

May 16, 2022

Created by Diana Jennings

## **Site ALARA Committee and Change Control Board Meeting**

The Site ALARA Committee and Change Control Board meeting was held via Microsoft Teams. Rollcall was performed and quorum was met for the SAC and CCB. (See attached)

### **1. Introduction: Kent Williams**

Kent welcomed everyone to the meeting. The safety topic was heat stress. He reminded everyone to ensure their personnel were properly hydrating and cool down areas were being established. Tim West added that May is Electrical Safety Awareness month and reminded everyone to do housekeeping and safety walkdowns to ensure any electrical hazards are controlled properly. Kent agreed, then turned the meeting over to Teresa Eddy for the Environmental ALARA overview.

### **2. Environmental ALARA: Teresa Eddy**

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

Teresa discussed the Liquid Discharges for Environmental ALARA, noting that H-Area and K-Area Projected Annual TED were higher than the ALARA guide. See attached for H-Area Liquid ALARA Guide Increase Request information. Dennis Carr asked if the source was discovered. The answer was yes and that it is being controlled but not completely removed. He also asked if the increase was adequate. Answer was yes based on grab samples and the leak being controlled. There may be an additional request for increase in the future. Kent Williams asked if this level increase was related to the Low Ph issues. Answer was yes. Because of this, the new proposed ALARA Guide is conservative. An increase was requested for H-Area liquid discharges from 5.20E-04 to 5.20E-3. This change was approved per the board.

Teresa then discussed the K-Area Liquid Discharges increase. She stated that the investigation is on-going but that the cause of the exceedance were detectable levels of Sr-80/90 following a significant rain event. Dennis Carr asked if the source was due to legacy contamination in the piping or in rocks surrounding the piping. Answer was the source is unknown. He also asked if the samples were filtered or unfiltered. Answer was that samples are unfiltered. Dennis suggested filtering sample at next exceedance. They do not request an increase at this time, however, there will be an update before the issuance of the April report.

Teresa then discussed Environmental ALARA Guide Status for Airborne Emissions for March 2022. (See attached)

### 3. Review of YTD Quarter Performance: Diana Jennings

Performance Indicators were reviewed. (See attached)

On the Maximum Individual Dose (See slide 10 of attachment) for SRNL, 0.114 Rem dose was removed due to REDI. Dosimetry was passed through X-ray machine during travel. The question was asked if this a repeat incident for the individual. Kent Williams stated that he was unsure of this but would investigate. It was later discovered that this was not a repeat incident for the same individual.

### 4. +/- 25%

Facility	*Target	*Actual	Percent
CLB	1	0.454	-53.4
FCA	0.075	0.022	-70.67
INF	1	0.737	-26.3
LLL	0.75	0.388	-48.27
KAC	9.2	3.950	-57.07
Centerra	1.25	0.868	-30.56

**CLB, FCA, INF-** Terry Pifer explained for CLB and FCA that deactivation activities for both facilities are on-going but there were not as many entries in higher dose areas as expected for 1<sup>st</sup> Quarter. He commented that they were making the first entrances of the year into FCA and F B-Line today (5/16/2022). For INF, Terry explained that all ALARA goals are based off of historical data and due to the limited amount of work done that receives dose it is hard to stay within +/-25% with such a small margin of error. Terry suggested that we revisit how we report these numbers when the actual numbers are not significant amounts of dose. There was no request to change ALARA Goals for any of these facilities.

**LLL-** Robbie Black commented on L-Area's dose and explained that they had included Centerra personnel dose in the original ALARA Goal. They will be revising that, but as of today no changes are requested.

**KAC-** Robert Entzminger explained that Centerra dose was included in K-Area's ALARA Goals as well. Also, expected dose was overestimated for material processing work done the first quarter versus actual dose. They will also be revising their ALARA goal, but as of today, no changes are requested.

**Centerra-** Ethan Vanfossen discussed the change in post in K-Area that effected dose for Centerra. There were no requests for changes to Centerra's ALARA Goal at this time.

## **5. Questions or Comments**

Robert Entzminger discussed the additional tracking that K-Area along with External Dosimetry has done and will continue to do. Personnel dose is updated monthly to ensure K-Area personnel do not exceed the Administrative Control Levels (ACLs) of 500 mRem. Robert also discussed the briefing they are giving to K-Area Operations personnel to ensure they are aware of the process. Personnel ACLs will be adjusted if needed on a case by case basis.



# Site ALARA Committee Meeting

**Kent Williams**

Radiological Protection Director  
Savannah River Nuclear Solutions, LLC  
May 16, 2022

1st Quarter Review - 2022

Teleconference

## AGENDA

- |                                       |                |
|---------------------------------------|----------------|
| 1. Introduction                       | Kent Williams  |
| 2. Environmental ALARA                | Teresa Eddy    |
| 3. 1st Quarter Performance Indicators | Diana Jennings |



# Environmental ALARA Update

Teresa Eddy

Environmental ALARA Chairperson

Savannah River Nuclear Solutions, LLC

May 2022

## 2022 Environmental ALARA Guides Status- Liquid Discharges

Liquid Discharges  
ALARA Guide Summary Report for All Areas  
March 2022

Area	YTD TED (mrem)	Projected Annual TED (mrem/yr)	Alara Guide (mrem/yr)	YTD % of Guide	Projected % of Guide
A-Area	1.95E-06	7.82E-06	6.00E-05	3.3%	13.0%
F-Area	2.58E-05	1.03E-04	5.20E-04	5.0%	19.8%
F-Tk Frm	5.46E-05	2.18E-04	2.00E-03	2.7%	10.9%
G-Area	4.37E-05	1.75E-04	5.07E-02	0.1%	0.3%
H-Area	6.31E-04	2.52E-03	5.20E-04	121%	485.6%
H-ETP	1.50E-04	6.00E-04	1.00E-02	1.5%	6.0%
H-Tk Frm	8.71E-05	3.49E-04	8.65E-03	1.0%	4.0%
K-Area	2.56E-05	1.02E-04	1.71E-05	149%	598.0%
L-Area	0.00E+00	0.00E+00	7.08E-05	0.0%	0.0%
S-Area	8.78E-07	3.51E-06	1.65E-04	0.5%	2.1%
Tritium	1.88E-05	7.52E-05	2.71E-04	6.9%	27.7%
Site Totals:	1.04E-03	4.16E-03	7.30E-02	1.4%	5.7%

## 2022 H Area Environmental ALARA Guide Increase Request

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- H-Area Liquid ALARA Guide
  - Radiological results for the March 2022 report currently show H-Area Total Effective Dose at  $2.52\text{E}-03$  mrem (121% of the ALARA Guide).
  - The FM-1C March composite was elevated in gross beta, Sr-90 and slightly above detection limit for Cs-137.
  - The releases are due to the upstream process control location HP-50 (P-12).
  - The release has been controlled and investigation for identification of the source is ongoing.
  - These elevations are below the DOE Order 458.1 Derived Concentration Standard (DCS) Compliance level that requires formal Best Available Technology evaluations.
  - An E-ALARA exceedance investigation will be documented in the April Monthly Radiological Releases Report.
  - An increase to the 2022 H-Area Environmental ALARA Guide for liquid discharges is requested for approval from  $5.20\text{E}-04$  mrem to  $5.20\text{E}-03$  mrem.



## 2022 K-Area Environmental ALARA Guide- Liquid Discharges

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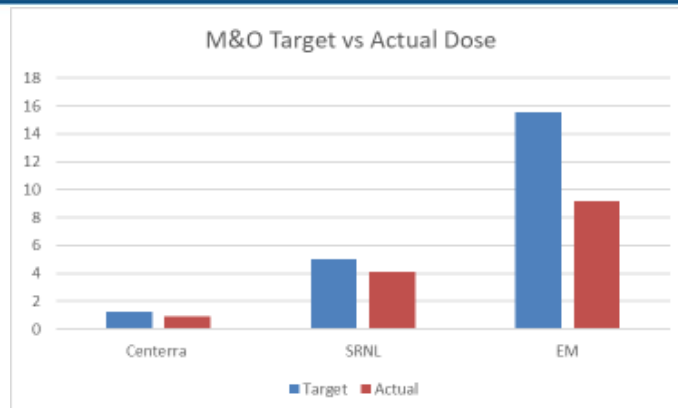
- Radiological results for the March 2022 report currently show K-Area liquid Total Effective Dose at  $1.02\text{E}-04$  mrem (149% of the ALARA Guide).
- These elevations are below the DOE Order 458.1 Derived Concentration Standard (DCS) Compliance level that requires formal Best Available Technology evaluations.
- The cause to the K -Area liquid ALARA guide exceedance is detectable levels of Sr -89/90 following a significant rain event.
- An exceedance investigation is ongoing and ALARA Guide increase will be proposed prior to the issuance of the April report.



## 2022 Environmental ALARA Guides Status- Airborne Emissions

Airborne Emissions ALARA Guide Summary Report for All Areas March 2022					
Area	YTD TED (mrem)	Projected Annual TED (mrem/yr)	Alara Guide (mrem/yr)	YTD % of Guide	Projected % of Guide
A-Area	0.00E+00	0.00E+00	1.70E-03	0.0%	0.0%
C-Area	7.14E-07	2.86E-06	2.50E-04	0.3%	1.1%
F-Area	4.93E-05	1.97E-04	1.29E-03	3.8%	15.3%
H-Area	6.74E-06	2.70E-05	4.96E-03	0.1%	0.5%
H-ETP	0.00E+00	0.00E+00	1.00E-07	0.0%	0.0%
H-Tk Frm	1.63E-09	6.53E-09	1.00E-06	0.2%	0.7%
J-Area	0.00E+00	0.00E+00	1.00E-06	0.0%	0.0%
K-Area	1.50E-05	5.99E-05	4.05E-03	0.4%	1.5%
L-Area	1.68E-05	6.73E-05	4.75E-03	0.4%	1.4%
S-Area	2.54E-07	1.02E-06	1.10E-04	0.2%	0.9%
Tritium	5.12E-03	2.05E-02	1.08E-01	4.7%	19.0%
Z-Area	4.13E-09	1.65E-08	5.00E-06	0.1%	0.3%
Site Totals:	5.21E-03	2.08E-02	1.25E-01	4.2%	16.7%

## M&O Dose vs Goal



Title	Target*	Actual*	Percent
Centerra	1.25	0.868	-30.56
SRNL	5	4.103	-17.94
EM	15.52	9.133	-41.15

\*Dose(Rem)

## LWO Dose vs Goal



Title	Qtr 1*
LWO Target	18.115
LWO Actual	16.078
LWO Percent	-11.44

\*Dose(Rem)

## Maximum Individual Dose

Title	*YTD	Facility
EM	0.168	NMM
LWO	0.130	SSS
SRNL	0.091	
Centerra	0.040	

\*Dose (Rem)



## Maximum Extremity

Title	CY22*
EM Maximum Extremity Dose	2.980 (NMM)
LWO Maximum Extremity Dose	2.091 (SSS)

\*Dose(Rem)

## Radiological Events

Title	QTR 1	Event
M&O ORPS PerCon	0	
M&O Non ORPS Percon	0	
M&O ORPS Rad Mat	1	Contaminated Water Identified in 221-H Sec. 9 Personnel Tunnel
M&O Non ORPS Rad Mat	0	
LWO ORPS PerCon	0	
LWO Non ORPS PerCon	1	Lab Tech Argos PCM Alarm on 221-S Mezzanine
LWO ORPS Rad Mat	0	
LWO Non ORPS Rad Mat	0	

## Intakes

Title	CY22
M&O > 500 mrem	0
M&O > 100 mrem	0
LWO > 500 mrem	0
LWO > 100 mrem	0

## +/- 25 %

Facility	*Target	*Actual	Percent
CLB	1	0.454	-53.4
FCA	0.075	0.022	-70.67
INF	1	0.737	-26.3
LLL	0.75	0.388	-48.27
KAC	9.2	3.950	-57.07
Centerra	1.25	0.868	-30.56

\*Dose(Rem)

# SITE ALARA COMMITTEE & CHANGE CONTROL BOARD

## ATTENDANCE ROSTER

Meeting Date: 5/16/2022Quarter/Year: 1st Qtr 2022

<u>✓</u> <u>✓</u>	<u>Chair</u> <b>Dennis Carr</b> <b>Doug Bumgardner (Vice Chair)</b>	<u>✓</u>	<u>Alternate</u> <b>Janice Lawson</b> <b>Joel Cantrell</b>
<u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u>	<u>SAC Voting Member</u>  <b>Kent Williams (Ex. Secretary)</b> <b>Richard Sprague (ESH&amp;Q)</b> <b>Deborah Solomon (SRTE)</b> <b>Verne Mooneyhan (SWM/TRU)</b> <b>Matt Arnold (NMD)</b> <b>Lee Sims (NMSP)</b> <b>Geoffrey Smoland (SRNL)</b> <b>Doug Bumgardner (WT)</b> <b>Lisa Amidon (TF)</b> <b>Elester Patten</b> <b>John Gall (LWO RPD)</b> <b>Tim West (EC&amp;ACP)</b>	<u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u> <u>✓</u>	<u>Alternate</u>  <b>Roy Windham</b> <b>Mary Flora</b> <b>Ruby Parks</b> <b>Robert Minnick</b> <b>Scott Craft</b> <b>Neil McIntosh</b> <b>Kevin Webster</b>   <b>Carol Hunter</b>

**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)

Diana Jannings	Wendy Furtick
Page Courtney	Eric Doman
Lillie Gordon	Joy Epps
Robin Farmer	Terry Pifer
Todd Brantley	Matthew Baker
Teresa Eddy	David Roberts
Wayne Robb	Walker Gaddy
Pamela Powell	Cacey Williams
Kristin Brant	Brittany Owensby
Ethan Vanfossen	Evan Croy
Greg Burbage	Robbie Black
Robert Entzminger	Rochelle Beasley
Johnny Lott	Cathy Torres
Robert Gunby	Ronald Sykes
Paul Bordon	

Full Name	User Action	Timestamp
Diana Jennings	Joined	5/16/2022, 12:48:20 F
+1 803-208-8859	Joined before	5/16/2022, 12:48:20 F
Page Courtney	Joined before	5/16/2022, 12:48:20 F
Lillie Gordon	Joined before	5/16/2022, 12:48:20 F
Robin Farmer	Joined before	5/16/2022, 12:48:20 F
Todd Brantley	Joined before	5/16/2022, 12:48:20 F
Todd Brantley	Left	5/16/2022, 12:49:54 F
Todd Brantley	Joined	5/16/2022, 12:51:24 F
Todd Brantley	Left	5/16/2022, 1:36:19 P
+1 803-557-3267	Joined	5/16/2022, 12:49:01 F
+1 803-952-8269	Joined	5/16/2022, 12:49:27 F
+1 803-952-8253	Joined	5/16/2022, 12:49:47 F
+1 803-952-8253	Left	5/16/2022, 1:36:21 P
Teresa Eddy	Joined	5/16/2022, 12:49:54 F
Teresa Eddy	Left	5/16/2022, 1:36:19 P
Wayne Bobo	Joined	5/16/2022, 12:49:58 F
Wayne Bobo	Left	5/16/2022, 1:33:53 P
Carol Hunter (Guest)	Joined	5/16/2022, 12:50:44 F
Pamela02 Powell	Joined	5/16/2022, 12:51:05 F
Debd Solomon	Joined	5/16/2022, 12:51:19 F
+1 803-208-8098	Joined	5/16/2022, 12:51:34 F
+1 803-208-8510	Joined	5/16/2022, 12:51:47 F
+1 803-208-8510	Left	5/16/2022, 1:33:32 P
Kristin Brant	Joined	5/16/2022, 12:52:31 F
Scott Craft	Joined	5/16/2022, 12:52:49 F
VANFOSSEN, ETHAN	Joined	5/16/2022, 12:54:31 F
Greg Burbage	Joined	5/16/2022, 12:54:34 F
Robert Entzminger	Joined	5/16/2022, 12:54:45 F
Robert Entzminger	Left	5/16/2022, 1:36:20 P
John Gall	Joined	5/16/2022, 12:54:54 F
Johnny Lott	Joined	5/16/2022, 12:55:34 F
Timothy02 West	Joined	5/16/2022, 12:55:47 F
Robert Gunby	Joined	5/16/2022, 12:55:56 F
Robert Gunby	Left	5/16/2022, 1:36:19 P
Wendy Furtick	Joined	5/16/2022, 12:56:10 F
Elester Patten	Joined	5/16/2022, 12:56:15 F
+1 803-208-2630	Joined	5/16/2022, 12:56:16 F
Eric Doman	Joined	5/16/2022, 12:56:25 F
+1 803-952-8151	Joined	5/16/2022, 12:56:26 F
Joy Epps	Joined	5/16/2022, 12:56:29 F
Terry Pifer	Joined	5/16/2022, 12:56:32 F
Roy Windham	Joined	5/16/2022, 12:57:22 F
Joel Cantrell	Joined	5/16/2022, 12:57:30 F
BAKER, MATTHEW R	Joined	5/16/2022, 12:57:42 F
BAKER, MATTHEW R	Left	5/16/2022, 1:34:52 P
Dennis Carr	Joined	5/16/2022, 12:57:56 F
Dennis Carr	Left	5/16/2022, 12:58:10 F
Dennis Carr	Joined	5/16/2022, 1:01:23 P
Dennis Carr	Left	5/16/2022, 1:36:19 P
+1 803-557-6220	Joined	5/16/2022, 12:58:16 F
+1 803-646-1045	Joined	5/16/2022, 12:58:17 F
Verne Mooneyhan	Joined	5/16/2022, 12:58:20 F
Verne Mooneyhan	Left	5/16/2022, 1:36:12 P
David-W Roberts	Joined	5/16/2022, 12:58:41 F
Walker Gaddy	Joined	5/16/2022, 12:58:56 F
Walker Gaddy	Left	5/16/2022, 1:36:19 P
Casey Williams	Joined	5/16/2022, 12:59:04 F
+1 803-557-6033	Joined	5/16/2022, 12:59:21 F
Evan Croy	Joined	5/16/2022, 12:59:34 F
Brittany Owensby	Joined	5/16/2022, 12:59:54 F
Brittany Owensby	Left	5/16/2022, 1:36:21 P
Robbie Black	Joined	5/16/2022, 1:00:39 P
Rochelle Beasley	Joined	5/16/2022, 1:00:52 P
Douglas Bumgardner	Joined	5/16/2022, 1:01:02 P
Cathy Torres	Joined	5/16/2022, 1:01:25 P
Cathy Torres	Left	5/16/2022, 1:01:48 P
Cathy Torres	Joined	5/16/2022, 1:02:07 P
Ronald Sykes	Joined	5/16/2022, 1:02:30 P
Ronald Sykes	Left	5/16/2022, 1:36:19 P
+1 803-208-1887	Joined	5/16/2022, 1:02:45 P
+1 803-208-1887	Left	5/16/2022, 1:03:35 P
Geoffrey Smoland	Joined	5/16/2022, 1:04:06 P
+1 803-761-4006	Joined	5/16/2022, 1:04:20 P
Paul Bordon	Joined	5/16/2022, 1:06:33 P