

**Office of Enterprise Assessments
Assessment of Occupational Injury and Illness
Recordkeeping and Reporting
at the Savannah River Site**



August 2018

**Office of Worker Safety and Health Assessments
Office of Environment, Safety and Health Assessments
Office of Enterprise Assessments
U.S. Department of Energy**

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ACRONYMS

CAIRS	Computerized Accident/Incident Reporting System
CFR	Code of Federal Regulations
CRAD	Criteria and Review Approach Document
CY	Calendar Year
DART	Days Away, Restricted or on Job Transfer
DDR	Duty Disposition Report
DOE	U.S. Department of Energy
EA	Office of Enterprise Assessments
EMBOS	Electronic Medical Business Operations System
OFI	Opportunity for Improvement
OII	Occupational Injury and Illness
OSHA	Occupational Safety and Health Administration
RWD	Restricted Work Day
SOMD	Site Occupational Medical Director
SRNL	Savannah River National Laboratory
SRNS	Savannah River Nuclear Solutions, LLC
SRS	Savannah River Site
TSD	Technical Support Division

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EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE) Office of Worker Safety and Health Assessments, within the independent Office of Enterprise Assessments (EA), conducted an assessment of Savannah River Nuclear Solutions, LLC (SRNS) occupational injury and illness (OII) recordkeeping and reporting at the Savannah River Site. EA also evaluated DOE line oversight of the contractor OII programs. The assessment included an onsite data collection visit from May 7 to 10, 2018. The objective of this assessment was to ensure the quality and accuracy of safety performance metric data available to DOE and DOE contractor management for feedback and improvement analysis and decision-making purposes. This assessment is part of EA's targeted assessment of DOE OII recordkeeping and reporting activities.

EA reviewed the SRNS OII case records for calendar year 2017 through the first quarter of 2018, including OII case and medical files, Occupational Safety and Health Administration 300 Logs and Annual Summaries, and recordable cases reported in DOE's Computerized Accident/Incident Reporting System (CAIRS). EA's review of records included OII case documentation for six SRNS subcontractors. In addition, EA interviewed SRNS personnel who are integral to OII recordkeeping and reporting processes, as well as 17 contractor employees regarding their previously reported injuries.

Overall, SRNS has satisfactory mechanisms in place for reporting contractor injuries at the Savannah River Site. Contractor and Federal personnel with OII recordkeeping responsibilities are knowledgeable and experienced in recordkeeping requirements. Interviewed workers understood the procedure for reporting, indicated that supervisors and managers actively encourage workers to report injuries, and stated that they did not experience any reprisal for reporting injuries and illnesses.

SRNS has a comprehensive OII program that is effective at identifying and investigating illness cases. The classification of OII cases is generally accurate, although 4 out of 60 cases reviewed in detail were found to be improperly classified. The information entered in CAIRS is well within the reporting timelines. The SRNS process for entering recordable OII cases into CAIRS within seven days is a best practice.

The DOE Savannah River Operations Office conducts comprehensive oversight of SRNS and other site contractor OII recordkeeping and reporting activities. This oversight provides a high level of confidence that contractor OII records are accurate and of the quality necessary for analysis and decision making by DOE and SRNS management.

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1.0 PURPOSE

The U.S. Department of Energy (DOE) Office of Worker Safety and Health Assessments, within the independent Office of Enterprise Assessments (EA), conducted an assessment of occupational injury and illness (OII) recordkeeping and reporting at the Savannah River Site (SRS). The objective of this assessment was to ensure the quality and accuracy of safety performance metric data available to DOE and DOE contractor management for feedback and improvement analysis and decision-making purposes. This assessment included an onsite data collection visit from May 7 to 10, 2018.

2.0 SCOPE

EA assessed the effectiveness of OII recordkeeping and reporting in accordance with the *Plan for the Office of Enterprise Assessments Assessment of Injury and Illness Recordkeeping and Reporting at the Savannah River Site, May 2018*. The scope included evaluation of the OII recordkeeping and reporting activities of Savannah River Nuclear Solutions, LLC (SRNS), which is the DOE prime management and operating contractor at SRS, and six of its subcontractors. EA also evaluated DOE line oversight of the contractor OII programs.

3.0 BACKGROUND

SRS is located in south-central South Carolina and occupies an area of about 310 square miles. It is owned by DOE and managed and operated by SRNS, a Fluor Corporation partnership with Newport News Nuclear, Inc. and Honeywell International, Inc. SRNS employs about 5,000 people. The primary mission of SRNS includes managing excess nuclear materials, supporting nuclear nonproliferation initiatives, and operating the Savannah River National Laboratory (SRNL). SRNS environmental stewardship activities include the management, treatment, and disposal of radioactive, hazardous, and mixed wastes. The DOE Office of Environmental Management's Savannah River Operations Office (DOE-SR) provides Federal oversight of SRNS.

4.0 METHODOLOGY

The DOE independent oversight program is described in and governed by DOE Order 227.1A, *Independent Oversight Program*. EA implements the independent oversight program through a comprehensive set of internal protocols, operating practices, assessment guides, and process guides. Organizations and programs within DOE use varying terms to document specific assessment results. In this report, EA uses the terms "deficiencies, findings, and opportunities for improvement (OFIs)" as defined in DOE Order 227.1A. In accordance with DOE Order 227.1A, DOE line management and/or contractor organizations must develop and implement corrective action plans for the deficiencies identified as findings. Other important deficiencies not meeting the criteria for a finding are also highlighted in the report and summarized in Appendix C. These deficiencies should be addressed consistent with site-specific issues management procedures.

As identified in the assessment plan, this assessment considered requirements related to 10 CFR Part 851, *Worker Safety and Health Program*. Specifically, SRNS must use the requirements and criteria in 29 CFR Part 1904, *Recording and Reporting Occupational Injuries and Illnesses*, and DOE Order 231.1B, *Environment, Safety and Health Reporting*, to accurately record local OII case records and enter recordable cases into the DOE Computerized Accident/Incident Reporting System (CAIRS) database within a prescribed timeframe.

EA used specific criteria from objectives OII.1, OII.2, and OII.4 of EA Criteria and Review Approach Document (CRAD) EA-32-07, *Occupational Injury/Illness Recordkeeping*, for this assessment, which was primarily a review of a sample of OII case records from calendar year (CY) 2017 through the first quarter of 2018. The assessment was not intended to be a full programmatic review; however, the records review was supplemented by other activities, such as interviews with managers who have OII recordkeeping responsibilities, to assess the effectiveness of some elements of SRNS contractor OII recordkeeping procedures.

EA evaluated available SRNS records associated with identifying, investigating, classifying, recording, and reporting OII cases, including OII cases in the DOE CAIRS case records. EA requested 27 interviews with the workers associated with the injury cases for additional information. Seventeen interviews were actually conducted after accounting for some workers not being available and the cancellation of some interviews by EA after onsite review of the OII case files. EA also examined key documents, such as procedures, analyses, and training records, and interviewed key personnel responsible for developing and executing the associated programs.

The members of the EA assessment team, the Quality Review Board, and EA management responsible for this assessment are listed in Appendix A. A detailed list of the documents reviewed, personnel interviewed, and observations made during this assessment, relevant to the findings and conclusions of this report, is provided in Appendix B. Appendix C lists identified deficiencies, and Appendix D summarizes the results of EA's case file reviews.

EA has not conducted a previous assessment of OII recordkeeping and reporting at SRS. Therefore, there were no items for follow-up during this assessment.

5.0 RESULTS

Objectives:

A procedure is in place to ensure that OII cases to DOE contractor employees are identified, properly classified, and accurately recorded. (CRAD EA-32-07, Objective OII.1, Criteria 1 through 4)

DOE contractor and subcontractor OII cases are accurately classified, and recordable OII cases, as well as work exposure hours, are reflected in CAIRS in a timely manner. (CRAD EA-32-07, Objective OII.2, Criteria 1 through 9)

Criterion:

The organization maintains a formal injury and illness recordkeeping program that outlines the responsibilities and procedures for identifying, reporting, classifying, and documenting OII cases. (10 CFR § 851.11(a) (3) (i), 851.20(a) (3) and (6), 851.23(a) (2), and 851.26(a) (2)-(4))

SRNS documents for investigating, documenting, classifying, and reporting OIIs include:

- Manual 8Q, *Employee Safety Manual*, Procedure 18, *Reporting, Responding, Investigating and Recording of Occupational Injuries/Illnesses and Reporting Lost-Time Off-The-Job Injuries*
- Manual Q3.1, *Medical Manual*, Procedure 2101, *Treating Occupational Injury/Illness*
- Manual Q1-1, *Administrative Procedures Manual*, Procedure 104, *Injury/Illness Recordkeeping*.

These SRNS procedures establish an effective OII recordkeeping program for reporting injuries/illnesses and investigating, classifying, and recording OII cases in a timely and accurate manner.

Criterion:

CAIRS organization code changes are required to reflect current reporting organizations, including separate organization codes for contractors and their subcontractors. (DOE Order 231.1B, Attachment 1, Contractor Requirements Document (CRD), Section 2.a. (3))

SRNS has established five CAIRS organization codes related to the types of operations conducted at SRS to report recordable OII cases and report work exposure hours, including codes 8511002 SRNS (production); 8511003 SRNL (research); 8511004 SRNS Service Subcontractor; 8511005 SRNS Construction; and 8511006 SRNS Construction Subcontractors. Use of these CAIRS organization codes to capture SRNS recordable OII cases is appropriate.

Criterion:

Personnel with OII recordkeeping responsibilities are properly trained. (10 CFR 851.25(c) and DOE Order 231.1B, Attachment 3, Section 1.i)

The two SRNS safety reporting specialists are adequately trained in Occupational Safety and Health Administration (OSHA) OII recordkeeping requirements and CAIRS. The lead safety reporting specialist responsible for OII recordkeeping has years of experience in OII case management as well as formal OSHA recordkeeping training from the DOE CAIRS administrator. In addition, the two safety reporting specialists review new OSHA OII recordkeeping classification interpretation letters quarterly and document the reviews in the site's issue tracking system.

Criteria:

Workers are trained to report all injuries and illnesses promptly per the organizational procedure. (10 CFR 851.25(a))

Workers report occupational injuries and illnesses without fear of reprisal. (10 CFR 851.20(a) (6))

Manual 8Q requires workers to report injuries and illnesses, and workers receive training on the injury reporting procedure when they are hired through the *General Employee Training* course and subsequent *Consolidated Annual Training* course. Interviewed workers understood the procedure for reporting, indicated that supervisors and managers actively encourage workers to report injuries, and stated that they did not experience any reprisal for reporting injuries and illnesses. Union officials were invited to meet with EA during the onsite data collection portion of this assessment in order to provide feedback on the implementation of OII recordkeeping and reporting by SRNS; however, the union officials reported that

they did not have any feedback and that they had sufficient avenues to address issues through DOE-SR and the contractors.

Criterion:

The OII reporting requirements flow to appropriate subordinate organizations, and sub-tier contractor records are reported to the DOE CAIRS database and recorded on OSHA 300 Logs. (10 CFR 851.11 and DOE Order 231.1B, Attachment 1, CRD, Section 2.a. (1))

SRNS has established procedural and contractual mechanisms designed to identify injury cases involving its subcontractor workers, including mechanisms for reporting injuries through assigned SRNS subcontractor technical representatives and safety engineers overseeing the subcontracted work. SRNS management and safety reporting specialists (Safety Reporting group, responsible for OII case classifications) are informed of injuries in order to investigate and classify each OII case. In addition, SRNS has established separate CAIRS organization codes for reporting its recordable subcontractor injuries.

EA reviewed injury records for CY 2017 through the first quarter of 2018, including OSHA Forms 300/300A for six subcontractors and the SRNS *Injury/Illness Trending Database*. Subcontractor recordable OII cases noted on OSHA 300 Logs were reported to SRNS and entered into CAIRS as required.

SRNS had an issue in October 2017 in which the SRNS subcontractor technical representative did not receive all the pertinent information related to a subcontractor OII case. DOE-SR and SRNS investigated the issue and SRNS appropriately classified the OII case within seven days of the injury. Both the subcontractor and SRNS initiated corrective actions to prevent recurrence. However, SRNS does not perform routine programmatic oversight of its subcontractors' OII recordkeeping programs to provide some assurance that subcontractors are reporting all OII cases as required. There are more than 100 SRNS subcontractors, so there is the potential for missed reporting of OII cases. (See **OII-SRNS-OII-1**.)

DOE Order 231.1B and 29 CFR 1904.31(b)(2) require recordable OII cases and exposure work hours for workers who augment the employer's workforce and receive day-to-day direction from the employer to be included on the employer's (SRNS's) OSHA 300 Log and 300A summary. EA found that injuries to subcontracted supplemental workers (currently about 380) are documented in the *SRNS Injury/Illness Trending Database*, and recordable injuries are included on the SRNS OSHA 300 Forms and reported into CAIRS.

Criteria:

Personnel with assigned CAIRS/OII recordkeeping responsibility are informed of all contractor and subcontractor injuries and illnesses through established accident/occurrence reporting mechanisms and review of other documentation. (CRAD EA-32-07, Objective OII.2, Criteria 2)

Verifiable case files are established for each OII containing information supporting classification decisions. (10 CFR 851.26(a) (1) and DOE Order 414.1D, Attachment 2, Quality Assurance Criteria, Criterion 4, Management/Documents and Records)

The safety reporting specialists are keenly aware of emergent OII cases that require their action to investigate and classify. Per procedure, injured or ill SRNS workers report through the site occupational medical director (SOMD) organization for evaluation and treatment as needed. SOMD personnel initiate

a Form OSR 2-14, *SRS Injury/Illness Report*, for all potential OII cases. SOMD personnel use the Electronic Medical Business Operations System (EMBOS) to manage medical records for each OII case, record case medical notes, and create a duty disposition report (DDR) each time there is a change in a worker's medical status or work/medical restrictions. DDRs are received by Safety Reporting by email. The Safety Reporting group uses Filemaker software to collect information for each OII case, such as DDRs, medical notes from EMBOS, safety investigation results, injured employee statements and management input, for case classification and tracking purposes. EA observed SOMD personnel creating a new case in EMBOS and populating software fields pertinent to OII recordkeeping, as well as retrieving information related to an OII case that EA had selected for detailed evaluation. EA also observed a safety reporting specialist using Filemaker software to retrieve EMBOS case medical notes and downloading the SRNS cases into Filemaker software to create, investigate, classify, track, record locally on OSHA recordkeeping forms, and enter recordable OII cases into CAIRS.

When necessary, the SOMD refers injured or ill workers to offsite medical providers for further medical evaluation, such as diagnostic imaging or evaluation by medical specialists. SOMD personnel complete the *SRS Medical Offsite Physician Referral Form Workers' Compensation/Diagnostic Evaluation Purposes* to authorize the injured worker to obtain needed offsite services. The offsite medical provider adds a short note regarding the results of the medical services and returns the referral form back to the SOMD, along with hardcopy evaluation results and treatment plans (i.e., prescription medications, medical diagnosis, or provided medical treatments). Although these detailed results from the offsite provider are retained in the hardcopy personnel medical files, they are not scanned into Filemaker software / EMBOS notes or provided to the safety reporting specialist for use in classifying OII cases. Relying on notations from the *SRS Medical Offsite Physician Referral Form Workers' Compensation/Diagnostic Evaluation Purposes*, and not the full medical report from the medical provider, may result in the safety reporting specialist not receiving all pertinent medical information that could trigger an OSHA recordable OII case. (See **OII-SRNS-OII-2**.)

Criterion:

Work exposure hours for each assigned reporting organization code are properly accounted for and electronically reported into CAIRS on or before the due date (10th of the month that follows each calendar quarter). (DOE Order 231.1B, Attachment 3, Section 1.e)

The SRNS safety reporting specialists use accounting information to determine SRNS and subcontractor work hours for organizations that are required to report OII cases to the CAIRS database by the 10th of the month following each calendar quarter. SRNS also use this work exposure hour documentation to complete OSHA Form 300A summaries. Work hours in CAIRS and on the signed/certified OSHA Form 300A Summaries are consistent.

Criterion:

The organization electronically submits initial case reports to the CAIRS database on or before the 15th and the last workday of the month, and provides updates by the 10th of the month that follows each quarter until closed. (DOE Order 231.1B, Attachment 3, Section 1.d)

SRNS consistently reported recordable OII cases to the CAIRS database in CYs 2017-2018 (through the first quarter) within seven days of the date of injury. This timely submittal of recordable cases is based on SRNS's conservative decision making on the classification of OII cases and recording them on its OSHA 300 Log within seven days while simultaneously entering them into CAIRS, well ahead of the CAIRS submittal requirements. SRNS subsequently updates the OSHA 300 Log and CAIRS records as additional information is received or by the 10th of the month that follows each calendar quarter. Open

cases are closed when no further updates are anticipated. The practice of entering recordable cases into CAIRS within seven days is noteworthy in that the three recent OII targeted assessments conducted by EA found that many contractors are chronically late in entering OII case into CAIRS. EA considers the SRNS process for entering recordable OII cases into CAIRS within seven days to be a **Best Practice**.

Criterion:

OIIs are investigated and classified per 29 CFR 1904 criteria with cases found to be recordable documented on the CAIRS form and on the local OSHA 300 Log. (29 CFR 1904.29(b) (3))

The SRNS *Injury/Illness Trending Database* included 129 injury and illness cases between CY 2017 and CY 2018 (through the first quarter), with 21 of these cases classified as OSHA recordable. The CAIRS Log for SRNS shows that these 21 recordable OII cases were documented in CAIRS. In addition, the SRNS OSHA 300 Logs match the OII recordable cases in the SRNS *Injury/Illness Trending Database*. The OSHA 300A Summary for fiscal year 2017 was certified and posted in the workplace appropriately.

EA selected 60 cases from CYs 2017 and 2018 for detailed review and interviewed 17 injured workers and 1 supervisor associated with 17 of the selected cases. EA found that the majority of cases were classified properly, with only minor discrepancies. However, EA identified four OII cases that were not classified correctly and one case that requires further investigation by SRNS to determine the appropriate OSHA classification. (**Deficiency**) A summary of the results of EA's case file reviews is provided in Appendix D. While EA was on site, SRNS reclassified one of the four cases requiring reclassification and entered the OII case into CAIRS.

Criterion:

Contractor conducts quarterly quality checks of local OII data and associated CAIRS records to ensure that information is thorough, accurate, and consistent. (DOE Order 231.1B, Attachment 3, Section 1.f)

EA performed a comprehensive quality assurance check of SRNS OII records that included a crosswalk between case information contained in CY 2017-2018 CAIRS Logs, OSHA 300 Logs, 300A Summaries, the DOE Occurrence Reporting and Processing System, the SRNS *Injury/Illness Trending Database*, and subcontractor OII records. SRNS OII records of its workers and subcontractors were found to be consistent between all of the local records and CAIRS.

SRNS conducts quality checks quarterly as required. Documentation for these quality checks is included in the site's issue tracking system and is appropriate in scope and rigor. EA's review of this documentation indicated that issues are being identified and corrected. The SRNS safety reporting specialists are also responsible for managing workers' compensation cases, providing a synergistic relationship that provides readily available information to cross-check whether OII cases are being fully identified for both OII recordkeeping and workers' compensation purposes.

The CY 2017 SRNS quality checks were effective in finding and correcting OII record quality issues and most OII OSHA classification errors.

Criterion:

DOE line management evaluates contractor and DOE programs, as well as management systems, including site assurance systems, for effectiveness of performance (including compliance with requirements). (DOE Order 226.1B, Section 4.b. (1))

DOE line management has written plans and schedules for planned assessments, focus areas for operational oversight, and reviews of the contractor's self-assessment of processes and systems. (DOE Order 226.1B, Section 4.b. (2))

DOE-SR appropriately schedules, plans, and conducts comprehensive and effective oversight of SRNS and other site contractor OII recordkeeping activities and records. The Technical Support Division's (TSD's) OII recordkeeping subject matter experts are knowledgeable, experienced, and qualified to conduct oversight of contractor OII recordkeeping. The TSD annual assessment plans since 2008 include multiple OII-related assessments of various site contractors. Records in the DOE-SR issue tracking system show that these OII recordkeeping assessments were scheduled and based on CRADs with appropriate lines of inquiry. Assessment reports and the results of the evaluation of SRNS corrective actions are thoroughly documented in the DOE issue tracking system.

In addition to planned programmatic OII recordkeeping oversight, TSD OII subject matter experts also conducted biannual quality checks of contractor OII records, maintained a real-time awareness of potential contractor injuries (i.e., notification of ambulance runs and contractor notifications of initial injury reports), and demonstrated a recent immediate response to an OII case-related subcontractor employee concern.

Using performance analysis of contractor OII data, DOE-SR identified an adverse trend regarding slips, trips, and falls. To address this adverse trend, DOE-SR developed a Performance Based Incentive in the SRNS Performance Evaluation Management Plan to incentivize contractor corrective actions.

6.0 FINDINGS

EA did not identify any findings during this assessment. Deficiencies that did not meet the criteria for a finding are listed in Appendix C of this report, with the expectation from DOE Order 227.1A for site managers to apply their local issues management processes for resolution.

7.0 OPPORTUNITIES FOR IMPROVEMENT

EA identified two OFIs to assist cognizant managers in improving programs and operations. While OFIs may identify potential solutions to findings and deficiencies identified in appraisal reports, they may also address other conditions observed during the appraisal process. EA offers these OFIs only as recommendations for line management consideration; they do not require formal resolution by management through a corrective action process and are not intended to be prescriptive or mandatory. Rather, they are suggestions that may assist site management in implementing best practices or provide potential solutions to issues identified during the assessment.

OFI-SRNS-OII-1: SRNS should consider conducting periodic programmatic oversight of its subcontractors' OII recordkeeping programs and records for each CY and/or conducting a periodic data call of subcontractors' OSHA 300 Logs to help ensure that all subcontractor injuries are captured in SRNS OII records.

OFI-SRNS-OII-2: SRNS should consider providing safety reporting specialists with the actual medical documentation from offsite medical providers for OII cases in order to ensure that they have complete information for determining OSHA classifications. This could be done through scanning the offsite medical documentation into EMBOS when received by the SOMD or providing hardcopies to the safety reporting specialists for their evaluation and inclusion in the auditable OII case file.

Appendix A Supplemental Information

Dates of Assessment

Onsite Assessment: May 7-10, 2018

Office of Enterprise Assessments (EA) Management

William A. Eckroade, Acting Director, Office of Enterprise Assessments
Thomas R. Staker, Director, Office of Environment, Safety and Health Assessments
William E. Miller, Deputy Director, Office of Environment, Safety and Health Assessments
C.E. (Gene) Carpenter, Jr., Director, Office of Nuclear Safety and Environmental Assessments
Kevin G. Kilp, Director, Office of Worker Safety and Health Assessments
Gerald M. McAteer, Director, Office of Emergency Management Assessments

Quality Review Board

Steven C. Simonson
John S. Boulden III
Kevin L. Dressman
Michael A. Kilpatrick
Kevin L. Nowak

Site Leads for SRS

Jeffrey G. Snook
Kevin M. Witt

EA Assessors

James B. Coaxum, Jr. – Team Leader
Kevin G. Kilp
Charles C. Kreager
Terry E. Krietz

Appendix B
Key Documents Reviewed, Interviews, and Observations

Documents Reviewed

- Organization Charts for DOE-SR and SRNS
- S-SHP-B-00005, *SRNS Worker Safety and Health Program*, Rev. 7, 9/18/17
- Manual Q1-1, *Administrative Procedures Manual*, Procedure 104, *Injury/Illness Recordkeeping*, Rev. 12, 2/8/18
- Manual Q3.1, *Medical Manual*, Procedure 2101, *Treating Occupational Injury/Illness*, Rev. 0, 8/24/11
- Manual 8Q, *Employee Safety Manual*, Procedure 18, *Reporting, Responding, Investigating and Recording of Occupational Injuries/Illnesses and Reporting Lost-Time Off-The-Job Injuries*, Rev. 12, 10/23/14
- SRNS *Injury/Illness Trending Database* Search Printout for Injury/Illness Cases Occurring CY 2017 – 2018 (through 3/31/18)
- CAIRS Log for SRNS CAIRS Organizations CY 2017 – 2018 (through 3/31/18) Printed on 4/6/18
- Email from Vernard Dicker to Kliss Mcneel, Mike Conaway, Mary Flora and Yvonne Gentry (DOE-SR), Subj: *CASE RECLASSIFIED (Upgrade from FA to MTC) Confirmation of SRNS Operations Recordable Injury – S2017015 (MTC)*, 5/8/18
- OSHA 300 Logs for CY 2016 – 2018 and CY 2017 OSHA 300A Summaries for:
 - SRNS (including OSHA 300A Summary revised on 5/8/18)
 - American Services Technology, Inc. (ASTI)
 - Envirocon
 - C. E. Bourne
 - System One
 - Unitech
 - Hebbard Electric
- Workers' Compensation Case Listing from Sedgwick
- Service and Construction Subcontractor Manhour Report for March 2018
- Envirocon *Worker Protection Plan (WPP)*, April 2016
- SRNS *DOE Case Number Log Sheet* for Subcontractor Injuries CY 2016 – 2018
- SRNS-MS-2008-0009, *GENERAL PROVISIONS FOR FIXED-PRICE ORDERS UNDER U. S. DEPARTMENT OF ENERGY PRIME CONTRACT NO. DE-ACO9-08SR22470*, Rev. 15, 2/28/18
- SRNS *Buyer Guidance on Subcontract Safety and Health Submittals*, Rev. 1, 1/22/15
- Standard Subcontract Template, Rev. 9, 4/30/18
- OSR Form 1-183, *Subcontract Safety Checklist*, Rev. 12/15/16
- OSR Form 1-126, *Subcontract Field Conditions*, Rev. 10/23/17
- Form *SRS Medical Offsite Physician Referral Form Workers' Compensation/Diagnostic Evaluation Purposes*
- Sample *Subcontractor Safety Acceptance Letter*
- SRNS Construction Subcontract No. 0000258194 with Envirocon, 1/5/15
- SRNS Service Subcontract No. 0000256111 with ASTI, 6/30/16
- 2017-SA-001861/001862/001863/001864, SRNS *CAIRS Quarterly Reviews*
- Annual Assessment Plan Report for TSD CY 2008 – 2018
- 2016-SA-006488, [TSD] *Evaluation of SRNS Injury/Illness Recordkeeping/Reporting Programs (SRNS)*, Closed 10/31/17
- Fiscal Year 2017 Performance Evaluation Plan for SRNS

Interviews

Savannah River Nuclear Solutions, LLC

- Senior Vice President, Environmental Stewardship, Safety and Health
- SOMD
- Safety and Health Director
- Safety Reporting Specialist/Workers' Compensation (2)
- Procurement Manager
- Safety Engineer
- Subcontractor Technical Representatives (2)
- Manager, Subcontractor Technical Representatives
- Envirocon Site Safety Representative
- ASTI Project Manager
- ASTI Site Safety Representative
- Workers Associated with OII Cases (17)
- Supervisor Associated with OII Case

Savannah River Operations Office

- Manager
- TSD Director
- OII Recordkeeping SMEs (2 Safety and Occupational Health Specialist/Manager; 1 Industrial Hygienist)
- STAR-CAMP Program Manager

Observations

- Demonstration of EMBOS
- Demonstration of *Injury/Illness Trending Database*
- End-of-Day Meetings

Appendix C Deficiencies

Deficiencies that do not meet the criteria for a finding are listed below, with the expectation from DOE Order 227.1A that site managers will apply their local issues management processes for resolution.

- SRNS did not properly classify four occupational injuries and illnesses, as required by 10 CFR 851.26(a)(2) and 29 CFR 1904.4.

Appendix D
Results of Case File Reviews

OII Cases Not Properly Classified		
Injury Date	SRNS Classification	Case Summary and Required Classification
9/27/2017	First Aid	<p>A radiological control first line manager was descending stairs when the employee tripped and missed three steps, causing an injury to the left ankle. Emergency medical services transported the injured employee to N-Area medical. Employee was diagnosed with a left ankle sprain. Medical applied ice to the injured ankle, prescribed 400 mg of ibuprofen, and issued crutches. Employee was referred to an orthopedic specialist on 9/28/2017, and the orthopedist issued a CAM Boot to the employee.</p> <p>Required Classification: <u>Medical Treatment Case</u></p> <p>(SRNS changed the classification from First Aid to Medical Treatment on 5/8/2018 based on EA's evaluation.)</p>
2/8/2018	Non-occupational	<p>A senior lab technician was walking in a hallway when the technician's right knee "gave away." Site medical prescribed ibuprofen and a bandage wrap and recommended that the employee be transported to Aiken or Augusta hospital, although the employee refused.</p> <p>The SRS Injury/Illness Report listed the "Diagnosis: Laxity Knee Joint - personal. Treatment - Observation; Advised ice, elevation, Nonsteroidal anti-inflammatory drug until Doctor follow-up. Work Limitations/Restrictions - None." An email on 2/8/2018 from the Program Manager states that he spoke with the employee, and the employee stated no previous history with knee problems. The email states, "[Employee's] first line manager just stopped by and said that the issue was non-occupational; however, I want to get a report from our safety engineer on the management of this case." SRS Recordkeeping Case Summary and Classification Justification form dated 2/13/2018 concluded that the case was "Non-Occ" because "the work environment did not contribute to the employee's condition....Per Dr. Johnson, the employee's knee condition would have occurred (sic) regardless of activity</p>

OII Cases Not Properly Classified

Injury Date	SRNS Classification	Case Summary and Required Classification
		<p>being performed, employee’s condition manifested itself in the workplace.”</p> <p>The excerpts below from an OSHA letter of interpretation (https://www.osha.gov/laws-regs/standardinterpretations/2014-02-28) dated 2/28/2014 clarify the determination of work-relatedness:</p> <p>“Section 1904.5 of OSHA’s recordkeeping regulation provides that the decision as to whether a specific injury or illness is work-related is ultimately the responsibility of the employer. However, the regulation allows an employer to seek and consider the guidance of a physician or licensed health care professional. When determining whether an employee’s injury or illness is work-related, an employer and/or a physician or licensed health care professional must follow the definitions set forth in section 1904.5.</p> <p>Section 1904.5(a) provides that injuries and illnesses must be considered work-related if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing condition. Work-relatedness is presumed for injuries or illnesses resulting from events or exposures in the work environment, unless an exception in section 1904.5(b) (2) specifically applies. Accordingly, for a case to be work-related there must be a causal connection between the injury or illness and an event or exposure at work. For OSHA recordkeeping purposes, causality is established if work is a cause. The work event or exposure need only be a cause of the injury or illness; it need not be the sole or predominant cause. See, the preamble to the final rule revising OSHA’s recordkeeping regulation 66 Federal Register 5929-32, 5946 and 5948. Also, “it is not necessary that the injury or illness result from conditions, activities, or hazards that are uniquely occupational in nature.” 66 Federal Register 5929.</p> <p>Under OSHA's recordkeeping system, normal body movements in the work environment, such as walking, bending down or sneezing, are “events” which trigger the presumption for work-relatedness if they are a</p>

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		<p>discernible cause of an injury.”</p> <p>Required Classification: <u>Work Related; First Aid</u></p> <p>The injured employee was not available for interview, and the information in the case file is not sufficient to determine whether this case is OSHA recordable with possible days away from work or restricted work days (RWDs). SRNS should reevaluate this case based on EA’s determination that the case is work related and determine whether the case is recordable with days away from work and/or RWDs.</p>
2/22/2018	Medical Treatment	<p>A journeymen asbestos insulator pushed a bag of tools across the tailgate and into the bed of a pickup truck. The employee suffered a laceration to his or her right hand (webbing between the fourth and fifth digits), was sent to site medical, and was provided with two sutures. Site medical provided the following work restriction, dated 2/22/2018: “Limit use of right hand.” The restriction was for seven days, 2/22/2018 through 3/1/2018. The employer maintained that the employee could perform his routine weekly work duties. However, the “Work Restriction Documentation” document to establish that the employee could do his routine work activities was not signed until 2/26–2/27/2018. This document identified the routine weekly work activities as “1) Removing and replacing insulation materials. Wrapping process and steam piping.” The case was classified as a medical treatment case.</p> <p>Interviews with the injured employee and with the employee’s supervisor at the time showed that the employee could not have performed his normal weekly job duties until the sutures were removed on 3/1/2018.</p> <p>Required Classification: <u>Days Away, Restricted or on Job Transfer (DART) Case with 7 RWDs</u></p>

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6/14/2017	Medical Treatment	<p>A senior lab technician was descending stairs and missed a step, causing the employee to twist his or her left ankle. Site medical diagnosed a sprain to the left ankle and treated the employee with ice, over-the-counter medication, and an ACE Wrap and provided the employee with crutches as a precaution. On 6/15/2017, an x-ray was performed, which was negative.</p> <p>Though the initial incident/injury notification form indicated that no restrictions were issued, EA learned in an interview with the employee that he or she was told to keep the foot elevated. That afternoon, the employee returned to work and was instructed by his or her supervisor to keep the foot elevated and only do computer-based training. The employee then went on a previously planned seven-day vacation.</p> <p>On 6/27/2017, the employee returned to work and site medical placed the employee on the following work restrictions: “avoid climbing ladders/scaffolds, ambulation as tolerated, standing as tolerated.” On 6/30/2017, the employee was placed on an additional restriction by site medical: “limit walking.” On 7/13/2017, the employee was lifted of all restrictions by site medical.</p> <p>Required Classification: <u>DART Case with at least 15 RWDs</u></p> <p>SRNS should evaluate this case to determine whether additional RWDs accrued from 6/30/2017 to 7/13/2017.</p>

OII Cases Requiring Additional Information to Properly Classify

Injury Date	SRNS Classification	Case Summary and Determination
1/30/2018	Non-Occupational	<p>On 1/30/2018, an auxiliary lab technician was pushing a cart of samples up a slight incline. On 1/31/2018, the employee felt lower back discomfort but did not report it to anyone at the time. The employee reported to his or her personal doctor on 2/1/2018 and was issued prescription medications that are routinely taken for an existing personal condition. On 2/5/2018, the employee reported to site medical and was placed on work restrictions: “No overhead work; no lifting greater than 10 pounds and no pushing/pulling over 50 pounds.” On 2/5/2018, the employee, the supervisor, and the safety engineer signed an Occupational Injury/Illness Work Restriction Documentation form listing the restrictions, “No overhead work, no lifting > 10 pounds, no pushing or pulling over 50 lbs.”</p> <p>According to the employee’s supervisor, on 2/8/2018, the employee saw his or her personal physician and subsequently reported to site medical that he or she had chronic lower back pain and was scheduled to receive steroid injections. On 2/12/2018, the Occupational Injury/Illness Work Restriction Documentation form was updated to include new work restrictions, “Other, No sitting or standing for long periods of time,” and was signed by the employee.</p> <p>Neither of the Occupational Injury/Illness Work Restriction Documentation forms identified the employee’s routine weekly work activities; the space provided at the bottom of the form for this purpose was left blank. Although the forms indicated that the employee could perform his or her routine weekly job duties, the restrictions identified above, along with the employee’s Physical Job Demands listed on the “Employee Job Task Analysis,” make that determination questionable.</p> <p>Additionally, this injury constitutes a “significant aggravation” of a previous condition requiring medical treatment. SRNS indicates that they dispute the employee’s contention that there was significant aggravation of a previous injury. However, SRNS has not established/documentated its position on the matter satisfactorily.</p>

OII Cases Requiring Additional Information to Properly Classify		
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		<p>Required Classification: <u>SRNS should reevaluate its determination regarding work-relatedness, medical treatment, and potential RWDs. In addition, SRNS should provide cogent documentation to support its final classification decision.</u></p>