

# **Savannah River Site**

## **2023 ALARA Goals (Revision 2)**

<b>Revision</b>	<b>Revision Justification</b>
<b>1</b>	Decreased F-Area Operations (FCA/CLB) and Centerra ALARA goals per SRNS-RP-2023-00623 “1 <sup>st</sup> Quarter 2023 Site ALARA Committee Meeting Minutes.”
<b>2</b>	Increased ALARA Goals for H-Canyon and L-Area per SRNS-RP-2023-01004 “Site ALARA Committee Meeting Minutes 2 <sup>nd</sup> Quarter 2023.” Also increased ALARA Goals for LWO per SRMC-ESH-2023-00120 “Executive Safety and Quality Board Meeting Minutes.”

**Executive Summary**

The ALARA goals for the Savannah River Site for calendar year 2023 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 90.585 Rem. Exposure goals for special (non-recurring) work operations are maintained by calendar quarter. The preliminary special work goal for the year is 102.315 Rem. The total exposure goal for 2023 is 192.9 Rem. In comparison, the goal for 2022 was 137.225 Rem. The 2023 goal is a 41% increase from the 2022 goal. 24% of the increase is due to the addition of Salt Waste Processing Facility (SWPF) to Savannah River Mission Completion (SRMC) and the outages planned within that facility. The other 17% increased work scope identified by other facilities.

SRS has established an annual Administrative Control Level (ACL) of 500 mRem Total Effective Dose (TED) for most site workers. Qualified K-Area KIS Glove Box (GB) Operators will be assigned an ACL of 800 mRem. Savannah River Mission Completion (SRMC) has established an ACL of 1000 mRem for all Salt Waste Processing Facility (SWPF) employees. These 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.

**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 O 232.2A, "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 232.2A, "Occurrence Reporting and Processing of Operations Information." The reporting criterion is available in the site's SIRIM/ORPS information system.

Business Unit	Base Routine (Rem)	Special Work (Rem)	Total Cumulative Exposure Goal (Rem)
<b>Management and Operations Total</b>	<b>32.721</b>	<b>21.379</b>	<b>54.100</b>
<b><u>H-Area Material Disposition</u></b> H-Canyon/ H-Outside Facilities/ H B-Line	6.881	5.619	12.500
<b><u>Nuclear Materials Storage Project</u></b> K-Area	10.300	14.500	24.800
L-Area	2.840	0.360	3.200
<b><u>Solid Waste (E-Area)</u></b>	3.600	0	3.600
<b><u>INF/SGP</u></b>	4	0	4
<b><u>Tritium Projects</u></b>	2	0.900	2.900
<b><u>F-Area Operations</u></b>	3.100	0	3.100
<b><u>Battelle Savannah River Alliance Total</u></b>	<b>18</b>	<b>0.500</b>	<b>18.500</b>
<b><u>Centerra-SRS Total</u></b>	<b>3</b>	<b>0</b>	<b>3</b>
<b><u>Liquid Waste Operations Total</u></b>	<b>36.864</b>	<b>80.436</b>	<b>117.300</b>
<b><u>Waste Treatment</u></b> DWPF/ Saltstone	14	14.2	28.200
<b><u>Tank Farms</u></b> H-Tank Farm/ 299-H/ ETP/ F-Tank Farm	22.464	30.236	52.700
<b><u>Salt Waste Processing Facility</u></b>	0.400	36.000	36.400
<b><u>Site Goal</u></b>	<b>90.585</b>	<b>102.315</b>	<b>192.9</b>

SRS ADMINISTRATIVE CONTROL LEVEL – 500 mRem

KAC KIS Glove Box (GB) Operators ADMINISTRATIVE CONTROL LEVEL – 800 mRem

SWPF ADMINISTRATIVE CONTROL LEVEL – 1000 mRem

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