments not meeting the clean limit requirements for re-use are properly bagged, tagged, and delivered to the contractor for disposal at site solid waste facilities.
- The laundry subcontractor currently processes an average of 100,000lbs. per month and 800 respirators per month. There are a total of 70 Rad/clean coverall laundry drop points on site.
- Routine coveralls (non-radiological coveralls) are provided to personnel on an as needed basis as determined by their management. These coveralls are purchased by the contractor (~\$50K/yr) and issued directly to the employee for use and laundry care. Employee receives a maximum of 5 the first year, and 3 each succeeding year.
- One subcontract technical rep at a cost of ~\$80K/yr, with subcontract costs of ~\$2.5M.

**Summation of Services Provided**

Cost Element	Provider	Service	Scope	Staff	Customer	Cost Direct	Frequency	Driver
027 Subcontract	Unitech	Rad Laundry	Laundry Pick up Deliver	1 FTE	80	Yes	Daily	5Q, 3Q
027 Subcontract	Unitech	Rad FR	Lease Orange FR		1000	Yes	Weekly	NFPA 70E
027	National	Coverall	Purchase	0.75	27	Yes	N/A	5B, 8Q

Subcontract	Textile	I	Only	FTE				
027 Subcontract	Aramark	Non-Rad FR	Lease Blue FR		24	Yes	Weekly	NFPA 70E

Note: 1 FTE manages Rad Laundry and Lease Rad flame retardant (FR) subcontracts and 0.75 FTE manages Lease Coverall and Lease Blue FR subcontracts

**Work Scope 12/1/06 thru 9/30/11:**

- Provide laundry and related services during the period to support site mission.
- Demand determined by remaining mission radiological and D&D work.
- Respirator requirements may increase with D&D asbestos abatement work.
- Non-radiological clothing will decrease with site population.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide laundry and related services during the period to support site mission.
- Demand determined by remaining mission radiological and D&D work.
- Respirator requirements will decrease as D&D asbestos abatement work declines.
- Non-radiological clothing will decrease with site population.

**Assumptions:**

- Laundry services will be required through both periods.
- Radiological and respirator demand will be constant.
- Non-rad clothing requirements will decrease with site population.
- Subcontracted services are most cost efficient.

**Risks:**

- Subcontract funding shortfall.

**Roof Replacement**

**State as of 11/30/06:**

- Operated by a single organization, with work subcontracted, responsible for the design, maintenance, and condition of all roofs, including those on production facilities.
- Over 1,000 buildings, containing more than 2,500 roof sections, are maintained.
- Estimated 25% require roof system repairs up to and including a total roof system replacement.
- 145 roofs are in very poor condition.
- 63 are identified in the 10-year replacement plan running through 2013.
- Patching is currently used in lieu of replacement based on funding availability.
- Approximately 36 failed roofs of which 18 are on radiological process facilities.
- Many roofs date from original site construction and contain environmentally sensitive materials.
- Current subcontract costs of ~\$3M per year.

**Work Scope 12/1/06 thru 9/30/11:**

- Maintain roof systems with available funding.
- Perform roof replacements based on risk and mission priorities.

**Work Scope 10/1/11 thru 9/30/16:**

- Maintain roof systems with available funding.
- Perform roof replacements based on risk and mission priorities.

**Assumptions:**

- Funding will remain below full programmatic needs.
- Repairs will be performed based on most critical need.
- Patching repairs will predominate.

**Risks:**

- Radiological hazards will increase due to roof failures in process areas and increase repair costs.
- Remaining site buildings will require additional maintenance and environmental remediation due to poorly maintained roof systems.
- Total roof failures due to extreme weather may jeopardize site mission and create environmental problems.

**Termite and Pest Control**

**State as of 11/30/06:**

- Subcontract for termite and pest control services provides all labor, materials, transportation, chemicals, insecticides, bait, and equipment necessary to provide full and complete chemical and mechanical termite and pest control services for 92 buildings on site.
- Work includes annual termite inspection services and continued termite warranty coverage of facilities.
- Termite and pest control services on an “as needed” basis.
- Subcontract cost is ~\$150K/year, with STR staffing of ~0.5 FTE at ~\$50K/year.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide termite and pest control services during the period.
- Service coverage will be reduced by ~10% during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide termite and pest control services during the period.
- Service coverage will be reduced by ~10% during the period.

**Assumptions:**

- Service will be required during the period for identified facilities.
- Subcontracting the function is the most cost effective.

**Risks:**

- Funding availability.

**Grounds Maintenance****State as of 11/30/06:**

- Provides site-wide services in the areas of lawn cutting, field mowing, sidewalk edging, vegetation control and trimming services through out the site, comprising approximately 1000 acres, inclusive of roadways.
- Lawn managed areas are on a “cut as needed” basis, and regular scheduled areas that are maintained at various height levels based on established criteria.
- Critical areas consist of 735-B, the B Area Health Protection Calibration Facility, F Area Control Laboratory, Medical Facilities, STTA Range, ATTA Range, and SRNL and high visibility areas consisting of the Badge Office, 705-A, 730-B, 730-1B, 730-2B, 730-4B, 703-H, 704-S, H Area training facilities and the Tritium Facilities. All remaining areas to include fields, roadways, road shoulders, are mowed, trimmed or bush hogged as requested.
- Subcontract costs are ~\$1M/year.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide grounds maintenance service in the areas of lawn cutting, field mowing, sidewalk edging, vegetation control and trimming services across the site.
- D&D activities will reduce lawn maintenance requirements during the period.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide grounds maintenance service in the areas of lawn cutting, field mowing, sidewalk edging, vegetation control and trimming services across the site.
- D&D activities will reduce lawn maintenance requirements during the period.

**Assumptions:**

- Grounds maintenance will be required during both periods.
- The grounds maintenance footprint will continue to be reduced during both periods affecting required services.
- Available funding may require innovative methods for providing services.

**Risks:**

- Lack of funding will impact service.

**Janitorial Services****State as of 11/30/06:**

- Subcontract provides daily cleaning and maintenance of restrooms, change rooms, cafeterias, lunchrooms and mini-kitchens.
- Provides services to ~600 facilities comprising ~3M square feet.

- Provides once-per-week office cleaning; daily restroom, change room, lunchroom and food court cleaning; vacuuming of common areas, and all floor services.
- Subcontract costs are ~\$5M/year, and STR staffing of ~1 FTE at a cost of ~\$100K.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide janitorial services to all applicable site locations to include once-per-week office cleaning; daily restroom, change room, lunchroom and food court cleaning; vacuuming of common areas, and all floor services.
- Areas of service will decline as D&D activities progress and site population declines.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide janitorial services to all applicable site locations to include once-per-week office cleaning; daily restroom, change room, lunchroom and food court cleaning; vacuuming of common areas, and all floor services.
- Areas of service will decline as D&D activities progress and site population declines.

**Assumptions:**

- Janitorial services will be provided during both periods.
- Site footprint reductions will reduce service areas during both periods.
- Available funding will be limited.

**Risks:**

- Inadequate funding to perform services.

**Moving and Field Services**

**State as of 11/30/06:**

- Subcontract provides services site wide for furniture and personnel relocation to all WSRC facilities occupied by full service and subcontractor employees.
- The responsible for the following tasks:
  1. Re-locate personnel and their work related items, including boxes, computer, printer, and other miscellaneous items.
  2. Disassemble, assemble, relocate, and set up office furniture, systems furniture, and small equipment and furnishings.
  3. Relocate site personnel and their belongings as required.
  4. Maintain and oversee warehouse operations consisting of a “working stock” of furniture resources for SRS needs.
  5. Maintain and oversee the site furniture management plan, including providing guidance on appropriate resources available to all personnel and management based on available space, resources, and level of authority.
  6. Provide support to Excess Operations in the processing and disposition of excess furniture resources.

- Subcontract costs are ~\$1M/year.

**Work Scope 12/1/06 thru 9/30/11:**

- Provide moving and field services to the site during both periods.
- Level of services will decline as a result of D&D activities and declining site population.

**Work Scope 10/1/11 thru 9/30/16:**

- Provide moving and field services to the site during both periods.
- Level of services will decline as a result of D&D activities and declining site population.

**Assumptions:**

- Moving and field services will be required during both periods.
- Available funding will be limited and require innovative solutions to providing services.

**Risks:**

- Adequate funding is not available to perform required services.

**OTHER G&A AND ESS FUNCTIONS**

Descriptions for all Other G&A and ESS Functions represent “State as of 11/30/06”. Out year work scopes for the period 12/1/06 through 9/30/11 and 10/1/11 through 9/30/16 are generically described in Appendix B, unless associated with a specific work scope described above.

G&A

Procurement

Manages the procurement process from acquisition to the customer receipt of materials and services that meets applicable DOE regulations and compliance requirements. Promotes participation by small, small disadvantaged, women owned, and local area businesses in the site procurement process, conducts the planning, solicitation, award and administration of all contracts and purchase orders issued on site Responsible for the independent review of the procurement services operations, development and administration of procurement policy and procedures, administration of training and safety activities, audit and self-assessment coordination, Subcontract Management Program; financial management, annual operational planning; procurement reporting, requisition control and data entry, operation and administration of the Procurement Credit Card Program; review of all procurement packages for the acquisition of engineered and commercial items, supplier quality audits, systems support, maintenance and storage of procurement-related files and documentation.

Quality Receipt Inspection Program

Performs receiving inspection functions for site procured material and components. Specific tasks include: (1) corrosion evaluation program, (2) quality receipt inspections, (3) safety subcontractor oversight, and (4) concrete batch plant quality inspections.

#### Administrative Programs and Services

##### - Program Integration & Baseline Management

- Provide corporate level management control systems (MCS) services, integrating planning, budgeting, execution and evaluation functions, to enable baseline management (annual, contract performance, and lifecycle), including baseline definition, authorization, and maintenance; Site Integrated Schedule; prioritization; baseline change control; performance incentive management; target setting, including Site Overhead; strategic and long-range comprehensive planning; corporate-level procedures, and performance metrics development and maintenance.
- Chair leadership of Program and Planning Integration Council
- Coordinate management of DOE information databases and submittals, including the Outyear Budget, EM-IPABS, FIMS, Deferred Maintenance reporting, Active Facility Environmental Liability, etc.
- Provide MCS services and program management for the organization and total G&A program component of site budget. Provide program integration for G&A, ESS and major service pools
- Develop site response and interactions in special projects and external audits and reviews.

##### - Contract Administration & Accountability

Oversees all administrative aspects related to:

- Adherence to all contract requirements
- Providing contract consultation, strategy assessments and interpretations to other departments and to senior management.
- Participating directly in audits and allowable cost reviews, responses to the DOE Contracting Officer, fee negotiations, and control of support to corporate affiliates and other onsite entities.
- Planning, expenditure control and negotiation of fee performance objectives and other possible contract changes.
- Negotiation and/or management of all agreements or other arrangements (including CRADAs, License's, WFO's and MPO's), whereby site personnel perform work for or utilize DOE resources on behalf of sponsors or programs other than DOE-SR and its mission.
- Negotiation/coordination of all technology transfer agreements.
- Administration and contracting oversight of primary subcontracts (and teaming agreements).
- Serving as the focal point for all contract related discussions with and approvals from DOE-SR Office of Contract Management.

##### - Re-engineering & Cost Effectiveness Programs

Directs and manages all company level cost savings and related programs such as employee cost savings suggestion program, the Make vs Buy Program, and major reengineering and process improvement projects.

– Six Sigma

Six Sigma is a rigorous, statistically based, customer-focused business methodology that is used to measure, analyze, improve and control key work processes.

## HUMAN RESOURCES

Has responsibility for ensuring human resources programs are developed and managed in compliance with applicable Federal, State, Department of Energy and corporate regulations and requirements, as well as general site practices, and performs the following work scope:

– HR Operations

Responsible for providing a broad scope of human resources services to the company divisions. Structured to align HR support services with production, technical, administrative and infrastructure personnel needs and assists division managers and their line organizations in the consistent implementation and effective administration of human resources initiatives.

– Compensation

Responsible for the design and implementation of compensation programs that comply with applicable Federal law. Compensation develops and obtains DOE-SR approval for annual salary increase plans for management, professional, and nonexempt employees, as well as monitors administration of those plans and reports salary increase fund spending.

– EEO and Diversity

Responsible for EEO reporting and external interfaces, along with developing programs and practices instilling a strong diversity management culture. Key activities include providing the company with an Affirmative Action program that is consistent with Federal, State, DOE, and Corporate regulations and guidelines, continuing development and implementation of a diversity strategic plan for the workforce, and sponsoring a Diversity Board of Directors.

– Benefits

Responsible for the design and administration of benefit programs that comply with applicable Federal and State laws, as well as for executing fiduciary responsibilities for all benefit plans. Develops and administers applicable medical, dental, HMO, mental health, chemical dependency, vision, life insurance, flexible spending health and dependent care plans and Savings and Investment Plan, Disability Plan, Pension Plan, and the Service Awards program for employees, dependents, and retirees.

– Integration Team

Responsible for integrating the functionality of PeopleSoft's product into all aspects of employee/employer data query and data collection activities.

– Resource Planning and Management

The Resource Planning and Management section is responsible for recruiting, reassignment, and relocation of employees. Conducts external recruiting activities for exempt and nonexempt positions, and develops and administers plans and policies for internal movement of exempt and

nonexempt employees including seniority system movement, job posting and upgrade programs, and workforce restructuring initiatives.

– Organizational Development

Responsible for providing employee and leadership development processes and programs that encourage and promote professional growth among WSRC employees and improve organizational performance.

Implements and administers the Strategic Development and Succession Planning System (SDSPS), supports the Personal Assessment and Development Process (PADP) instrument/process, and facilitates development of strategic leadership initiatives with WSRC Senior Staff.

– PeopleSupport Service Center

Responsible for providing first-level support to active employees and retirees on all matters related to personnel, benefits and payroll-related data. Activities include responding to customer inquiries for personnel, benefits, and payroll-related data, and resolving problems involving this data. Provides data entry and records management for all personnel, benefits and payrolls-related data in accordance with applicable Federal, state, DOE and Corporate regulations and guidelines.

## INTERNAL OVERSIGHT

-Internal Audit functions include:

- Strengthen internal controls
- Improve organizational and operating efficiency and effectiveness
- Improve the accuracy, reliability, and timeliness of financial, managerial, and operating information.
- Ensure compliance with site policies, procedures, laws, regulations, and the terms and conditions of the prime contract between DOE and the contractor.
- Safeguard government assets
- Support the accomplishment of program plans and objectives
- Foster quality and continuous improvement in organizational operations
- Prepare Annual Audit Plan
- Submit Annual Allowable Cost Audit to DOE
- Prepare and submit to DOE the Annual Report of Audit Activity for the previous year
- Coordinate Annual Assurance Memorandum and submit contractor input to DOE
- Identify cost-effectiveness opportunities site-wide

-Contract Audit

- Audit the adequacy of subcontractor accounting systems, cost proposals (pre- and post-award), termination claims, closeout, and costs charged to SRS
- Provide liaison between the Defense Contract Audit Agency, DOE-SR, and site procurement.

-Employee Concerns and EEO Internal Investigations

Program through which employees can express their concerns related to environmental, safety, health, safeguards and security, quality assurance, waste, fraud and abuse, mismanagement and other matters. Employees can anticipate that they will receive a timely response and that their

concerns can be expressed with no fear of reprisal. EEO investigations are designed to investigate and provide resolutions for employees' complaints including, but not limited to: discrimination, sexual harassment, unfair treatment and retaliation.

## GENERAL COUNSEL

Provide counsel, advice, research, preventive law training, and other support services to the site in all areas of corporate legal services.

## EXECUTIVE SUPPORT & MANAGEMENT

Has overall responsibility for supporting and implementing the vision of the SRS Strategic Plan and Department of Energy Headquarters (DOE-HQ) strategic execution guidance (e.g., the Environmental Management Program Performance Management Plan, the National Nuclear Security Administration Strategic Plan, etc.) by providing integrated management of the Nuclear Weapons Stockpile, Nuclear Materials, Environmental Stewardship missions, and Corporate Management Activities for the Department of Energy, Savannah River Site to implement the following objectives:

- \* Provide safe, secure, environmentally sound, and cost-effective operations;
- \* Accelerate risk reduction and cleanup;
- \* Conduct tritium operations, deliver tritium reservoirs, and perform surveillance testing in support of the Nuclear Weapons Stockpile Maintenance; and
- \* Manage disposition of nuclear materials and facilities.

## FINANCIAL SERVICES

The financial services function provides for establishing and maintaining a sound, cost-effective internal control system for the safeguarding of government assets and proper classification of cost, development of long-term and near-term budgets and forecasts and funds control at appropriate levels. Includes accounting, planning, budgeting, and reviewing work orders for Davis Bacon requirements. Includes such activities as accounts payable and cash management, payroll operations, benefits, travel, contract, and capital accounting. Services also include the development, central oversight, control, interpretation and application of accounting policies and procedures. Overall responsibility for development, administration, enhancement, and maintenance of the site financial infrastructure systems.

## PUBLIC AFFAIRS

Performs community outreach activities to develop and maintain relationships between regional organizations, community leaders and elected officials. Responsible for the planning, writing, production, publication, approval and distribution of messages directed to all site employees. This function also provides for division specific employee communications support and counsel, respond to news media inquiries on SRS operational and business issues, proactively place news about SRS in regional and national media, coordinate publication of SRS News, schedule SRS

speakers at events throughout the region, support site executives with speech-presentation materials for internal and external audiences, maintain and update public information (written, photographic and electronic). Responsible for the coordination and completion of executive driven projects, providing executive services, managing the Site Tours Program and Citizens Advisory Board (CAB).

## SCIENCE & TECHNOLOGY COMMERCIALIZATION

### – Technology Commercialization Program

Responsibility includes technology transfer efforts related to intellectual property that mutually benefit national security and U.S. industrial competitiveness and enhance SRS technology infrastructure and core competencies as required by public laws, DOE orders, and the prime contract.

### – University Relations Program

The SRS University Relations Program interfaces with U.S. universities (particularly those in S.C. and Ga.) to effectively leverage academic resources to advance the Site's mission and to build positive public relations through these interactions. The Program, which is directed by SRTC, consists of three major elements: University Research tasks, Research Internship and Recruitment and Retention.

## INTEGRATED BUSINESS CONFIGURATION MANAGEMENT

This function provides program management and the support services needed to integrate site business processes and underlying Information Technology systems.

## Essential Site Services

### Regulatory and Directive Compliance

Contribute to the safe startup and continuous operation of SRS facilities through leadership of the site effort for coordinating site wide regulatory/directive compliance programs including development and maintenance of program content and documentation, such as site-level manuals.

### Quality Assurance (QA), Quality Control/Quality Verification (QC/QV) and Quality Engineering Services

Provides site wide quality assurance/quality engineering support. Develops and obtains site contractor and DOE review and approval of site QA procedures, establishing the contractual and regulatory requirements for the QA Program; develops and maintains the QA Program documents; provides technical support to the site for QA program development, implementation

and assessment by leading teams, participating in groups, coordinating investigative activities, contacting offsite sources of information, reviewing training materials, and providing program guidance and interpretation to CQFs; represents QA on boards/councils; and evaluates, qualifies and certifies the independent quality verification inspectors. QC/QV provides site wide administration of the program by acting as the certifying authority for independent inspectors, auditors, and lead auditors. In addition, a site wide database is prepared and maintained for the site QV Inspector Qualifications.

#### Division Support (QA) Services

Provide the technical and management support for identifying, evaluating, reporting and tracking Price-Anderson Amendments Act (PAAA) noncompliance's and associated corrective actions with Department of Energy nuclear safety requirements.

Provide Site Item reportability and Issues Management (SIRIM) coordination including event, conditions, and concern determination for notification/reportability assessment, investigation, significance determination, and corrective actions which have or may have safety, health, quality assurance, security, operational, or environmental implications reportable to the Department of Energy.

Administer the Site Lessons Learned Program for the systematic review of the operating experiences at SRS facilities, similar DOE complex facilities, and commercial nuclear industry facilities for the purpose of communicating those lessons learned to the site.

Provide qualified Root Cause and Critique program expertise to the divisions for the purpose of identifying, analyzing and recommending cost effective recommendations for effectively implementing the Corrective Action Program.

Perform effectiveness review evaluations as requested by management and as required by specific standards and regulatory requirements and assist in the preparation and reporting of periodic and annual Management Evaluations.

Implementation of Site Wide Systems/ Programs for Integrated Safety Management, Assessment/Root Cause and Lessons Learned Contribute to the safe startup and operation of SRS facilities through effective evaluation and oversight activities that describe and implement a comprehensive and compliant Integrated Safety Management System at SRS.

#### Seismic

- Pressure Protection/Seismic Qualification/Seismic Time History.

Provides technical direction and oversight of SRS pressure protection program to assure that 2500 active pressure vessels and 5000 ASME code relief devices are base lined, registered and periodically inspected and evaluated for continued service. Also provide an updated technical guide to streamline the relief valve verification process based on SRS lessons learned and industry practice. Conduct training and examination to qualify ASME valve sizing record approvers. Develop software to automate calculation-intensive steps. Work with ASME, ASHRAE, API, etc. to streamline the verification process, particularly for original packaged equipment. Study valve shop test data to extend relief valve test frequency, if justified. Develop a risk-based criterion to reduce conservatism in generic over-pressure accident scenarios, if justified.

- Seismic Qualification

Participate in this EPRI sponsored initiative (SQRSTS), which operates as a Seismic Testing Cooperative for the Nuclear Industry.

- Seismic Time History

Develop an advanced methodology to generate synthetic time histories for use in seismic evaluation and design.

- Site Geotechnical Data

Operate and maintain database that houses all SRS geotechnical, seismological and geological (GSG) data and like regional data required for SRS programs. .

- Seismic Monitoring and Analysis

All tasks required to monitor, report, and define the seismic hazards for SRS. Operate and maintain the SRS and regional seismic network, generate SRS site-specific response spectra, evaluate faulting and related capability. In addition the impact of faulting with respect to hazardous waste sites and groundwater flow are reported. Monitor earthquake activity and the report size and location to the Emergency Operations Center. In addition, site specific response spectra are maintained in accordance with DOE STD 1023.

- Geotechnical Safety Analysis

Provides a complete update of the SRS GSAR Chapter one based upon the work performed for the MFFF and PCDF.

- Site Settlement and Monitoring

Integrate all facility-specific settlement monitoring performed onsite. The result will be a database of settlement monitoring data that can be accessed by operations and engineering for the benefit of decision making regarding existing structure movement and future settlement prediction. In addition, the settlement data will be more accessible and more reliable, as it will be verified and validated.

- Geotechnical and Environmental Technologies

The intention of performing added geotechnical tests on the soils is to develop a framework of engineering data that ultimately envelope properties of SRS soils; thus, setting guidelines for geotechnical analysis at SRS.

### Site Engineering Policies, Procedures and Standards

Revise and maintain engineering policies, procedures and standards to provide consistent cost effective engineering solutions and support affecting engineering codes and standards, conduct of engineering, procurement specifications and configuration management.

### Remote System Emergency Response Program

The Site Remote Systems Group will focus on providing rapid support to the site operating divisions in the use of remotely operated tools, autonomous vehicles, robots and remote audio/visual systems to support worker safety and health; Public and Environmental safety and

health; security; surveillance; reduction in man rem exposure and improved quality of process. Due to demand, these remote systems must be maintained in a ready, deployable state to provide 24/7 coverage site operations.

#### Non-Destructive Examination

Provide Cognizant Technical Function (CTF) and Design Authority Non-Destructive Examination (NDE) consultation to all central engineering organizations. Is the site representative to the Weapons Agency Nondestructive Testing Organization (WANTO) and to the JOint WORking Group (JOWOG) 39D.

#### Welding Consultation & Engineering Standards (WEG)

Cognizant welding technical function and design authority consultation performed with all central engineering organizations.

#### Safety Analysis Programs

Provides timely development, improvement and verification of analysis techniques which are required to support major site initiatives. These techniques support implementation of control sets consistent with new start ups and facility operations and address protection of the public, worker and environment. Focus areas for the program includes development and implementation of an integrated DSA guidance document which incorporates the lessons learned from the Consolidated Hazard Analysis Process (CHAP) and the recently completed HLW CST 830 DSA.

#### Regulatory Programs

Scope encompasses the satisfaction of Regulatory Requirements, the maintenance of processes required for SRS to meet Regulatory Requirements, support to the Operating Divisions in meeting Regulatory Requirements, and consolidation of regulatory processes to reduce their cost and improve their consistency.

#### Criticality Safety Program

Scope encompasses the verification of key nuclear criticality analysis techniques for application at SRS, i.e. SCALE 5 and MCNP-5, the deployment of recently verified methodologies for site-wide application through the Site Criticality Safety Manual SCD-3 and the maintenance of required programs related to criticality engineer training and qualification. Scope for the Radiological Engineering element of this program encompasses the revision of the radiological engineering methodology manual, development of training programs (i.e., including SARP and OSA), revision to NIM and 12-rad zone methodologies, and the verification of key radiological engineering analysis techniques (RASTA, MCNP-5) to reduce the complexity associated with, and reduce the time required to, perform shielding and 12-rad zone calculations for complex geometries.

#### Emergency Response to Unplanned Releases and Natural Events

Provide quality real-time site specific meteorological observations and forecast data, as well as atmospheric and surface hydrologic consequence assessments for timely response to site emergencies including unplanned releases and natural events, and for routine site operations, engineering applications, safety analyses, hazards assessments and environmental impacts.

Operate, maintain and develop the Weather Information and Display (WIND) System, the SRS consequence assessment capability for emergency response from a variety of instrumentation mounted on 8 SRS area towers and the SRS climatology facility, and a suite of atmospheric and surface hydrologic transport, diffusion and dosimetric models for emergency response. Operate, maintain, and develop the SRS Weather Center and Weather web page on Shrine, providing weather reports and forecasts to insure safe site operations. Provide Regulatory Air Quality Calculations and Assessments using site specific atmospheric and release inventory databases. Maintain, operate and develop Atmospheric Effluent Transport and atmospheric forecast models to assist site operations, such as for routine forest burns. Maintain, operate and develop Aqueous Effluent Transport models to determine offsite impact and mitigate the effects of planned and unplanned releases. Operate, maintain and deploy the TRAC vehicle and specific detector response to radioactivity releases and to identify unknown contaminations and radioactive sources. Provide high sensitivity analyses unable to be conducted by routine site analytical laboratories in support of personnel health protection, industrial hygiene and environmental restoration.

#### Site Development & Mapping

Provide Real Property Configuration Management for all 310 square miles of SRS lands consisting of: 1) Land use permitting to ensure beneficial use and good stewardship of DOE lands. 2) Infrastructure mapping to capture the current configuration of SRS facilities, utilities and infrastructure. 3) Site clearance permitting to ensure that the Site Development maps are revised with the latest as-built project drawing packages. 4) Building number, name, square footage, etc. to Shared Site Structures Database (SSSD), the Asset Management Database (AMIS) and DOE-HQ Facility Database (FIMS) and 5) Specialty mapping products including Emergency Response maps for WSI, EOC, Fire and Medical personnel; Rally Point Maps and Evacuation Maps.

#### Infrastructure Strategic Planning

Provide the basic principles and guidance for planning, budgeting, procurement, replacement, and management of the Site's common infrastructure asset portfolio. Integrate and direct all infrastructure planning and project ranking activities in the development of the site CE/GPP and LI project priority list. The principal output is the Integrated Infrastructure Program Plan (I2P2.) the central document used for infrastructure capital asset planning.

#### Construction ESS

Process in and out SRS subcontractors. This involves assisting employees through the SRS employment process, which includes, security, medical and drug screening. Assign temporary badges to subcontract employees for processing in only per the WSI security badge requirements.

#### Training Program

Provide analysis, design, development, implementation and evaluation of training that crosscuts the site, including training for maintenance, QA, operator fundamentals, waste generator,

radiological worker, respiratory, first-aid/CPR, security, general employee, CAT, HEC, fire watch, etc. Provide training support to site support divisions.

#### Wildlife Population Control (Deer Hunts)

Deer Control activities involve the survey and maintenance of 42 hunt compartments annually involving ~7,400 applicants; the selection of hunt dates and permit assignments for ~4,000 hunters; the processing of ~4,000 hunters onsite to include safety and hunter orientation, badging and transportation to hunt sites; the retrieval of harvested animals; and the field dressing and distribution of ~1,200 deer/hog killed during the hunts.

#### Waste Disposal Sites

Operate the Burma Road Landfill to accept inert construction, land clearing and demolition waste from site wide organizations and subcontractors. This involves oversight, tracking, and monitoring of incoming waste, providing required soil cover, grading, surveying, providing erosion control, performing daily inspections, preparing regulatory reports and making compliance notifications.

Operate a site wide program for environmental recycling, chemical redistribution, and hazardous waste processing.

#### Environmental Services

Coordinates site-wide environmental protection and compliance activities in the areas of water quality, air quality, generation and control of solid and hazardous waste, toxic substances control, and pollution prevention. Reports regarding SRS compliance with environmental regulations shall be submitted to SCDHEC, EPA, and the public. Assistance is provided to site management, operating organizations, DOE-SR, and regulatory agencies relative to environmental inspections and evaluations.

##### - Protection of Air Quality

Provide site support for compliance with federal, state, and local laws and regulations dealing with air quality. Responsibilities include review/evaluation of regulations for applicability/impact; interpret regulations, communicate with site; develop WSRC program strategy, lead/direct Sitewide compliance, assist with implementation, review compliance programs; interface with SCDHEC, EPA, DOE-NNSA; develop prepare, review, and obtain air permits; negotiate favorable agreements with regulators (e.g., FFCA for rad NESHAPS); prepare/submit site compliance reports; determine, measure and assess the radiological contribution of SRS operation on the environment and surrounding communities. Provide asbestos abatement/notification for D&D activity.

Provide permitting strategy and advance permits for new mission facilities.

##### - Protection of Water Quality

Provide site support for compliance with federal, state, and local laws and regulations dealing with water quality. Develop and implement strategy and ensure compliance with all applicable state and federal regulations. Interpret environmental regulations, ensure compliance, obtain permits, submit reports, and interface with regulators.

#### - Environmental Compliance Technical Support to Site Regulatory Issues

Ensures that SRS has the scientific basis needed for informed decision-making in compliance with federal, state and local environmental regulations and laws, e.g. CWA, NPDES, NEPA. Responds to environmental regulations and public concerns and supports regulatory requirements, permit applications, resource management, regulatory documentation, site development and land use planning, and report generation and review.

#### - NEPA/Oversight

Direct the planning and integration of environmental activities that cross multiple site organizational or functional area boundaries. Reviews proposed site projects/actions and prepare documentation for compliance with the National Environmental Policy Act. Provide support to DOE-SR in continuing to implement DOE Orders and procedures for compliance with NEPA at SRS. Prepare and support the preparation of all appropriate draft NEPA documentation for transmittal to DOE-SR. Coordinate all activities of the various SRS organizations related to gathering the information and preparing the documentation needed for NEPA compliance on specific site activities. Administer the SRS program involving receipt of Environmental Evaluation Checklists for all site activities. Maintain an active NEPA training program and other site NEPA Coordinators in implementing NEPA for site projects/activities and inform employees and subcontractors of their obligations under the Act. Maintain the site NEPA databases.

Manage the development and integrate M&O self-assessments of environmental program elements into site operations and activities. Incorporate site implementation of Integrated Safety Management System environmental aspects and ISO 14001 Environmental Management System principles into evaluations of the contractor environmental management system and provide program and facility specific improvement actions to responsible management for implementation consideration. Integrate environmental commitments into facility and site programs to ensure no environmental commitments are missed.

#### - Environmental Monitoring Services

##### 1. Environmental Sampling/Reporting

Direct the planning and integration of the effluent monitoring and environmental surveillance and waste sampling activities that cross multiple site organizational or functional area boundaries. Interpret requirements and ensure compliance with federal and state laws and DOE orders governing environmental monitoring and waste sampling activities. Direct efforts to ensure that proper environmental and waste samples are collected and analyzed in accordance with regulations and customer needs. Provide technical guidance, sampling and analytical services to various site organizations to support special projects. Oversee the contract with the Philadelphia Academy of Natural Sciences, which conducts biological monitoring of the Savannah River. Coordinate activities of the site's environmental ALARA (As Low As Reasonable Achievable) committee, which sets radioactive emission guidelines and monitors releases to ensure that they remain ALARA. Manage and provide technical oversight of the NPDES and waste program analytical services contracts. Participate in emergency response drills, and activate and deploy sampling personnel in the event of an environmental incident or emergency.

##### 2. Environmental Analytical Services

Plan, integrate and direct the administrative and technical activities required to prepare and analyze environmental and industrial hygiene samples as part of site monitoring programs. Direct laboratory operations. Ensure that state certifications are maintained for NPDES and SW-846 analyses, and that national certification is maintained for the industrial hygiene laboratory. Oversee offsite laboratory analytical contracts necessary to provide analytical capacity to meet the site's environmental monitoring and waste site investigation needs. Coordinate sample requests, data reporting, and technical and administrative activities for site customers.

- Control of Toxic Substances

Provide chemical or hazardous substance use or release information. Participate in state and community emergency response planning and response activities. Provide direct technical support to SRSOC on severity and reportability of environmental occurrences. Provide regulatory guidance to site emergency responders for incident recovery activities. Interpret requirements and ensure compliance with federal, state, and local laws and regulations governing the acquisition, storage, and use of chemicals. Develop site-level programs to comply with regulatory requirements associated with Community Right-to-Know legislation. Provide guidance to site organizations, submit compliance reports, and interface with regulators as required. Lead and manage regulatory-required data collection and reporting activities requiring integration across corporate boundaries. Annually report to federal and state agencies essential information on site chemical use and releases.

- Solid and Hazardous Waste Generation and Control

Lead for compliance with RCRA solid and hazardous waste laws and regulations, TSCA PCB regulations, and DOE orders for protection of the environment. Determine regulatory compliance requirements. Plan and develop policies and strategies to maintain facilities and programs in compliance. Serve as lead in interactions with federal, state, and local agencies regarding environmental compliance and permits, thereby facilitating consistent application of regulations, interpretations, and permit conditions affecting regulated units under custodianship of many divisions. Determine strategies to comply with new laws and regulations in a manner that is cost effective and supportive of operational objectives. Negotiate, determine, and develop compliance strategies for legally binding agreements with state and federal agencies (e.g. Site Treatment Plan for Mixed Wastes). Disseminate new solid and hazardous waste regulatory requirements to the field and provide compliance guidance and interpretations.

- Environmental Data Engineering

Provide ongoing application support for regulatory reporting. Support includes application maintenance, assistance with data access and analysis, management of information technology statement of work, and end-user support.

- Implement and Populate Environmental Data Warehouse

The data warehouse contains integrated information from multiple distributed, autonomous, and heterogeneous data sources. Consolidates and makes readily available data from geochemical, geotechnical, infrastructure, and ecological data systems. Consists of a re-engineered relational database that will provide consistency among data items and values. Centrally maintain and distribute the site's GIS base data.

## Safety and Health Protection Services

### - Administer and Manage the Respiratory Protection Program

Provide site employees with respiratory protection equipment designed to protect employees from airborne and skin exposures to radioactive and chemical health hazards. Provide a variety of respirators, approved by the National Institute for Occupational Safety and Health or the Department of Energy, to line organizations and their subcontractors. Each month the Respirator Equipment Facility (REF) processes (assembly, testing, maintenance, packaging) approximately 5200 negative pressure respirators and approximately 2,500 air-supplied respirators and conducts fit testing for approximately 350 site and subcontract employees. This includes identifying and implementing improvement initiatives, support and maintenance of training, procedures and product specifications, maintaining product quality and addressing non-conforming items, and overseeing subcontractor personnel who operate the REF.

### - Develop and Implement Site Safety Program

Provide written and published safety and supporting materials, training, and implementation expertise. Provide safety related technical services, hazard evaluation and resolution of issues for site-level activities in programs such as Behavior-Based Safety, Subcontractor Safety, Product Safety, and Voluntary Protection Program (VPP). Ensure establishment and revision of safety policies, resolution of safety issues, and involvement and support of safety programs are communicated, incorporated and implemented. Assist line management in integration of safety policies into work practices. Monitor and improve employee involvement in all aspects of WSRC safety program development, revision, and implementation. Serve as owners and subject matter experts for the procedures in Manual 8Q.

### - Compile and Manage Injury/Illness Recordkeeping

Provide for centralized injury and illness recordkeeping functions; reporting, recording, trending, analyzing safety performance and recordkeeping assessments for site employees. Establish and maintain OSHA 300 logs for each employer and audit subcontractor recordkeeping activities on a quarterly basis. Record, file, submit SC 12A, investigate and manage approximately 120 workers compensation cases and auto/general liability claims.

### - Medical

Provide, implement and manage a quality/cost effective site occupational health program. Maintain 75,000 medical records. Meet the intent of applicable DOE Orders and the requirements of OSHA regulations. Manage the Fitness-for-Duty and substance abuse testing and rehabilitation programs.

### - Performing Internal and External Dosimetry

Administer the site's internal and external dosimetry programs. Internal dosimetry aspects include: collecting bioassay samples for routine resampling and incident sampling, performing whole body counts and chest counts, and determining internal radiation dose to personnel based on sampling results.

External dosimetry program aspects are to prepare, calibrate, distribute, collect, process, and evaluate regular TLDs, neutron TLDs, special TLDs, extremity TLDs, and accident dosimetry for monitored site employees, subcontractors and visitors. TLDs for the environmental monitoring program are prepared and processed. Maintains, calibrates, and issues to SRS facilities Electronic Personal Dosimeters (EPDs). Other functions of the dosimetry program are to provide consulting services to the site on issues related to dosimetry, maintain radiological exposure history files, and prepare and disseminate exposure reports per regulatory requirements.

- Analytical Labs Support for Internal Dosimetry

Provide analytical support for the SRS Internal Dosimetry program, including the analysis of biological samples to determine the presence of specific radionuclides.

- Environmental Compliance Technical Support to Site Radiation Protection Issues

Ensure that: (1) modeling and calculation of radiation dose comply with environmental, safety and health requirements; (2) protocols are developed consistent with DOE orders and NRC guidelines; (3) expert knowledge, summary reports and consultation on behavior and effects of tritium and other radionuclides in the environment are current and readily available; and (4) input is provided to the DOE Biological Dose Assessment Committee and EPA/DOE Soil Screening Teams and implement their recommendations.