
**Washington Savannah River Company
Radiological Improvement Strategic Plan**



**2007
Revision 8**

**Washington Savannah River Company
Savannah River Site
Aiken, SC 29808**

Executive Summary

The WSRC Radiological Improvement Strategic Plan (RISP) provides the vision for SRS to promote continuous improvement in the SRS Radiological Control Program while at the same time achieving the most cost-effective program possible consistent with Integrated Safety Management (ISM) principles and functions. The Radiological Control Program also strives to protect workers from dangerous radiological conditions through controls that are based on the following hierarchy where feasible and appropriate: elimination or substitution of the hazard, engineering controls, work practices and administrative controls, and personal protective equipment. It defines strategies for improving the site's radiological control program and major milestones for achieving those goals, which are consistent with new missions and opportunities described in the SRS Strategic Plan. It is imperative that the site demonstrates continuous improvement by enforcing the workforce competencies necessary for successful execution of operations at SRS.

The RISP is endorsed by the Site ALARA Committee. Any site-level procedure or policy changes require the approval of the Site Policy and Procedure Council (SPPC). The RISP is issued each year to be available as a planning and budgeting tool for organizations in preparation of out-year budgets. It is understood, however, that with budget uncertainties, not all strategies may receive funding or priority. Therefore, the good faith strategies represent the intent of WSRC management to provide for continuous improvement in the site radiological protection programs, given uncertain funding issues and priorities.

Key strategies identified for safely improving the radiation protection program and enhancing cost-effectiveness are:

- Radiological Engineering: Site projects and emergent work will incorporate engineered radiological controls to minimize occupational radiation exposure and contain radioactive contamination at its source thereby reducing the life cycle costs of facility operations.
- Radiation and Contamination Control Training: SRS radiological workers will be trained and qualified commensurate with their level of responsibility for and involvement in radiological work.
- Optimization of Radiological Operations: A program is established to upgrade the quality and efficiency of equipment and processes of radiological control operations.
- Radiological Control Staffing: The radiological control organization will provide a flexible workforce of Radiological Control Inspectors, Multi-Skilled Technicians, Health Physics Professionals, etc., that can be rapidly deployed to meet high priority needs of the site.
- Integration of Site Hazards Analysis Programs: A single site wide hazard analysis program will be developed to control multiple hazards and eliminate the potential for competing controls which may occur in the existing independent hazard analysis systems. (e.g., RWP, AHA, Passport.)

The following benefits will be recognized with the implementation of the Radiological Improvement Strategic Plan:

- Improved control of contamination at the source
- Efficient, cost-effective job planning and safe execution of work
- Competent workforce trained and qualified to the appropriate hazard level and responsibility
- Reduced radiation dose to “ALARA”
- Upgraded quality and efficiency of radiological equipment
- Cost-effective radiological control practices
- Cost-effective radiological control support to facilities
- Efficient use of infrastructure to support new mission requirements
- Optimized radiological program providing the technical skills in support of new missions.

The Site ALARA Committee periodically reviews the RISP and may revise the goals and supporting statements to maintain the site’s momentum in advancing the occupational radiation protection program at the Savannah River Site.

Signature on file

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Strategic Goal A: Radiological Engineering	
Objective	
<p>Site projects and emergent work will incorporate engineered radiological controls to minimize occupational radiation exposure and contain radioactive contamination at its source thereby reducing the life cycle costs of facility operations. The following hierarchy of controls will be used : elimination or substitution of the hazard, engineering controls, work practices and administrative controls, and personal protective equipment</p>	
Plans for Achieving Goal A	Measures
<p>A.1 Enhance planning and incorporate the use of new technologies for radiological work activities to promote cost-effective hazard reduction.</p>	<p>Collective dose and costs are reduced. <i>Responsibility: Facility Managers Forum - Kim Hauer</i></p>
<p>A.2 Provide appropriate radiological design support for all new projects to ensure cost-effective solutions is implemented to control radiological hazards.</p>	<p>Facilities incorporate appropriate radiological design features. <i>Responsibility: RPS - Jim Stafford (N. Johnson)</i></p>
<p>A.3 Increase the SRS ALARA Center efforts in waste minimization/pollution prevention and radiological hazard reduction for safe and cost-effective operations. Optimize the use of engineered containments to minimize the spread of contamination.</p>	<p>Facilities incorporate new technologies for radiological work and waste minimization and pollution prevention activities. <i>Responsibility: Facility Managers Forum - Kim Hauer</i></p>
<p>A.4 The SRS ALARA Center continues to be the east coast ALARA Center of Excellence.</p>	<p>Other sites utilize services of the ALARA Center. <i>Responsibility: RPS - Jim Stafford (N. Johnson)</i></p>
<p>A.5 Involvement of Radiological Technology Group to provide support for new WSRC missions.</p>	<p>Radiological Technology support for new WSRC missions. <i>Responsibility: NNP – James Angelos</i></p>

Strategic Goal B: Radiation and Contamination Control Training	
Objective	
SRS radiological workers will be trained and qualified commensurate with their level of responsibility for and involvement in radiological work.	
Plans for Achieving Goal B	Measures
<p>B.1 Promote the use of the Advanced Radiological Worker Training (ARWT) program to allow radiological workers to perform specified monitoring.</p>	<p>Identified groups are trained and performing radiological control work within the scope of their training.</p> <p><i>Responsibility: Facility Managers Forum - Kim Hauer</i></p>
<p>B.2 Analyze data obtained through the Post-Training Evaluation Process for applicability to Radiological Training Programs.</p>	<p>Revisions to training programs incorporate applicable data obtained through Post-Training Evaluations (i.e. retention testing and in-field observations).</p> <p><i>Responsibility: RPS - Jim Stafford (R. Lorenz/H. Martin)</i></p>
<p>B.3 Initiate a Team Drill Program within facilities by incorporating diverse work groups (e.g., RCO, Maint, IH, Ops) in developing and conducting casualty response team drills. Incorporate lessons learned as applicable.</p>	<p>Facility Training implements a team drill program focused on casualty response for identified groups.</p> <p><i>Responsibility: Facility Managers Forum - Kim Hauer</i></p>
<p>B.4 Revise Radiological Control Inspector & RCO FLM training, retraining, testing & qualification to incorporate amendment to 10CFR851.</p>	<p>Provide an overview of those aspects of 10CFR851 applicable to the duties of RCO personnel.</p> <p><i>Responsibility: RPT&P – Robert Lorenz (N. Johnson)</i></p>

Strategic Goal C: Optimization of Radiological Operations	
Objective	
A program is established to upgrade the quality and efficiency of equipment and processes of radiological control operations.	
Plans for Achieving Goal C	Measures
C.1 Improve the cost-effectiveness of radiological control practices through the introduction of new technologies and improved methods for radiation monitoring.	Radiological control of work activities is improved. <i>Responsibility: RPS - Jim Stafford (T. Padezanin)</i>
C.2 Maintain and improve recently implemented radiological control software to improve access control, and track and report employee doses.	New software implemented and updated as conditions warrant. <i>Responsibility: RPS - Jim Stafford (T. Padezanin)</i>
C.3 Identify areas or other opportunities where survey frequencies should be established based on potential radiological conditions, probability of change in conditions, and area occupancy considerations to provide adequate radiological control for personnel.	Radiological survey programs are modified as facility changes dictate. <i>Responsibility: Area Radiological Control Managers</i>
C.4 Modify WSRC radiological clearance methodologies as necessary to maintain compliance with DOE requirements while minimizing implementation costs.	WSRC procedures are consistent with DOE requirements and costs are minimized. <i>Responsibility: RPS - Jim Stafford (K. Crase)</i>
C.5 Establish and maintain appropriate interfaces and procedures to promote cost-effectiveness and maintain adequate radiological protection programs within all business units.	Streamline Radiological Control procedures to be more cost-effective with no violations to 10CFR835. <i>Responsibility: RPS/Area Radiological Control Managers</i>

Strategic Goal D: Radiological Control Staffing	
Objective	
The radiological control organization will provide a flexible workforce of Radiological Control Inspectors, Health Physics Professionals, Multi-Skilled Technicians, etc., that can be rapidly deployed to meet high priority needs of the site.	
Plans for Achieving Goal D	Measures
D.1 Leverage subcontracted Radiological Control Technicians (RCTs) to ensure coverage through variations in staffing requirements.	Continued radiological coverage. <i>Responsibility: RPS/Area Radiological Control Managers</i>
D.2 Align WSRC Radiological Control Inspector (RCI) baseline staffing levels in accordance with facility hazard and multi-level staffing analysis, while increasing the use of alternative radiological control staffing (e.g., MST).	Cost-effective WSRC RCI baseline staffing levels are maintained. <i>Responsibility: RPS/Area Radiological Control Managers</i>
D.3 In order to provide adequate radiological engineering support for new and existing missions, retrain existing workforce or hire new professionals.	Adequate radiological engineering support is provided. <i>Responsibility: RPS/Area Radiological Control Managers</i>
D.4 Continue to provide Radiological Assistance Program (RAP) resources.	Meet training and deployment responsibilities. <i>Responsibility: RPS - Jim Stafford (R. Lorenz)</i>

Strategic Goal E: Integration of Site Hazards Analysis Programs	
Objective	
A single site wide hazard analysis program will be developed to control multiple hazards and eliminate the potential for competing controls which may occur in the existing independent hazard analysis systems. (e.g., RWP, AHA, Passport.)	
Plans for Achieving Goal E	Measures
E.1 Evaluate the relationship between task descriptions contained in PassPort Work Instructions, Radiological Work Permits, and Safe Work Permits to determine the appropriate alignment of tasks in these documents.	Revise Radiological Work Permit procedure 5Q1.1-504; Site Work Management System (PassPort) Maintenance Business Administration per Procedure Manual 12B; Site Maintenance 1Y Manual procedure 8.20 and 8Q-122 Hazard Analysis as necessary. <i>Responsibility: ES&H – Mike Matheny, Jim Tisaranni , Tim Flake (R. Collins)</i>
E.2 Revise 5Q1.1-504, Radiological Work Permit procedure to include specific expectations and criteria for task breakdown, hazards analysis, detailed instructions for the use and review of previously used RWPs, RCO coverage requirements, accuracy of radiological information, and effective integration of radiological and non-radiological controls.	Radiological Work Permit procedure 5Q1.1-504 is revised. <i>Responsibility: RPS – Jim Stafford (P. Williams)</i>
E.3 Review the WSRC 4Q & 5Q series of procedures to validate controls for radiological and non-radiological hazards and implement changes needed to ensure that appropriate controls are consistently determined and clearly communicated to the worker.	AHA Hazard Tree , WSRC 4Q & 5Q Manuals are reviewed <i>Responsibility: ES&H – P.Padezanin-4Q, M. Matheny - 5Q, R. Collins –Hazard Tree Revision</i>