



Department of Energy

Washington, DC 20585

January 15, 2020

The Honorable Bruce Hamilton
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue NW, Suite 700
Washington, D.C. 20004

Dear Chairman Hamilton:

Consistent with the Board's letter dated February 26, 2016, attached please find the Fiscal Year 2019 Annual Metrics Report on the nuclear criticality safety criteria. This metrics report includes a series of tables and satisfies the annual reporting requirement established for closure of Defense Nuclear Facilities Safety Board Recommendation 97-2, *Continuation of Criticality Safety at Defense Nuclear Facilities in the Department of Energy (DOE) Complex*.

If you have any specific questions regarding the report, please contact Kevin Hahn, National Nuclear Security Administration, who has overall responsibility for the consolidated report, at (505) 845-4106. Robert Wilson, Office of Environmental Management (EM), (303) 236-3666, is responsible for the EM information; and Joanna Serra, Office of Science (SC), (301) 903-6136, is responsible for the SC information.

Sincerely,

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2019
ANNUAL METRICS
REPORT

To
THE DEFENSE NUCLEAR
FACILITIES SAFETY BOARD

January, 2020

NUCLEAR CRITICALITY
SAFETY PROGRAMS



National Nuclear Security Administration
United States Department of Energy
Washington, DC 20585

Purpose

A Defense Nuclear Facilities Safety Board (DNFSB) letter dated February 26, 2016, requested that the Department of Energy (DOE) provide an annual metrics table on the nuclear criticality safety criteria listed below in its Annual Report on Nuclear Criticality Safety (NCS) Programs. The Board's letter modified the annual reporting requirement established for closure of DNFSB Recommendation 97-2, *Continuation of Criticality Safety at Defense Nuclear Facilities in the Department of Energy (DOE) Complex*, which requires DOE to provide a report and briefing on the requested subject areas for its various NCS programs.

The points-of-contact for this report are Kevin Hahn, National Nuclear Security Administration (NNSA), 505-845-4106, Dr. Robert Wilson, Office of Environmental Management (EM), 303-236-3666, and Joanna Serra, Office of Science (SC), 301-903-6136.

The requested metrics include:

1. DOE's overall evaluation of the contractors' performance in the functional area of criticality safety, consistent with DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy*;

- This qualitative grade is determined by the Field Office.
- Grading is based on the following scheme:

Green	Meets or exceeds expectations
Yellow	Adequate but needs improvement
Red	Does not meet expectations

The overall performance of the site is broken into program health and operational implementation.

- The program health grade is based on items such as contractor staffing levels, quality, timeliness and backlog of NCS Evaluations, adequate funding, NCS procedures and policies...etc.
 - The operational implementation grade is based on items such as those events and issues affecting the handling and processing of nuclear materials...i.e., infractions, conduct of operations, implementation of NCS in operating procedures... etc.
- 2. The number of criticality safety infractions in each severity level, per site-specific criteria;**
- 3. The number of identified non-compliances with DOE Order 420.1, *Facility Safety*, and the American National Standards Institute/American Nuclear Society-8 series of**

criticality safety standards. Includes the number of contractor-identified non-compliances and the number identified by external parties;

4. The number of contractor and federal criticality safety assessments completed including the total number of findings and opportunities for improvement from these assessments;

- The number of assessments focused on criticality safety include:

For Contractors: Management self-assessments, criticality safety committee reviews, operational readiness assessments, and biennial/triennial external reviews but does not include regularly scheduled operational reviews.

For Federal: DOE Headquarters, field office, and Office of Enterprise assessments; Criticality Safety Support Group's (CSSG) reviews, federal readiness assessments, and "For-cause" assessments but does not include day-to-day oversight conducted by facility representatives.

- Findings: Total number of assessment observations that generate a corrective action plan.
- Opportunities for Improvement (OFIs): Total number of all other assessment observations that were not findings.

Note: Information from this metric may overlap the information provided for the third metric.

5. Current contractor and federal criticality safety staffing levels, including the average years of experience in criticality safety, number of qualified staff, number in training, number of staff lost, number of staff hired in the previous year.

- The number of qualified NCS engineers reflects the number of staff qualified to independently perform criticality safety work consistent with site specific criteria.
- The “target” metric indicates whether the number of qualified NCS staff is sufficient to meet programmatic needs.
- The “experience” metric is an average of the years of experience in criticality safety for the qualified staff at the time of reporting.

The following tables represent the requested data for DOE sites for FY 19. The overall performance grades and metrics have been provided by each site's Field Office.

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Lawrence Livermore National Laboratory (LLNL)

1. LLNL Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

NA-512, Office of Nuclear Safety Services, provided temporary oversight during FY19.

2. LLNL Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4
FY 17	0	0	0	2
FY 18	0	0	0	1
FY 19	0	0	0	4

3. LLNL Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. LLNL Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	1	0	7	1	0	1
FY 18	1	0	1	2	0	0
FY 19	0	0	0	1	0	0

5. LLNL Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	1	2	1	19
FY 18	10	Yes	3	0	3	13
FY 19	10	Yes	3	0	3	15

6. LLNL Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	1	Yes	0	0	0	18
FY 18	0	No	0	1	0	N/A
FY 19	0	No	1	0	0	N/A

Nevada National Security Site (NNSS)

1. NNSS Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

NNSS reporting only includes data from the M&O Contractor. Work done at NNSS under other programs is reported in the respective section.

2. NNSS Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	1	0
FY 18	0	0	0	0	0
FY 19	0	0	0	0	0

3. NNSS Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. NNSS Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	2	2	7	2	2	1
FY 18	3	1	3	1	1	2
FY 19	2	2	2	1	0	3

5. NNSS Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	1	1	1	17
FY 18	3	Yes	1	0	1	23
FY 19	3	Yes	0	1	1	18

6. NNSS Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	1	Yes	1	0	0	11
FY 18	2	Yes	0	0	0	14
FY 19	2	Yes	0	0	0	16

Los Alamos National Laboratory (LANL)

1. LANL Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Red	Red
FY 18	Yellow	Yellow
FY 19	Yellow	Yellow

Comments:

LANL NCS Program improvements continue and the program is approaching full compliance. Deficiencies in legacy evaluations and program implementation remain a continuing challenge. The program is addressing these issues at an accelerated rate. Compensatory measures remain in place until improvements are complete (more restrictive limits from the ESS for firewater).

From FY17 to FY19, significant improvements include:

- > 40% increase in qualified analysts.
- Continuous increase in quality of CSEDs issued based on reduction in findings
 - FY16: 2 findings/CSED
 - FY17: < 1 finding/CSED
 - FY18: < 0.5 findings/CSED
 - FY19: < 0.25 findings/CSED
- > 15% increase in the quantity of CSEDs issued
- > 20% increase in analyst presence in the field
- 66 FMOs removed from noncompliant backlog in FY19 (exceeding fiscal year goals)

In FY19, Triad National Security, LLC (LANL M&O) also had two program non-compliances (NC) which were categorized as 1-NC. These two infractions were the result of fissile material placements where no CSED was approved. While the risk of criticality was low in each case, these events highlighted continued shortcomings in operational implementation maturity.

Triad has shown its commitment to understanding current issues, maintaining NCS Program improvement efforts, and accelerating such efforts using corporate resources.

2. LANL Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5	Program Non-Compliance
FY 17	0	0	3	6	22	0
FY 18	0	0	1	12	29	0
FY 19	0	0	1	16	27	2

3. LANL Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	31	0
FY 18	42	0
FY 19	46	0

4. LANL Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	5	5	7	3	1	0
FY 18	8	3	9	1	1	0
FY 19	7	3	23	1	0	0

5. LANL Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	9	No	12	5	6	6.25
FY 18	11	No	14	2	6	5.50
FY 19	13	No	12	4	4	6.15

6. LANL Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	1	No	0	0	0	11
FY 18	1	No	0	0	0	12
FY 19	1	No	1	0	1	13

Sandia National Laboratories (SNL)

1. SNL Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

The Program Health grade is green based on an SNL’s significant improvement since initiating a *Program Improvement Plan* started in FY16. Improvement is evidenced by being the first NNSA site to implement DOE O 420.1C CN2 with the completion of several programmatic documents. The result is that SNL supported activities outside SNL (SRS independent assessment, NA-50 Critical Experiment Design Team, LANL Training, University of New Mexico Cooperative Research and Development Agreement, and International Conference on Nuclear Criticality) and provided programmatic documents to PNNL and SRS to assist their programs. In FY19, SNL continued training for four staff to address the need for resources.

The Operational Implementation grade is green based on excellent support completing analyses for multiple locations. The number of infractions and non-compliances for a fifth year was low with two non-compliances. Self-assessments of facilities has improved and been on schedule using the new procedure for annual assessments.

2. SNL Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4
FY 17	0	0	0	0
FY 18	0	0	0	1
FY 19	0	0	0	0

3. SNL Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	1	0
FY 18	1	0
FY 19	2	0

4. SNL Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	9	0	11	4	0	5
FY 18	9	0	13	6	1	8
FY 19	12	0	15	4	0	2

5. SNL Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	6	Yes	6	0	0	18
FY 18	7	Yes	4	1	1	14
FY 19	7	Yes	4	0	0	15

6. SNL Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	1	Yes	0	0	0	12
FY 18	1	Yes	0	0	0	13
FY 19	1	Yes	0	0	0	14

Pantex

1. Pantex Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Yellow	Green
FY 19	Yellow	Green

Comments:

The Program Health grade reflects the combined performance of the contractor at Y-12, Pantex and Uranium Processing Facility (UPF). However, the Operational Implementation grade is specific to implementation at this site. See the Y-12 section for information on the Program Health grade.

The NNSA Production Office (NPO) has no NCS staff dedicated solely to Pantex or any specific location. Oversight is provided by periodic site visits and communication with Pantex NPO staff.

2. Pantex Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	0	0
FY 18	0	0	0	0	0
FY 19	0	0	0	0	0

3. Pantex Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. Pantex Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	4	0	3	1	1	0
FY 18	4	0	1	1	0	0
FY 19	4	0	2	0	0	0

5. Pantex Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	1	0	0	8.6
FY 18	5	Yes	0	1	0	8.3
FY 19	2*	Yes	0	1	0	5.5

*The two year requalification lapsed for two cross-qualified Y-12 engineers in 2019.

6. Pantex Federal Staffing

Note: Criticality Safety Federal oversight of Pantex, Y-12 and UPF is performed by the NPO.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	0	0	0	21
FY 18	2	Yes	1	1	1	11
FY 19	2	Yes	1	0	0	11.7

Y-12 National Security Site (Y-12)

1. Y-12 Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Yellow	Yellow
FY 19	Yellow	Yellow

Comments:

The Program Health grade reflects the combined performance of the contractor at Y-12, Pantex and UPF. However, the Operational Implementation grade is specific to implementation at this site.

Since the discoveries of unanalyzed uranium accumulation beginning in late 2017, the Y-12 Managing & Operating contractor, Consolidated Nuclear Security, LLC (CNS), has initiated comprehensive extent of condition (EOC) reviews and corrective actions. The EOC reviews identified areas needing improvement to preclude future accumulation events. Significant progress was made against these areas by the end of FY 2019, including updates to criticality safety evaluations (CSEs) and implementation of Inadvertent Accumulation Prevention Program (IAPP) recommendations. The plant is operating safely with all processes shown to be safely subcritical. However one process (ultrasonic chip cleaning) is undergoing readiness activities for resumption.

CNS also committed to a site-level nuclear material stewardship initiative. The objective of this activity is to reduce the risk of inadvertent accumulation. It is composed of multiple deliverables including a new health metric for criticality safety evaluations and action to identify improvements in operator and supervisor training. An NPO review of progress identified that work on two specific causal areas (i.e., operator training and process drift) had not progressed satisfactorily since the events occurred.

NCS engineer staffing increased ~42%. However, these were primarily new hires who will require training and qualification over the next two years to be fully productive. CNS indicated the combined contributions of fully qualified engineers and those in training is adequate to accomplish mission work and NCS program maintenance.

NPO has an open management-level issue on the rate and significance of NCS infractions and CNS is now performing causal analysis to further study the root causes of these issues. The plant is operating safely and one process (ultrasonic chip cleaning) is still undergoing readiness activities for resumption.

2. Y-12 Criticality Safety Infractions

Fiscal Year	Occurrences	Deficiencies	Minor Non-Compliances
FY 17	3	16	18
FY 18	4	27	39
FY 19	3	27	22

3. Y-12 Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. Y-12 Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	16	11	32	6	1	8
FY 18	4	3	1	6	2	8
FY 19	14	3	10	7	1	25

5. Y-12 Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	21	No	13	6	3	17.5
FY 18	22	No	9	6	7	14.8
FY 19	24	Yes	20	1	13	9.6

6. Y-12 Federal Staffing

Note: Criticality Safety Federal oversight of Pantex, Y-12 and UPF is performed by the NNSA Production Office (NPO).

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	0	0	0	21
FY 18	2	Yes	1	1	1	11
FY 19	2	Yes	1	0	0	11.7

Uranium Processing Facility (UPF)

1. UPF Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	N/A
FY 18	Yellow	N/A
FY 19	Yellow	N/A

Comments:

The Program Health grade reflects the combined performance of the contractor at Y-12, Pantex and UPF. However, the Operational Implementation grade is specific to implementation at this site. This facility is not operational, so the implementation grade is not applicable (N/A). See the Y-12 section for information on the Program Health grade.

NPO has no criticality safety staff dedicated solely to UPF or any individual location. Oversight is provided by walk-downs of construction and reviews of their NCS analysis and safety basis.

2. UPF Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

3. UPF Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	6	0	5	0	0	0
FY 18	5	0	2	0	0	0
FY 19	6	1	0	0	0	0

4. UPF Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	18	Yes	1	18	2	27
FY 18	23	Yes	1	1	6	22
FY 19	28	Yes	8	2	15	19

5. UPF Federal Staffing

Note: Criticality Safety Federal oversight of Pantex, Y-12 and UPF is performed by the NNSA Production Office (NPO).

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	0	0	0	21
FY 18	2	Yes	1	1	1	11
FY 19	2	Yes	1	0	0	11.7

Pacific Northwest National Laboratory (PNNL)

1. PNNL Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

In 2019, PNNL implemented Enhanced Reporting Criteria for Infractions. The result is lower significance level findings (i.e., lesser safety significance events such as missed qualification dates or labels that difficult to interpret) are now also tracked (and reported in Table 2) within the Criticality Safety program rather than using other operations program tracking.

The Qualified Contractor Staffing value in Table 5 does not include an additional three subcontracted staff members with an average of 20+ years of experience.

2. PNNL Criticality Safety Infractions

Fiscal Year	Violation	Infraction	Discrepancy	Deviation
FY 17	0	0	-	-
FY 18	0	0	-	-
FY 19	0	0	0	9

3. PNNL Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	1	0
FY 18	0	0
FY 19	0	0

4. PNNL Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	12	0	14	0	0	0
FY 18	11	5	5	1	1	0
FY 19	3	6	7	2	1	4

5. PNNL Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	4	0	3	12.4
FY 18	3	Yes	3	0	0	13.4
FY 19	3	Yes	2	1	1	21

6. PNNL Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	1	Yes	0	0	0	22
FY 18	1	Yes	0	0	0	23
FY 19	1	Yes	1	0	0	20

Richland CHPRC

1. CHPRC Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

There was minimal fissile material movement on the Hanford site this fiscal year. CHPRC took the opportunity to streamline the nuclear criticality safety program administrative activities to accommodate a current staffing.

2. CHPRC Criticality Safety Infractions

Fiscal Year	Criticality	Violation	Infraction	Discrepancy	Deviation
FY 17	0	0	0	0	2
FY 18	0	0	0	0	1
FY 19	0	0	0	0	0

3. CHPRC Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. CHPRC Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	3	2	4	7	0	3
FY 18	1	3	1	5	0	4
FY 19	1	1	2	2	0	1

5. CHPRC Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	0	0	0	23
FY 18	4	Yes	1	1	1	24
FY 19	4	Yes	1	1	0	30

6. CHPRC Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	1	Yes	0	0	0	5
FY 18	1	Yes	0	0	0	6
FY 19	1	Yes	0	0	0	7

River Protection WTP

1. WTP Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	N/A
FY 18	Green	N/A
FY 19	Green	N/A

Comments:

This facility is not operational, so the implementation grade is not applicable (N/A).
 Note that both qualified Federal criticality individuals are no longer in staff positions that perform criticality functions.

2. WTP Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

3. WTP Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	2	0	7	0	0	0
FY 18	1	0	0	1	0	0
FY 19	1	0	0	1	0	0

4. WTP Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	0	1	0	3
FY 18	2	Yes	1	1	0	5
FY 19	2	Yes	2	1	2	15

5. WTP Federal Staffing

Note: Federal oversight is combined for WTP and Tank Farms.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	2	0	0	8
FY 18	3	Yes	2	2	0	7
FY 19	2	Yes	2	1	0	7

River Protection Tank Farms

1. Tank Farms Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

Note that both qualified Federal criticality individuals are no longer in staff positions that perform criticality functions.

2. Tank Farms Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	0	0
FY 18	0	0	0	0	0
FY 19	0	0	0	0	0

3. Tank Farms Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	1	0
FY 18	0	0
FY 19	0	0

4. Tank Farms Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	1	1	7	2	0	0
FY 18	1	1	4	1	0	0
FY 19	1	0	4	1	0	0

5. Tank Farms Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	0	1	1	20
FY 18	3	Yes	0	0	0	21
FY 19	3	Yes	0	0	0	22

6. Tank Farms Federal Staffing

Note: Federal oversight is combined for WTP and Tank Farms.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	2	0	0	8
FY 18	3	Yes	2	2	0	7
FY 19	2	Yes	2	1	0	7

Idaho Flour Idaho LLC

1. Flour Idaho Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

No comments.

2. Flour Idaho Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	4	1	0
FY 18	0	0	4	3	0
FY 19	0	0	1	1	2

3. Flour Idaho Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. Flour Idaho Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	43	63	77	4	0	0
FY 18	41	58	67	4	0	0
FY 19	33	20	34	4	0	0

5. Flour Idaho Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	6	Yes	1	0	2	18
FY 18	5	Yes	0	2	1	20
FY 19	5	Yes	0	2	0	21

6. Flour Idaho Federal Staffing

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	Yes	0	0	0	8
FY 18	2	Yes	0	1	0	9
FY 19	2	Yes	0	0	0	10

Oak Ridge UCOR

1. UCOR Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

No comments.

2. UCOR Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	7	1
FY 18	0	0	0	8	2
FY 19	0	0	0	2	1

3. UCOR Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. UCOR Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	10	0	0	3	2	1
FY 18	13	0	0	4	0	0
FY 19	14	0	0	3	0	0

5. UCOR Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	0	1	2	21
FY 18	5	Yes	0	0	0	24
FY 19	4	Yes	1	1	1	20

6. UCOR Federal Staffing

Note: Federal oversight is combined for UCOR, Isotek Systems, LLC (Isotek), and Transuranic (TRU) Waste Processing Center (TWPC).

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	2	Yes	0	0	0	23
FY 18	3	Yes	1	0	0	25
FY 19	2	Yes	1	1	1	42

Oak Ridge Isotek

1. Isotek Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

No comments.

2. Isotek Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	0	5
FY 18	0	0	0	0	0
FY 19	0	0	0	0	0

3. Isotek Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. Isotek Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	2	0	17	4	0	0
FY 18	1	0	7	4	0	0
FY 19	1	0	2	2	0	0

5. Isotek Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	5	Yes	0	0	0	26
FY 18	4	Yes	1	1	1	27
FY 19	5	Yes	0	0	0	28

6. Isotek Federal Staffing

Note: Federal oversight is combined for UCOR, Isotek, and TWPC.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	2	Yes	0	0	0	23
FY 18	3	Yes	1	0	0	25
FY 19	2	Yes	1	1	1	42

Oak Ridge TWPC

1. TWPC Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

No comments.

2. TWPC Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	1	0
FY 18	0	0	0	2	0
FY 19	0	0	0	2	0

3. TWPC Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. TWPC Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	1	0	0	3	0	0
FY 18	1	0	2	3	0	0
FY 19	1	0	1	2	0	0

5. TWPC Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	4	Yes	0	1	1	28
FY 18	3	Yes	0	1	0	29
FY 19	3	Yes	0	0	0	30

6. TWPC Federal Staffing

Note: Federal oversight is combined for UCOR, Isotek, and TWPC.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	2	Yes	0	0	0	23
FY 18	3	Yes	1	0	0	25
FY 19	2	Yes	1	1	1	42

Savannah River SRNS

1. SRNS Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Green	Green
FY 19	Green	Green

Comments:

No comments.

2. SRNS Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	1	3
FY 18	0	0	0	2	8
FY 19	0	0	1	1	6

3. SRNS Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	0	0
FY 18	0	0
FY 19	0	0

4. SRNS Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	156	14	121	16	3	8
FY 18	150	26	123	36	1	5
FY 19	158	18	103	19	6	9

5. SRNS Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	21	Yes	7	2	3	21
FY 18	20	Yes	8	4	5	21
FY 19	20	Yes	7	3	4	20

6. SRNS Federal Staffing

Note: Federal oversight is combined for Savannah River Nuclear Solution (SRNS), Parsons Infrastructure and Technology Group, Inc. (Parsons), and Savannah River Remediation (SRR).

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	No	0	0	0	15
FY 18	3	No	2	0	2	16
FY 19	2	No	2	1	0	10

Savannah River Parsons

1. Parsons Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	N/A
FY 18	Green	N/A
FY 19	Green	N/A

Comments:

Parsons is not yet approved for operations; therefore, the Operational Implementation grade is not applicable.

2. Parsons Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	0	0
FY 18	0	0	0	0	0
FY 19	0	0	0	0	0

3. Parsons Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	N/A*	N/A*
FY 18	N/A*	N/A*
FY 19	N/A*	7

* No assessments performed.

4. Parsons Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	0	0	0	0	0	0
FY 18	0	0	0	0	0	0
FY 19	0	0	0	2	11	14

5. Parsons Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	2	Yes	0	0	0	30
FY 18	3	Yes	0	0	1	27
FY 19	2	Yes	0	1	0	24

6. Parsons Federal Staffing

Note: Federal oversight is combined for SRNS, Parsons, and SRR.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	No	0	0	0	15
FY 18	3	No	2	0	2	16
FY 19	2	No	2	1	0	10

Savannah River SRR

1. SRR Overall Performance

Fiscal Year	Program Health	Operational Implementation
FY 17	Green	Green
FY 18	Yellow	Green
FY 19	Yellow	Green

Comments:

An administrative error in the submittal of the FY 18 report was identified in which the Program Health grade was reported as being red when it should have been yellow. Additionally, SRR identified a couple of errors in previous year's data submittals. The FY18 submittal indicated that there were Level 4 and Level 5 infractions when there were not. Also, one non-compliance was missing in the FY17 report. These have been corrected in this submittal.

The FY 19 grade of yellow for Program Health is primarily due to the current staffing level, which includes one fully qualified CSE in SRR and reliance on an additional qualified CSE from SRNS to complete certain work scope. SRR anticipates having one additional qualified CSE by the spring of 2020.

2. SRR Criticality Safety Infractions

Fiscal Year	Level 1	Level 2	Level 3	Level 4	Level 5
FY 17	0	0	0	0	0
FY 18	0	0	0	0	0
FY 19	0	0	0	0	0

3. SRR Program Non-Compliances

Fiscal Year	Contractor Identified	Externally Identified
FY 17	1	0
FY 18	0	0
FY 19	0	2

4. SRR Contractor and Federal Assessments

Fiscal Year	Contractor Assessments			Federal Assessments		
	Total Assessments	Total Findings	Total OFIs	Total Assessments	Total Findings	Total OFIs
FY 17	9	1	1	1	0	0
FY 18	13	2	12	5	0	0
FY 19	9	0	4	4	2	0

5. SRR Contractor Staffing

Fiscal Year	Contractor Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	2	Yes	1	0	0	28
FY 18	1	No	1	1	0	40
FY 19	1	No	2	1	2	13

6. SRR Federal Staffing

Note: Federal oversight is combined for SRNS, Parsons, and SRR.

Fiscal Year	Federal Staffing					
	Qualified	Meets Target	In Training	Staff Lost	Staff Hired	Experience
FY 17	3	No	0	0	0	15
FY 18	3	No	2	0	2	16
FY 19	2	No	2	1	0	10