

Washington Savannah River Company

2007 ALARA Goals (U)

December 2006

CY07 ALARA Goals

Executive Summary

The ALARA goals for the Savannah River Site for calendar year 2007 were established by the appropriate radiological facilities and their support groups based on the anticipated work for the year.

The 74.60 rem cumulative exposure goal is for annual base routine operations. Exposure goals for special (non-recurring) work operations are maintained by calendar quarter. The preliminary special work goal for the year is 32.40 rem. The total exposure goal for 2007 is 107 rem. In comparison, the initial goal for 2006 was 124 rem and then it was reduced in August, 2006 to 121 rem to reflect updated work schedules. The 2007 goal is a 12 % reduction from the final 2006 goal.

An annual Administrative Control Level (ACL) for individual exposure of 500 mrem Total Effective Dose Equivalent (TEDE) has been established for the site. This is a 17 % reduction from the 2006 ACL of 600 mrem. The site ACL for DOE-SR employees remains at 150 mrem. In comparison the federal limit for radiation exposure is 5,000 mrem in a year with DOE/National Nuclear Security Administration Secretarial Officer, or designee, approval is necessary for allowing an employee to exceed 2,000 mrem in a year.

The personnel contamination goal of 8 events is the sum of both skin contamination and personnel effects events. This is a reduction from the 2006 goal of 9 events.

The goal for intakes of radioactive material resulting in an exposure greater than 500 mrem Committed Effective Dose Equivalent (CEDE) from a single event continues to be zero.

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Radiological Performance Goals

Cumulative Radiation Exposure is based on total effective dose equivalent exposures (including tritium) resulting from Base Routine Operations and Special Work Operations.

- *Base Routine Operations* are related to normal day to day activities.
- *Special Work Operations* are not part of routine operations and typically are of limited, non-repetitive duration. Special Work Operations goals are reviewed quarterly by the facilities and goals may be adjusted accordingly.

Maximum Individual Exposure/Administrative Control Levels are established to maintain personnel radiation exposure well below the Department of Energy's Administrative Control Level of 2,000 mrem, while being both challenging and achievable for the site.

Personnel Contamination Events are established for skin and personnel effects contamination events that are reportable in accordance with the criteria contained in DOE M 231.1-2, "Occurrence Reporting and Processing of Operations Information." These reporting criteria are available in the site's SIRIM/ORPS information system.

Confirmed Intakes Resulting in CEDE >500 mrem are established for a single intake of radioactive material that exceeds the anticipated exposure by 500 mrem or greater. This criterion is based on DOE M 231.1-2, "Occurrence Reporting and Processing of Operations Information." The reporting criterion is available in the site's SIRIM/ORPS information system.

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Organization	Base Routine (rem)	Special Work (rem)	2007 Total Cumulative Exposure Goal (rem)
Management & Operations			
<i>H-Area Material Disposition</i>			
HB-Line	2.80	6.20	9.00
H-Canyon/OF	5.10	2.80	7.90
<i>F-Area Closure</i>			
FBL/FCA/OF/235-F	4.00	0	4.00
<i>Site D&D</i>			
	1.00	0	1.00
<i>Nuclear Materials Management</i>			
K-Area	6.00	2.00	8.00
<i>Waste Management Area Project</i>			
E-Area, ETP, INF	13.50	0	13.50
<i>Laboratories</i>			
772-F/772-1F	5.50	0	5.50
<i>Defense Programs</i>			
TRI/TEF	1.40	.60	2.00
<i>Miscellaneous¹</i>			
SFP/SGCP/Others	3.00	0	3.00
Liquid Waste Operations			
<i>Waste Solidification Projects</i>			
DWPF	2.00	0.50	2.50
Saltstone	3.70	1.80	5.50
<i>Liquid Waste Disposition Projects</i>			
H-Tank Farm/299-H	11.10	10.60	21.70
F-Tank Farm	6.50	6.90	13.40
Savannah River National Laboratory	9.00	1.00	10.00
Site Totals	74.60	32.40	107

¹Miscellaneous (SFP.600 base + .300 special; SGCP 0.050 base + .200 special; and other minor contributors to site total)

WACKENHUT SERVICES INCORPORATED - 1.5 rem (Total dose estimate from all facilities)

SRS ADMINISTRATIVE CONTROL LEVEL - 500 mrem

DOE-SR ADMINISTRATIVE CONTROL LEVEL - 150 mrem (for DOE-SR employees)

PERSONNEL CONTAMINATION EVENTS - 8