

Savannah River Site

2012 ALARA Goals (U)

December 2011

CY12 ALARA Goals

Executive Summary

The ALARA goals for the Savannah River Site for calendar year 2012 were established by the appropriate radiological facilities and their support groups based on the anticipated work for the year.

The annual base routine operations cumulative exposure goal is 121 Rem. Exposure goals for special (non-recurring) work operations are maintained by calendar quarter. The preliminary special work goal for the year is 47 Rem. The total exposure goal for 2012 is 168 Rem. In comparison, the goal for 2011 was 172 Rem. The 2012 goal is a 2.4 % decrease from the 2011 goal.

SRS has established an annual Administrative Control Level (ACL) of 500 mRem Total Effective Dose (TED) for most Site workers, the same as past few years. This can be compared to the DOE ACL of 2,000 mRem, and a federal limit of 5,000 mRem. Contractor chief official approval is necessary to allow a contractor employee to exceed the SRS ACL. DOE/National Nuclear Security Administration Secretarial Officer, or designee, approval is necessary to allow a Site worker to exceed the DOE ACL. DOE-SR has re-established the Site ACL for DOE employees at 150 mRem.

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

CY12 ALARA Goals

Radiological Performance Goals

Cumulative Radiation Exposure is based on total effective dose 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 as approved by the company's executive committee.

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 CED >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.

CY12 ALARA Goals

Business Unit	Base Routine (Rem)	Special Work (Rem)	Total Cumulative Exposure Goal (Rem)
Management & Operations Total	71.728	21.02	92.748
<u>H-Area Material Disposition</u>			
HB-Line	1.1	1.5	2.60
H-Canyon/OF	4.3	4.9	9.20
<u>Nuclear Materials Storage Project</u>			
K-Area	17.4	0.52	
L-Area	0.40	0.20	18.52
<u>Solid Waste</u>			
E-Area	31.0	10.0	41.00
<u>Area Completion & I&S</u>			
INF, SGW, SDD, Misc.	2.86	0.2	3.06
<u>Tritium Projects</u>			
TRI/TEF	0.30	0.10	0.40
<u>Laboratories</u>			
772-F/772-1F/735-B/735-2B	4.0	0.0	4.0
<u>F-Area</u>	0.74	0	0.74
Savannah River National Laboratory	9.628	3.6	13.228
WSI Total	1.50	0	1.50
Liquid Waste Operations Total	47.424	26.305	73.729
<u>Waste Solidification Projects</u>			
DWPF	6.90	0.6	7.5
Saltstone	14.6	8.4	23.0
<u>Liquid Waste Disposition Projects</u>			
H-Tank Farm/299-H/ETP/F-Tank Farm	25.924	17.305	43.229
Site Goal	121	47	168

SRS ADMINISTRATIVE CONTROL LEVEL – 500 mRem

DOE-SR ADMINISTRATIVE CONTROL LEVEL – 150 mRem (for DOE-SR employees)