December 17, 2020

Created by Pamela A. Powell

Site ALARA Committee & Change Control Board Meeting

The Site ALARA Committee and Change Control Board held a teleconference.

Rollcall was performed and Quorum was met for the SAC and CCB. (See Attached)

1) Introduction: Kent Williams

Kent welcomed everyone to the meeting. Safety share was discussed involving Holiday safety(injuries, ladder safety, decorative candle safety, Christmas tree fires, choking hazards for kids, and using right tools to open gifts). Covid-19 awareness during holiday season was also discussed.

2) Environmental ALARA: Teresa Eddy

Teresa gave an overview of Liquid and Airborne ALARA guides status through September (See attached).

Environmental ALARA committee requested an increase in A Area Liquid ALARA release guide. Increase request is due to a unanticipated statistically significant technetium-99 results at TB-2 in July and August. Dennis Carr asked several questions about this exceedance and requested a briefing on the scope of the exceedance investigation. The increase was approved per the board.

Teresa Eddy also discussed the high RPD chain of custody error rate for samples. John Gall requested that errors be sent to him for action.

2021 Environmental Liquid and Airborne guides will be sent out via email for SAC committee approval.

4) Review of YTD Quarter Performance: Pamela Powell

Performance Indicators were reviewed (See Attached)

4) Review of 2021 ALARA Goals: Pamela Powell

The 2021 ALARA goals were presented for review and approval. Question was asked why the increase from 2020 to 2021. It was discussed that the measurement capability of the new dosimetry is better. Question was asked if the KAC goal was adequate seeing that the shifts would be increased and the significant construction work planned for 2021. It was stated that the

goal was adequate because the majority of the construction work would be performed in a clean area. Question was asked if the Centerra goal was adequate based on them exceeding 2020 goal. It was stated that 2020 goal was exceeded due to oversight on including EA annual training dose into the goal. There would be no EA training in 2021 and therefore the goal is adequate.

The 2021 ALARA goals were approved per the board.

There were no further comments or questions and the meeting was adjourned.

SRNS-J6000-2021-00002

SITE ALARA COMMITTEE
&
CHANGE CONTROL BOARD

ATTENDANCE ROSTER

Meeting Date: 12/17/2020 **Quarter/Year:** 3rd/2020

	Chair		Alternate
✓	Dennis Carr		Wyatt Clark
	Doug Bumgardner (Vice Chair)	✓	John Gall

	SAC Voting Member		Alternate
✓	Kent Williams (Ex. Secretary)	✓	Roy Windham
	Richard Sprague (ESH&Q)		Mary Flora
	Deborah Solomon (SRTE)	✓	Ruby Parks
✓	Verne Mooneyhan (SWM/TRU)		Robert Minnick
✓	Scott Germain (NMD)		Nicholas Miller
	Janice Lawson (NMSP)		Durwood Melvin
✓	Geoffrey Smoland (SRNL)		Scott Craft
	Doug Bumgardner (TF)		
	Joel Cantrell (WT)		
	William Harris		
	John Gall (LWO RPD)	✓	Carol Hunter
	Tim West (EC&ACP)		

Quorum Requirements: SAC = Chair/Vice Chair + 7 other members* = 8 total
*Member may be represented by designated alternate. At least 2 members from each company are required for an official vote.
CCB = Chair/Vice Chair* + 5 other members = 6 Total May be represented by designated alternate.

Quorum Met SAC: Yes No
Quorum Met CCB: Yes No

SITE ALARA COMMITTEE
&
CHANGE CONTROL BOARD

ATTENDANCE ROSTER

Other Meeting Attendees (print name)

Ben Terry	Phillip Owens
Kevin Webster	Joyce Hopperton
Eric Domain	Trinidad Bush
Martha Thompson	Sean Proteman
Page Courtney	Paul Bordon
Brian Ashe	Lillie Gordon
Todd Brantley	Thomas Chalker

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3rd Quarter Site ALARA Committee Meeting

Kent Williams

Radiological Protection Director

Savannah River Nuclear Solutions, LLC

December 17, 2020

AGENDA

1.	Introduction	Kent Williams
2.	Environmental ALARA	Teresa Eddy
3.	YTD Performance Indicators	Pamela Powell
4.	2021 ALARA Goals	Pamela Powell

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Environmental ALARA Update

Teresa Eddy
Environmental ALARA Chairperson
Savannah River Nuclear Solutions, LLC
December 2020

CY2020 Liquid ALARA guides status

Liquid Discharges
ALARA Guide Summary Report for All Areas
September 2020

Area	YTD TED (mrem)	Projected Annual TED (mrem/yr)	Alara Guide (mrem/yr)	YTD % of Guide	Projectec % of Guide
A-Area	1.44E-04	1.92E-04	6.00E-05	240%	320.6%
F-Area	1.93E-04	2.57E-04	5.20E-04	37.0%	49.4%
F-Tk Frm	7.16E-04	9.55E-04	1.00E-03	71.6%	95.5%
H-Area	1.02E-04	1.36E-04	1.04E-03	9.8%	13.1%
H-ETP	5.63E-04	7.50E-04	7.25E-03	7.8%	10.4%
H-Tk Frm	2.07E-03	2.76E-03	8.65E-03	24.0%	31.9%
K-Area	6.34E-06	8.45E-06	8.55E-06	74.1%	98.9%
L-Area	1.36E-05	1.82E-05	7.08E-05	19.2%	25.7%
S-Area	1.01E-06	1.35E-06	1.50E-04	0.7%	0.9%
Tritium	3.96E-05	5.28E-05	3.00E-04	13.2%	17.6%
Site Totals:	3.85E-03	5.13E-03	1.90E-02	20.2%	27.0%

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Increase Request for Liquid ALARA guide for A-Area

- **SRNL is requesting an increase to the A-Area Liquid ALARA Release Guide from 6.00E-05 to 2.7E-04 mrem/yr**
  - Primarily due to an unanticipated statistically significant technetium-99 (^{99}Tc) results at TB-2 in July and August.
  - SRNL is continuing to evaluate the list of potential contributors through sampling the potential sources (non-contact cooling water, steam and A/C condensates, trade waste drains from non-rad buildings, cooling tower discharge, well flush water, steam cleaning rack, groundwater air stripper effluent from outfall A-1A and storm water) that may influence the statistically significant levels of Tc-99.
  - Corrective actions/improvements/evaluations to date include:
    - *Clean-out of culvert and installation of silt fencing to reduce debris*
    - *Conducted several walkdown inspections and developed a plan to reduce sedimentation buildup*
    - *Established a monthly tickler to officially begin walkdown inspections December 2020*
    - *Reviewed and re-established the maintenance MOU to execute cleanout activities as needed*
    - *Consulted with EMP and SRNL re:Tc-99 having little to no tendency to bind to sediment*
  - A final investigation closure report will be issued at the end of a special sampling series performed to better understand the effluent contributors to Outfall TB-2.

CY2020 Airborne ALARA guides status

Airborne Emissions
ALARA Guide Summary Report for All Areas
September 2020

Area	YTD TED (mrem)	Projected Annual TED (mrem/yr)	Alara Guide (mrem/yr)	YTD % of Guide	Projected % of Guide
A-Area	3.04E-07	4.06E-07	5.11E-02	0.0%	0.0%
C-Area	7.22E-05	9.63E-05	2.31E-04	31.3%	41.7%
F-Area	8.85E-05	1.18E-04	1.40E-03	6.3%	8.4%
H-Area	1.28E-05	1.70E-05	5.00E-03	0.3%	0.3%
H-ETP	0.00E+00	0.00E+00	1.00E-07	0.0%	0.0%
H-Tk Frm	1.25E-09	1.67E-09	1.00E-06	0.1%	0.2%
J-Area	1.33E-10	1.77E-10	5.00E-06	0.0%	0.0%
K-Area	1.29E-03	1.72E-03	4.05E-03	31.9%	42.5%
L-Area	1.47E-03	1.96E-03	4.50E-03	32.7%	43.6%
S-Area	2.73E-05	3.64E-05	5.00E-05	54.6%	72.7%
Tritium	7.31E-03	9.74E-03	8.95E-02	8.2%	10.9%
Z-Area	3.42E-08	4.57E-08	5.00E-06	0.7%	0.9%
Site Totals:	1.03E-02	1.37E-02	1.56E-01	6.6%	8.8%

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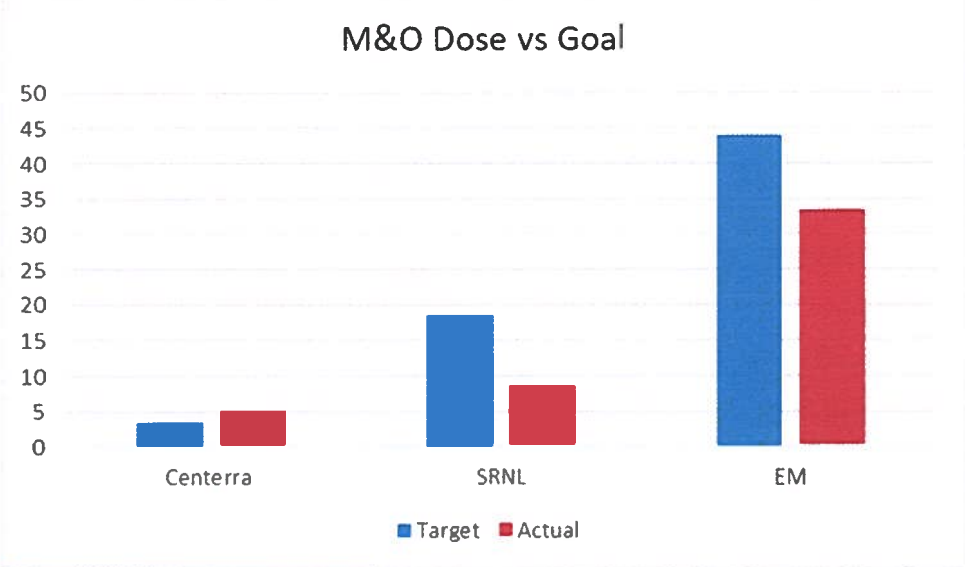
CY2021 Liquid and Airborne ALARA guides

- Environmental ALARA Committee meeting was held December 2.
- ECAs are submitting their proposed ALARA guides this month.
- The E-ALARA Chairperson will send the proposed CY2021 ALARA guides for SAC approval in late December.

M&O Dose vs Goal



Title	*Target	*Actual	Percent
Centerra	3.5	4.938	+41.09
SRNL	18.5	8.65	-53.24
EM	43.902	33.255	-24.25

*Dose(Rem)

LWO Dose vs Goal

Title	*YTD 2020
LWO Target	55.5
LWO Actual	42.488
LWO Percent	-23.45

*Dose(Rem)

Maximum Individual Dose

Title	*YTD	Facility
EM	0.194	KAC
LWO	0.366	HTF
SRNL	0.199	
Centerra	.070	

*Dose(Rem)

Maximum Extremity

Title	*CY20
EM Maximum Extremity Dose	1.67 (NMD)
LWO Maximum Extremity Dose	2.724 (HTF)

Dose(Rem)

Radiological Events

Title	YTD 2020	Event
M&O ORPS PerCon	0	
M&O Non ORPS Percon	0	
M&O ORPS Rad Mat	2	• SRNL Legacy Material Identified • Radioactive Contamination found in Central Sanitary Waste Treatment facility sludge
M&O Non ORPS Rad Mat	0	
LWO ORPS PerCon	0	
LWO Non ORPS PerCon	0	
LWO ORPS Rad Mat	0	
LWO Non ORPS Rad Mat	0	

Intakes

Title	CY20
M&O > 500 mrem	0
M&O > 100 mrem	0
LWO > 500 mrem	0
LWO > 100 mrem	0

+/- 25 %

Facility	*Target	*Actual	Percent
Centerra	3.5	4.938	+41.09
SRNL	18.5	8.65	-53.24
FCA	1.70	0.687	-60.39
L AREA	2.0	1.112	-44.4
TRIT	2.652	1.423	-48.62
KAC	12.8	8.866	-30.73

*Dose(Rem)

2021 ALARA Goals

Facility	*2021 Goal	*2020 Goal
HBL/HCA/HOF	12.0	10.75
KAC	15.8	12.8
L Area	2.74	2.0
SWM	4.0	3.6
INF/EC&ACP	4.0	3.6
Tritium	2.225	2.652
Clab	4.3	6.8
FCA	1.2	1.7
SRNL	18.0	18.5
Centerra	4.0	3.5
Waste Treatment	24.53	15.294
Tank Farm	48.735	40.243
Site Total	141.53	121.44

*Dose(Rem)