

Savannah River Site

2017 ALARA Goals (U)

June 2017

CY17 ALARA Goals

Executive Summary

The ALARA goals for the Savannah River Site for calendar year 2017 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 78.30 Rem. Exposure goals for special (non-recurring) work operations are maintained by calendar quarter. The preliminary special work goal for the year is 63.20 Rem. The total exposure goal for 2017 is 141.5 Rem. In comparison, the goal for 2016 was 103.425 Rem. The 2017 goal is a 37 % increase from the 2016 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 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.

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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 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 are established for a single intake of radioactive material that exceeds the anticipated exposure of 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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Business Unit	Base Routine (Rem)	Special Work (Rem)	Total Cumulative Exposure Goal (Rem)
Management & Operations Total	45.55	16.555	62.105
<u>H-Area Material Disposition</u>			
HB-Line	2.30	0	2.30
H-Canyon/OF	4.6	9.630	14.230
<u>Nuclear Materials Storage Project</u>			
K-Area	12.1	6.0	18.1
L-Area	0.70	0.30	1.0
<u>Solid Waste</u>			
E-Area	4.6	0	4.6
<u>INF</u>	2.0	0	2.0
<u>EC&ACP</u>			
SGWR, Facility Disposition, BAL	0.25	0	0.25
<u>Tritium Projects</u>			
TRI/TEF	0.20	0.225	0.425
<u>Laboratories</u>			
772-F/772-1F	7.0	0	7.0
<u>F-Area Operations</u>	1.2	0	1.2
Savannah River National Laboratory	10.6	0.4	11.0
Centerra-SRS Total	4.0	0	4.0
Liquid Waste Operations Total	36.265	57.785	94.05
<u>Waste Treatment</u>			
DWPF/Saltstone	16	22.180	38.180
<u>Tank Farms</u>			
H-Tank Farm/299-H/ETP/F-Tank Farm	20.265	35.605	55.870
Site Goal	85.815	74.34	160.155

SRS ADMINISTRATIVE CONTROL LEVEL – 500 mRem

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