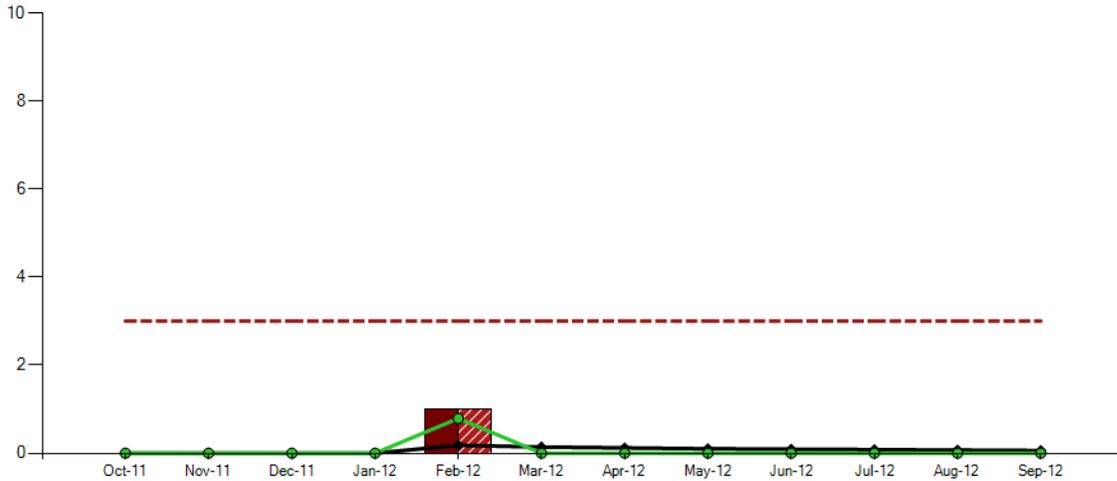
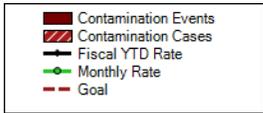


**LWO RADIOLOGICAL SAFETY PERFORMANCE**  
**Reportable Personnel Contamination Events**  
**Events**

Through September 30, 2012



Title	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Contamination Events	0	0	0	0	1	0	0	0	0	0	0	0
Contamination Events (FY)	0	0	0	0	1	1	1	1	1	1	1	1
Contamination Cases	0	0	0	0	1	0	0	0	0	0	0	0
LWO Hours (Month)	429,301	414,728	380,299	402,301	409,764	454,853	418,990	456,920	424,447	401,223	444,142	396,022
LWO Rad Worker Hours (Month)	212,698	219,562	216,632	239,424	253,680	294,645	280,626	313,509	299,269	279,771	307,468	286,360
LWO Rad Worker Hours (FY)	212,698	432,260	648,892	888,316	1,141,996	1,436,641	1,717,267	2,030,776	2,330,044	2,609,815	2,917,283	3,203,643
LWO Rad Workers (Month)	1253	1305	1362	1395	1453	1532	1584	1633	1652	1624	1586	1666
LWO Workers	2529	2465	2391	2344	2347	2365	2365	2380	2343	2329	2291	2304
Fiscal YTD Rate	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Rate	0	0	0	0	0.79	0	0	0	0	0	0	0
Goal	3	3	3	3	3	3	3	3	3	3	3	3
Score: FYTD Rate												

**Analysis**

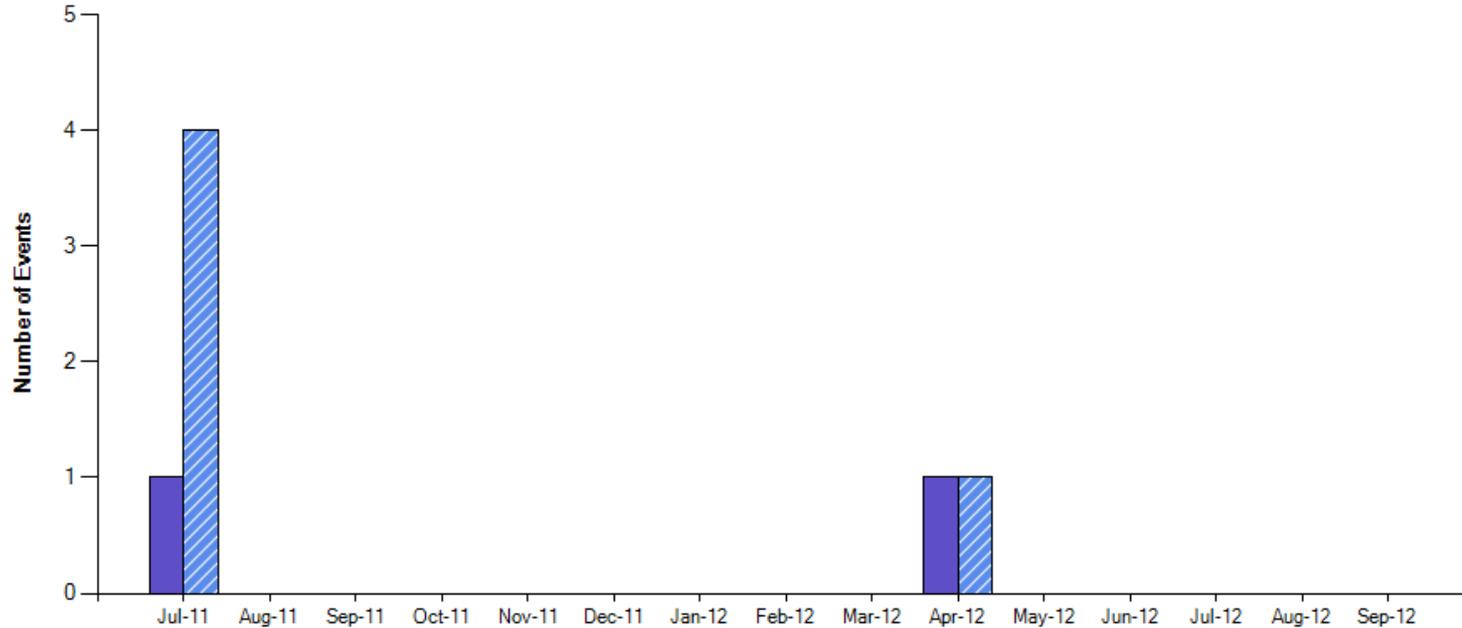
**Analysis:** Excellent **COLOR:** Blue

**Action:** SRR continues to closely monitor contamination events, even those minor errors that are below the ORPS reporting thresholds. The minor errors are used as a leading indicator that may signal adverse trends that could lead to an increase in the number of reportable events. For each event, corrective actions are taken and documented in STAR and a review is performed for any commonalities that may exist.

Metric Details	
Metric Title	ORPS PerCon Events
Metric Owner/Alternate Owner	Jim Wilson 8-3354
Metric SME/POC	Carol Hunter 8-0231/Ellen Parrish 2-5825
Metric DOE PI Owner	Chuck Radford 2-8595
Metric Functional Group	RPD, DOE, ESH
Metric Description	Measures ORPS reportable PerCon events 6D(3) & binned as FA 11.10.95
Metric Definition	The Government FYTD rate is obtained by multiplying the number of events by 200,000 hrs & dividing by the number of applicable RWP hrs.
Metric Value	Goal is measured in FYTD Rate
Metric Reporting Frequency	Monthly

Metric Requirements Drivers	5Q, SCD-6, 5Q1.1-505, 1-01 4.4, DOE G 441.1-1C
Data Source(s):	STAR (events) & Hummingbird Database (RWP hrs)
Grade Criteria	Based on ORPS contamination events & RWP hours.
<b>BLUE</b>	$\leq 1.5$
<b>VIOLET</b>	$> 1.5 - < 2.5$
<b>GREEN</b>	$\geq 2.5 - \leq 5.0$
<b>YELLOW</b>	$> 5.0 - \leq 7.5$
<b>RED</b>	$> 7.5$
Data Entry/Verification/Validation	Automatic pulls from STAR & Hummingbird Database
Data Inquiry	Please report any Scorecard technical issue to Raine Weimortz or Steve Rich or radiological related questions to Ellen Parrish

**LWO RADIOLOGICAL SAFETY PERFORMANCE**  
**Non-ORPS Reportable Personnel Contamination Errors/Cases**  
 Through September 30, 2012



Title	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Non-ORPS Reportable Cont. Errors	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Non-ORPS Reportable Cont. Cases	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0

**Definition**

This chart reflects non-ORPS reportable personnel contamination errors/cases per month >500 dpm alpha or >5000 dpm beta-gamma. The non-ORPS errors represent the number of events per month and the non-ORPS cases represent the number of personnel involved in the event. Oct 2010 begins the new Fiscal Year

**Action:** SRR continues to closely monitor contamination events, even those minor errors that are below the ORPS reporting thresholds. The minor errors are used as a leading indicator that may signal adverse trends that could lead to an increase in the number of reportable events. For each event, corrective actions are taken and documented in STAR and a review is performed for any commonalities that may exist.

## Metric Details

Metric Title	Non-ORPS PerCon Events/Cases
Metric Owner/Alternate Owner	Jim Wilson 8-3354
Metric SME/POC	Carol Hunter 8-0231/Ellen Parrish 2-5825
Metric DOE PI Owner	Chuck Radford 2-8595
Metric Functional Group	RPD, DOE, ESH
Metric Description	Non-ORPS PerCon errors 6D(4) & binned as FA 11.10.94 and the number of workers who were contaminated
Metric Definition	Non-ORPS PerCon errors are leading indicators for ORPS events.
Metric Reporting Frequency	Monthly
Metric Requirements Drivers	5Q, SCD-6, 5Q1.1-505, 1-01 4.4
Data Source(s):	STAR (events)
Data Entry/Verification/Validation	Automatic pull from STAR, PerCon cases entered by Site ALARA Coordinator
Data Inquiry	Please report any Scorecard technical issue to <a href="#">Raine Weimortz</a> or <a href="#">Steve Rich</a> or radiological related questions to <a href="#">Ellen Parrish</a>



## Analysis

**Analysis:** Excellent **Color:** Blue

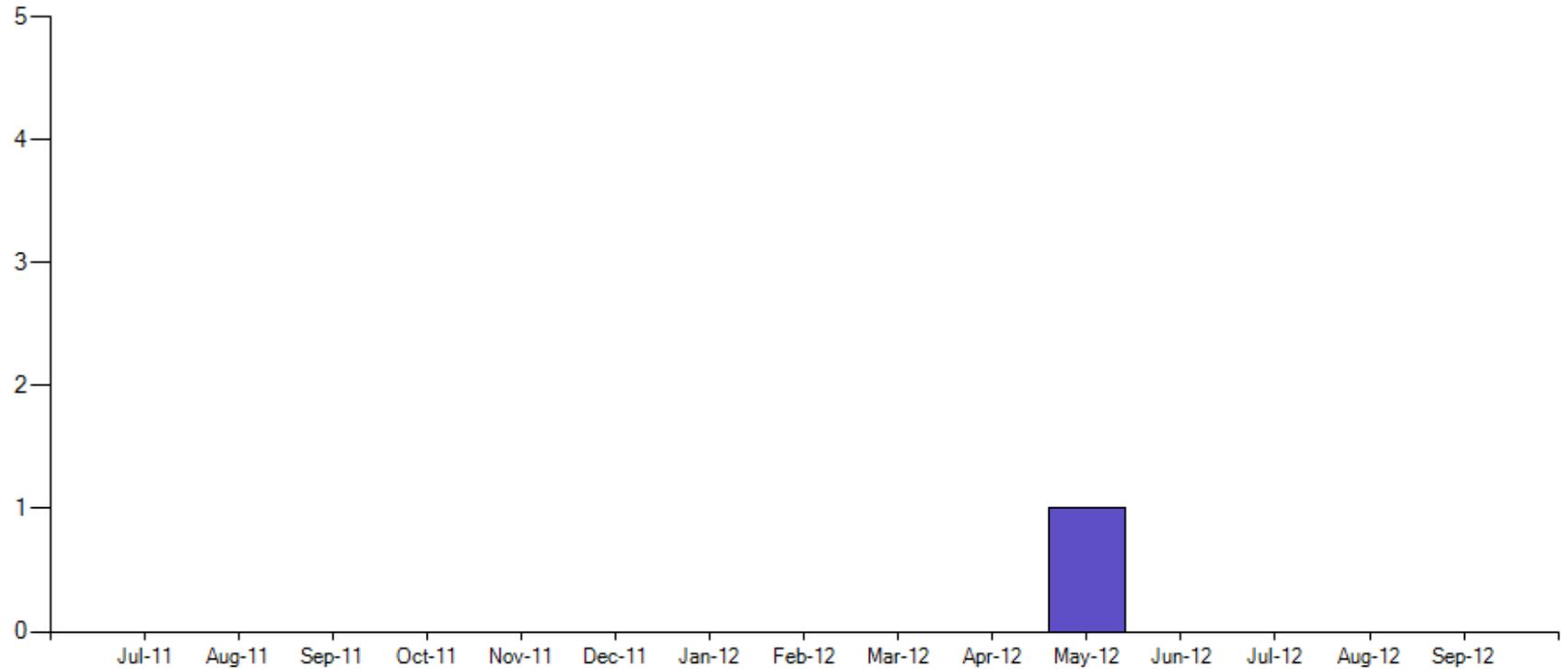
**ORPS Event:** None

## Action

SRR continues to use engineering controls to contain contamination at the source and perform fact finding meetings of spread of contamination or radioactive material.

<b>Metric Details</b>	
Metric Title	Number of Rad Material ORPS Events
Metric Owner/Alternate Owner:	Jim Wilson 8-3354
Metric SME/POC	Carol Hunter 8-0231/Ellen Parrish 2-5825
Metric DOE PI Owner	Chuck Radford 2-8595
Metric Functional Group	RPD, DOE, ESH
Metric Description	Measures ORPS reportable Rad Material events 6B(1-4) & binned as FA 11.10.91 or 11.10.93
Metric Definition	This metric is a lagging indicator for occurrences of radioactive material or spread of contamination found outside of radiological areas.
Metric Value	Measure is in number of events
Metric Reporting Frequency	Monthly
Metric Requirements Drivers	5Q, SCD-6, 5Q1.1-505, 1-01 4.4, DOE G 441.1-1C
Data Source(s)	STAR
Grade Criteria	Based on Offsite Contamination Events
<b>BLUE</b>	< 1 per month Onsite, = 0 per month Offsite
<b>VIOLET</b>	= 1 per month
<b>GREEN</b>	= 2 per month
<b>YELLOW</b>	= 3 per month
<b>RED</b>	> 3 per month or 1 offsite event
Data Entry/Verification/Validation	Automatic pull from STAR & offsite event data entry by Site ALARA Coordinator
Data Inquiry	Please report any Scorecard technical issue to <a href="#">Raine Weimortz</a> or <a href="#">Steve Rich</a> or radiological related questions to <a href="#">Ellen Parrish</a>

**LWO Non-ORPS Radioactive  
Material/Contamination  
LWO  
Through September 30, 2012**



Title	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Non-ORPS Material Issues	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Offsite Discovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Action:** SRR continues to use engineering controls to contain contamination at the source and perform fact finding meetings of spread of contamination or radioactive material.



Metric Details	
Metric Title	Non-ORPS Rad Material
Metric Owner/Alternate Owner	Jim Wilson 8-3354
Metric SME/POC	Carol Hunter 8-0231/Ellen Parrish 2-5825
Metric DOE PI Owner	Chuck Radford 2-8595
Metric Functional Group	RPD, DOE, ESH
Metric Description	Tracks Non-ORPS reportable Rad Material errors 6B(5) & binned as FA 11.10.92. Off-Site events will be covered under 6B1 criteria.
Metric Definition	Rradioactive material or spread of contamination found outside of radiological areas (includes RBAs not contiguous with a Contamination Area, Clean Areas, and Controlled Areas). Area Non-ORPS errors are leading indicators for Area ORPS events.
Metric Reporting Frequency	Monthly
Metric Requirements Drivers	5Q, SCD-6, 5Q1.1-505, 1-01 4.4
Data Source(s)	STAR
Data Entry/Verification/Validation	Automatic pull from STAR & offsite event data entry by Site ALARA Coordinator
Data Inquiry	Please report any Scorecard technical issue to Raine Weimortz or Steve Rich or radiological related questions to Ellen Parrish



% of Goal (Month)	0%	0%	0%	0%	149%	128%	27%	24%	126%	0%	0%	0%
Score (Month)	Blue	Blue	Blue	Blue	Red	Red	Purple	Purple	Red	Purple	Purple	Blue

**Definition**

Radiological Contamination events are those that impact personnel or equipment. Each of these required reporting, tracking, evaluation and resolution due to the serious nature of such contamination. Rad Con events are scored based on assigned severity weighting:

- STAR CAT 1,2,R = 10 pts
- STAR CAT 3 /4 = 5 pts
- Non ORPS = 1 pt

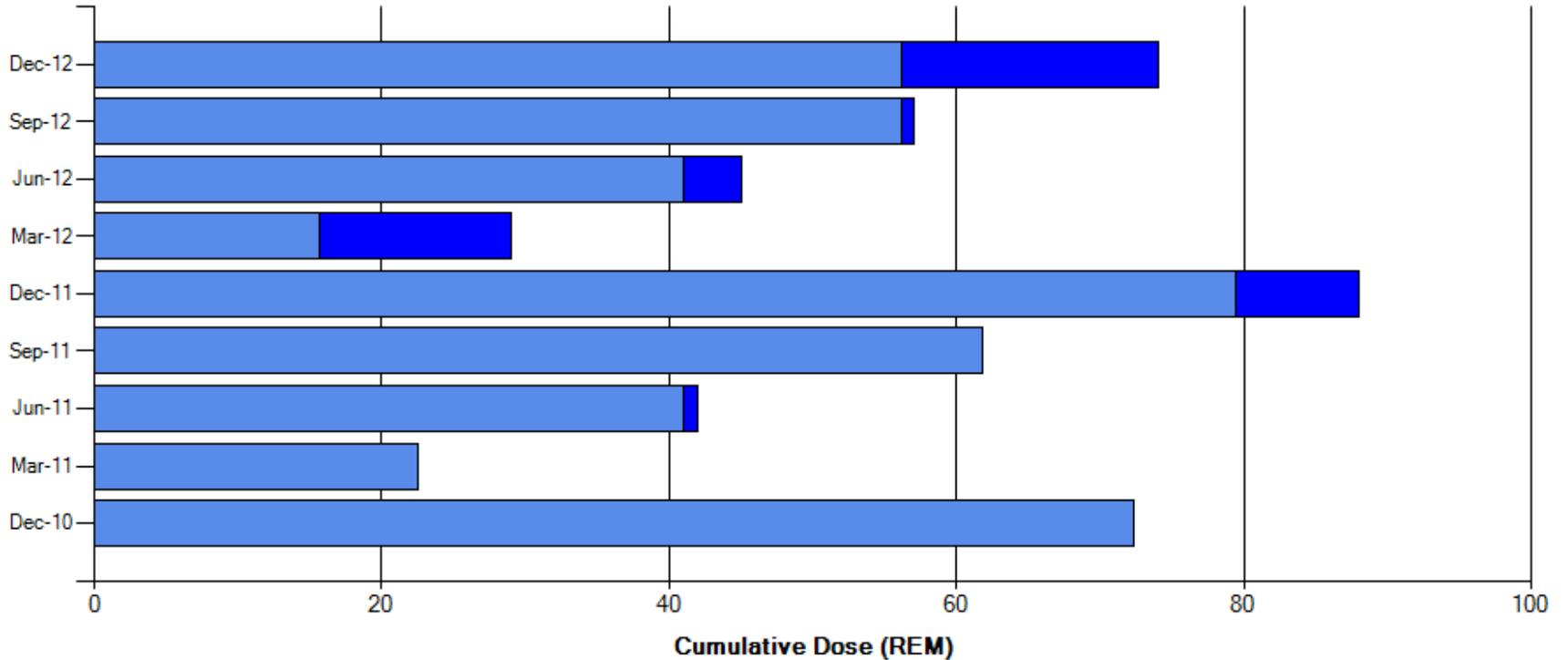
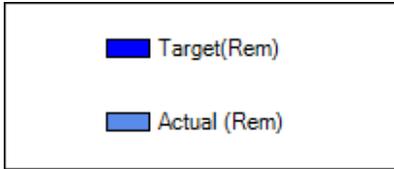
ORPS and Non-ORPS data for this metric is pulled from the STAR database. The database manager is Chip Patterson, in case of data integrity concerns.

This metric measures the monthly Rad Con Severity Index. The monthly Index is calculated by multiplying the monthly Rad Con Points by 200,000 hours and then dividing by the total monthly hours. The FY Index is determined by multiplying the number of Rad Con points by 200,000 hours and then dividing it by the total FY hours.

SRR calculated the baseline on the 2008 SITE ORPS & Non-ORPS events for PerCons, Area Contamination events, and dose related events. The monthly hours for FY10 and FY11 were set based on the number of hours workers signed in on RWPs that tracked time. The FY12 monthly hours will be calculated each month from established queries using various databases or edited info inputted to determine the number of radiological worker hours.

The Rad Con severity index goal established for FY12 is 2.648.

**LWO Cumulative Dose vs. Goal**  
**Radiological Protection (Liquid Waste)**  
**Through October 16, 2012**



Title	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Sep-12	Dec-12
Target (Rem)	69	18	42	56	88	29	45	57	74
Actual (Rem)	72.314	22.511	40.995	61.802	79.495	15.64	41.063	56.229	56.236
Internal Non-Tritium Dose	0.05	0.003	0.003	0.019	0.019	0.009	0.009	0.009	0.009
Internal Tritium Dose	0	0	0	0	0	0	0	0	0
Total Dose	72.364	22.514	40.998	61.821	79.514	15.649	41.072	56.238	56.245
% of Target	4.8%	25.06%	2.39%	10.36%	9.66%	46.07%	8.75%	1.35%	

Score

%

%

%

%

%

%

%

%

## Metric Details

Metric Title	Cumulative Dose vs. Goal
Metric Owner/Alternate Owner	Jim Wilson 8-3354
Metric SME/POC	Carol Hunter 8-0231/Ellen Parrish 2-5825
Metric DOE PI Owner	Chuck Radford 2-8595
Metric Functional Group	RPD, DOE, ESH
Metric Description	Measures Cumulative Dose for each quarter
Metric Definition	This metric represents the LWO actual Cumulative dose and the target dose received for each quarter.
Metric Value	Measure is in percent
Metric Reporting Frequency	Quarterly
Metric Requirements Drivers	5Q, SCD-6, 5Q1.1-505, 1-01 4.4, POMC
Data Source(s):	Hummingbird Database
Grade Criteria	Percent of Target
<b>BLUE</b>	+/- ≤ 12.5 %
<b>VIOLET</b>	+/- > 12.5 % but < 25 %
<b>GREEN</b>	+/- > 25 % but < 37 %
<b>YELLOW</b>	+/- > 37 % but < 50 %
<b>RED</b>	+/- > 50%
Data Entry/Verification/Validation	Automatic pulls from Hummingbird Database
Data Inquiry	Please report any Scorecard technical issue to <a href="#">Raine Weimortz</a> or <a href="#">Steve Rich</a> or radiological related questions to <a href="#">Ellen Parrish</a>

Internal dose assignments are not included in this chart. See the Site Cumulative Dose vs. Goal chart for the internal dose assignments.

Note: The dose represented in this chart is updated every 24 hours. Dose summaries sent out by HPS are a "snap shot in time" for the date and time that it is actually pulled from the Data Warehouse.

The Total Dose includes the Internal Non-Tritium and Internal Tritium Doses. WSI, DOE, and all SUBs will not be included on this chart. Dose for these companies will be included in the dose on the EM Cumulative Dose vs. Goal Chart. Dose assigned to an SRR employee that work for any of these companies will be listed in this section.