



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200
ATLANTA, GEORGIA 30303-1200

January 26, 2024

Ronald Dailey
President
Nuclear Fuel Services, Inc.
P.O. Box 337
MS 123
Erwin, TN 37650-0337

SUBJECT: NUCLEAR FUEL SERVICES – CORE INSPECTION REPORT
07000143/2023004

Dear Ronald Dailey:

On December 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Nuclear Fuel Services. On January 10, 2024, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

No violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

A handwritten signature in black ink, appearing to read "R. Williams, Jr.", written over a horizontal line.

Signed by Williams, Robert
on 01/26/24

Robert E. Williams, Jr., Chief
Projects Branch 1
Division of Fuel Facility Inspection

Docket No. 07000143
License No. SNM-124

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: NUCLEAR FUEL SERVICES – CORE INSPECTION REPORT
07000143/2023004 DATED JANUARY 26, 2024

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| NAME | L. Cooke | N. Peterka | L. Pitts | T. Sippel | L. Harris | M. Greenleaf | R. Williams |
| DATE | 1/19/2024 | 1/19/2024 | 1/19/2024 | 1/19/2024 | 1/24/2024 | 1/25/2024 | 1/26/2024 |

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 07000143

License Number: SNM-124

Report Number: 07000143/2023004

Enterprise Identifier: I-2023-004-0065

Licensee: Nuclear Fuel Services, Inc.

Facility: Nuclear Fuel Services

Location: Erwin, Tennessee

Inspection Dates: October 01, 2023, to December 31, 2023

Inspectors: L. Cooke, Fuel Facility Inspector
M. Greenleaf, Technical Assistant
L. Harris, Sr. Resident Inspector
N. Peterka, Sr. Fuel Facility Project Inspector
L. Pitts, Sr. Fuel Facility Project Inspector
T. Sippel, Sr. Fuel Facility Project Inspector

Approved By: Robert E. Williams, Jr., Chief
Projects Branch 1
Division of Fuel Facility Inspection

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a core inspection at Nuclear Fuel Services, in accordance with the fuel cycle facility inspection program. This is the NRC's program for overseeing the safe operation of licensed fuel cycle facilities. Refer to <https://www.nrc.gov/materials/fuel-cycle-fac.html> for more information.

List of Violations

No violations of more than minor significance were identified.

Additional Tracking Items

None.

PLANT STATUS

The following facility process areas were operating during the inspection period: Fuel Manufacturing Facility (FMF) and the Blended Low Enriched Uranium (BLEU) Preparation Facility (BPF), which includes the Uranium-Oxide (U-Oxide), solvent extraction and the down blending lines. Normal support services and departments were operational during the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Inspections were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

SAFETY OPERATIONS

88015 - Nuclear Criticality Safety

The inspectors evaluated selected aspects of the licensee's Nuclear Criticality Safety (NCS) program to verify compliance with selected portions of Title 10 of the Code of Federal Regulations, Part 70 (10 CFR 70), including sections 70.24, 70.50, 70.61, 70.62, and Appendix A; Chapter 5, "Nuclear Criticality Safety," of the facility's license application; and applicable licensee procedures.

Criticality Analysis (IP Section 02.01)

The inspectors interviewed licensee staff and reviewed nuclear criticality safety evaluations (NCSEs), and associated assumptions and calculations, to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.1.1, 5.5.2, 5.5.3, and 5.5.4. Specifically, the inspectors interviewed licensee staff and reviewed the following NCSEs:

- 54T-12-0027, "Nuclear Criticality Safety Evaluation Waste Water Treatment Facility," Rev. 7, including the review of what-if analysis, normal, credible abnormal, and non-credible accident sequences, including accident sequences waste water treatment facility (WWTF)-C-1A, -C-1B, and -C-1C
- 54T-14-0023, "Addendum 1 to Nuclear Criticality Safety Evaluation Waste Water Treatment Facility," Rev. 0, which contained a variety of calculations and information supporting the licensee's evaluation of accident sequences and items relied on for safety (IROFS) in the WWTF
- 54T-18-0001, "Nuclear Criticality Safety Evaluation Utility Backflow Protection - Plant Air, Nitrogen, DI Water," Rev. 0

- 54T-22-0001, "Nuclear Criticality Safety Evaluation 310 Warehouse," Rev. 3, including the review of what-if analysis, normal, credible abnormal, and non-credible accident sequences
- 54X-22-0006, "Addendum 2 to the Nuclear Criticality Safety Evaluation Waste Water Treatment Facility," Rev. 0, which contained a variety of calculations and information supporting the licensee's evaluation of accident sequences and IROFS in the WWTF
- 54X-23-0003, "Nuclear Criticality Safety Evaluation for Area B (Building 302 and Building 303) of the Production Fuel Facility," Rev. 6, including review of the licensee's what-if analysis, normal, credible abnormal, and non-credible accident sequences, calculation inputs and results
- Integrated Safety Analysis (ISA) information for the systems covered by the NCSEs listed above

Criticality Implementation (IP Section 02.02)

The inspectors selected engineered and administrative controls from the licensee's ISA Summary to verify proper implementation through a review of process and system descriptions, plant walk-downs, and operator interviews to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.3.5 and 5.3.7. Specifically, the inspectors interviewed licensee staff and reviewed the following controls, and selected management measures, associated with the NCSEs listed above:

- IROFS FAB-8, an administrative control on volume, by reviewing the posting on the enclosure in the field
- IROFS FAB-13, an active engineered control with two spring closed valves, by reviewing recent safety-related equipment (SRE) test records and setpoint analysis (SA-000178)
- IROFS FAB-15, an active engineered control with two spring closed valves, by reviewing recent SRE test records
- IROFS FAB-1022, a passive engineered control on the flatness of the floor, by observing in the field
- IROFS UBP-1, a passive engineered control air gap/overflow to prevent backflow, by observing in the field
- IROFS UBP-2, an active engineered control moisture sensor to prevent backflow, by observing in the field and reviewing a recent SRE test record
- IROFS UBP-3, an active engineered control moisture sensor to prevent backflow, by observing in the field and reviewing a recent SRE test record
- IROFS UBP-4, an active engineered control moisture sensor to prevent backflow, by observing in the field and reviewing a recent SRE test record
- IROFS UBP-5, an active engineered control moisture sensor to prevent backflow, by observing in the field and reviewing a recent SRE test record
- IROFS UBP-6, an active engineered control moisture sensor to prevent backflow, by observing in the field and reviewing a recent SRE test record
- IROFS UBP-7, an active engineered control moisture sensor to prevent backflow, by observing in the field and reviewing a recent SRE test record
- IROFS WWT-3, an administrative control on mass, by reviewing visual inspection and non-destructive assay inspection records (including FM-HS-CL-15-01)

- IROFS WWT-31, a passive engineered control to prevent spills from workstations in the 105 lab from entering a sink, by observing in the field
- IROFS WWT-32, an active engineered control on mass, by reviewing the posting on the room in the field
- Non-IROFS 310-1020, and admin control on mass, by reviewing mass log FM-WST-058
- Various dimensions (e.g., column diameters), and volumes (e.g., pump volumes) that relate to criticality safety

Criticality Operational Oversight (IP Section 02.03)

The inspectors assessed the NCS staff's oversight of plant operators, procedures, and operations of systems involving special nuclear material to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.3.4 and 5.3.6. Specifically, the inspectors performed the following activities:

- interviewed WWTF staff concerning criticality hazards and control methods, including monitoring for and preventing long-term accumulations
- observed a licensee NCS engineer conduct a weekly audit and reviewed a sample of audit reports from the last year, including NCS-2023-01, NCS-2023-05, NCS-2023-11, NCS-2023-17
- reviewed control flowdowns and field verification documents completed by NCS engineers that document what the NCS engineers did to verify the implementation of NCS controls that were established by the NCSEs listed above, and interviewed NCS engineers about selected controls

Criticality Programmatic Oversight (IP Section 02.04)

The inspectors reviewed NCS program procedures, audits, and NCS staff qualifications to verify compliance with 10 CFR 70 and applicable sections of the license application, including, 2.2.5.1, and 5.3.3. Specifically, the inspectors interviewed licensee NCS staff and reviewed the following documents:

- qualification records for a recently qualified NCS engineer
- qualification records for a qualifying NCS engineer
- qualification records for the NCS manager

Criticality Incident Response and Corrective Action (IP Section 02.05)

The inspectors reviewed the licensee's criticality accident alarm system (CAAS) and problem identification, resolution and corrective system (PIRCS) entries to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.3.9. Specifically, the inspectors reviewed documents, and/or interviewed licensee staff concerning the following:

- the CAAS and NCS-related PIRCS entries listed in the "Documents Reviewed" section of this report.

88135.02 - Plant Status

The inspectors conducted a series of walk-downs and observations to gain insights into the status of facility activities, risk-inform the selection and implementation of the appropriate core IPs and ensure compliance with license and regulatory requirements. Specifically, the inspectors conducted routine walk-downs of process areas; observed operators, material control and accounting (MC&A) and security force personnel; inspected postings and licensee guidance documents; interviewed plant personnel; and discussed the results of operational and shift turnover meetings with pertinent licensee staff.

Plant Tours (IP Section 03.01)

The inspectors performed weekly tours of plant operating areas housing special nuclear material (SNM) to verify that licensed activities were conducted safely and in compliance with the license and 10 CFR 70, "Domestic Licensing of Special Nuclear Material."

Status Meetings (IP Section 03.02)

The inspectors attended and reviewed the results of licensee meetings on a routine basis to identify the status of plant activities and properly focus NRC inspection resources on activities with the higher safety significance. The inspectors attended the following meeting categories during the inspection period:

- Safety and Security Review Council (SSRC) meetings
- PIRCS Meetings
- Plan of the Day Meetings

Record and Log Reviews (IP Section 03.03)

The inspectors reviewed selected records and logs to ensure they were developed, maintained, and reported, as required by applicable license and regulatory requirements. The records selected for review are listed in the "Documents Reviewed" section of this inspection report.

Identification and Resolution of Problems (IP Section 03.05)

The inspectors reviewed selected issues to determine if the licensee was entering equipment, human performance, and other performance issues in a formalized program to identify, track, and assure correction of safety and safeguard significant problems in accordance with 10 CFR 70.62(a)(3) and applicable license requirements. The issues selected for review are listed in the "Documents Reviewed" section of this inspection report as PIRCS.

Audits (IP Section 03.07)

The inspectors reviewed the program audits listed below to determine whether they were performed in accordance with 10 CFR 70.22(h)(1), if applicable, and the license application.

- Third Quarter 2023 Environmental Safety Inspections/Audit
- Third Quarter 2023 ISA and Fire Safety Audit

Procedures (IP Section 03.08)

The inspectors reviewed selected procedures to determine if the licensee was using and maintaining them in accordance with applicable license requirements. The procedures selected for review are listed in the "Documents Reviewed" section of this inspection report.

Radiation Work Permit (RWP) (IP Section 03.09)

The inspectors reviewed and observed the RWPs (also known as safety work permits or SWPs) listed below to determine whether they contained the information required in Chapter 4, "Radiation Safety," of the license application; the Radiation Protection Manual; and licensee implementing procedures:

- SWP 18695 333 UAL Work Request 296862
- SWP 18696 303B Work Request 311235 and 311224

Annual Security and Emergency Preparedness Drills/Exercises (IP Section 03.10)

The inspectors observed the licensee's performance during the Force-On-Force (FOF) training exercises listed below to determine they were being implemented in accordance with 10 CFR 73.

- Security FOF tactical response exercises conducted in October and December 2023

88135.04 - Resident Inspection Program Operational Safety

The inspectors reviewed the material condition and as-found configuration of selected site structures, systems, and components (SSCs); reviewed corresponding documentation, and interviewed licensee personnel to verify compliance with 10 CFR Part 70 and the license application. The inspectors also verified whether the selected SSCs were available and reliable to adequately protect plant workers and the public during normal, off-normal, and accident conditions.

Operations Safety Walkdown (IP Section 03.01)

The inspectors performed walk-downs and evaluated the IROFS listed below associated with the 333 Building processing area.

- BDB 2
- BDB 10 through 14
- BDB 17
- BDB 19
- BDB 20
- BDB 22

88135.05 - Resident Inspection Program Fire Protection (Annual/Quarterly)

The inspectors evaluated the operational status and material condition of selected fire protection SSCs to verify compliance with the fire protection program as described in Chapter 7, "Fire Safety" of the license application, and the National Fire Protection Association (NFPA) standard 801, "Standard for Fire Protection for Facilities Handling Radioactive Materials," as applicable.

Fire Area Walkdown (IP Section 03.01)

The inspectors walked down and evaluated the 105 Laboratory and the associated fire safety controls and documents listed below.

- IROFS FIRE 2 and related combustible control documentation
- IROFS FIRE 37 through 40
- Barriers and Dampers
- Annual sprinkler inspection and associated test conducted in April 2023
- Test for N105VALVEGANG28
- Test for N105VALVEGANG26

88135.19 - Post-Maintenance Testing

The inspectors evaluated post-maintenance test activities to verify compliance with Chapter 11, "Management Measures," of the license application; and test procedures or work orders (WOs) to confirm functional capability of selected IROFS and safety controls following maintenance.

Post-Maintenance Testing (IP Section 03.01)

The inspectors reviewed the post-maintenance tests listed below. The inspectors either observed the tests directly or reviewed test results.

- N302XXXXLSHPAW1, WO 310723
- N302XXXXLSHPAW2, WO 310723
- N302XXXXLSHPAW3, WO 310723
- N306H2DETR800, Work Request 310750
- N306OVRFLOWD02, Work Request 301627

88135.22 - Surveillance Testing

The inspectors evaluated IROFS and safety controls that required periodic surveillance or calibration tests to ensure they were available and reliable to perform their function when needed; to verify compliance with Chapter 11, "Management Measures," of the license application, and the requirements of 10 CFR 70.61 and 70.62; and to verify the IROFS maintained their operational readiness consistent with the ISA Summary.

Surveillance and Calibration Testing (IP Section 03.01)

The inspectors reviewed the surveillance tests listed below. Tests were either observed directly or test results were reviewed.

- N333OVRFLO1F01F04B
- N333XAIRGAP3E01

FACILITY SUPPORT

88072 - Plant Modifications (Triennial)

The inspectors conducted an extensive review into the licensee's configuration management system for plant modifications to ensure that safety-related systems and components (i.e., IROFS or credited safety controls) could adequately perform their intended safety function and that system changes had not adversely impacted plant safety and operability. The inspectors' review focused on verifying compliance with the applicable requirements in 10 CFR 70 and the license application, Chapter 11, "Management Measures."

Selection of Modifications (IP Section 02.01)

The inspection team leader reviewed licensing documents and conducted a site preparation visit on October 17, 2023, to discuss plant modifications in risk-significant areas and processes with the licensee. The inspectors selected the following processes for an in-depth review of historical modifications identified as Engineering Change Requests (ECRs):

CO₂ Replacement in Building 303 with Fire Trace

- Internally Approved Change (IAC) 902, CO₂ Replacement in Building 303 with Fire Trace
- IAC 897, Building 302/303 CO₂ Replacement
- ECR-20212623, Replace Building 303 CO₂ System with FireTrace Suppression System (IAC 902)
- ECR-2021286, Building 303 CO₂ Fire Suppression System Removal, Zones 7 & 8

Building 303, Area 600

- ECR-20191628, Decommissioning and Dismantling (D&D) of Process Equipment in Areas 600 & 700 located in Building 303 (mechanical isolations/removal)
- ECR-20200047, Replace Asco Solenoid Valves with Air Actuated Swagelok Ball Valves

Building 303, Area 300 - 500

- ECR-2020-0081-03, Replace B303-A300 Gear Pumps and Controllers
- ECR-2020-0081-09, Reroute B303 N₂ Line

Design Process Review (IP Section 02.02)

For the selected modifications listed above, the inspectors reviewed the design process to verify the licensee followed the applicable configuration management requirements in the license application and 10 CFR 70. Specifically, the inspectors conducted the inspection activities listed below:

- interviewed licensee staff, performed walk-downs, and reviewed configuration management packages and supporting documentation to verify that plant modifications were developed, reviewed, classified, approved, and implemented in accordance with 10 CFR 70.72, “Facility Changes and Change Process,” and 70.62(d), “Management Measures”
- interviewed licensee staff, performed walk-downs, and reviewed the ISA, ISA Summary, and safety program information impacted by the modifications to verify compliance with 10 CFR 70.62, 10 CFR 70.72, and the baseline design criteria of 10 CFR 70.64, as applicable
- interviewed licensee staff, performed walk-downs, and reviewed configuration management packages and supporting documentation to verify that safety systems and components impacted by the modification, including interactions with other systems, would perform their intended safety function as described in the ISA and safety program documentation
- interviewed licensee staff, performed walk-downs, and reviewed documentation to verify the licensee applied management measures to the IROFS affected by the modifications in accordance with 10 CFR 70.62
- interviewed licensee staff, performed walk-downs, and reviewed corrective action documents for plant modification issues, including configuration management audits, to verify compliance with the corrective action program activities described in Chapter 11 of the license application. The scope of the corrective action review included outstanding design and operational issues for the processes selected for in-depth review.
- interviewed licensee staff to verify that system/responsible engineers had an adequate understanding of their assigned systems and the impact of selected modifications on the systems’ function

System Condition and Capability Review (IP Section 02.03)

For the selected modifications, the inspectors reviewed the system condition and tested capability to verify they were consistent with the applicable design requirements and licensing basis. Specifically, the inspectors conducted the inspection activities listed below:

- interviewed licensee subject matter experts in the areas of Fire protection, Area 600, Area 300 - 500, ISA, and criticality safety
- conducted plant walk-downs to verify whether the modifications were adequately implemented consistent with the configuration management packages
- conducted plant walk-downs to verify assumptions in the ISA or safety basis applicable to the modification were valid based on the actual configuration and operation of the modified processes

- interviewed a programmable logic controller subject matter expert and a fire protection expert, regarding the Area 600 IROFS to verify whether management measures were properly implemented to ensure that IROFS or other safety controls were available, capable, and reliable to perform their function when needed
- conducted plant walk-downs and reviewed operating procedures to verify that administrative controls that involve operator action could be accomplished as assumed in the licensee's ISA

Post-Modification Testing (IP Section 02.04)

For the selected modifications, the inspectors interviewed licensee staff and reviewed post-modification testing records to determine whether the plant was in a safe configuration during post-modification testing. The inspectors reviewed the following post-modification tests to determine whether post-modification testing ensured adequate implementation of the design and safety system functionality.

CO₂ Replacement in Building 303 with Fire Trace

- TP-JA0659, Installation Qualification/Operational Qualification (IQ/OQ) Test Criteria - Building 303 FireTrace System - FireTrace System Receipt Inspection
- TP-JA0659, IQ/OQ Test Criteria - Building 303 FireTrace System - FireTrace System Installation Checklist

Building 303, Area 300 - 500

- TP-JA0659-001, IQ Test Criteria B303 A300-500 Modernization
- TP-JA0659-002, OQ Test Criteria B303 A300-500 Modernization
- TP-JA0659-003, Performance Qualification Test Criteria B303 A300-500 Modernization

Building 303, Area 600

- SRE Test 303-PSL600700A

Documentation Review (IP Section 02.05)

The inspectors reviewed a sample of plant documents impacted by the modifications selected for review to verify the licensee had either updated or was in the process of updating such documents to reflect the modifications in accordance with the license application requirements and 10 CFR 70.72. The inspection sample included:

- FireTrace System Drawings:
 - 303-M4381-D, "Area 303, 300 Layout"
 - 303-M4150-D, "FireTrace Assembly Layout"
 - 303-M4382-D, "Area 303, 500 Layout"
- FireTrace post installation testing records
- FireTrace semi-annual inspection records
- SOP-401-03-303, "Area 300 Building 303"
- SOP-401-04-303, "Building 303 Area 400 - 500"
- SOP-401-04a-303, "Building 303 Area 400 Storage"
- IROFS and SREs for Building 303, Areas 300, 400, and 500

- 013-F0168-D, "BLDG 303 PSL 600 Feed Liquid Hydrogen System P&ID," Rev. F.
- IROFS 303-PSL600700A, "Items Relied on for Safety (IROFS) and Safety-Related Equipment (SRE) - Building 303 Areas PSL 600 and 700A," Rev. 6

INSPECTION RESULTS

No issues were identified.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On January 10, 2024, the inspectors presented the quarterly NRC Resident inspection results (IPs 88135) to Ronald Dailey and other members of the licensee staff.
- On October 26, 2023, the inspectors presented the triennial plant modifications (IP 88072) inspection results to Ronald Dailey and other members of the licensee staff.
- On December 14, 2023, the inspectors presented the NCS (IP 88015) inspection results to Ronald Dailey and other members of the licensee staff.

DOCUMENTS REVIEWED

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|---|--|---|------------------|
| 88015 | Calculations | SA-00178 | N303VALVFCV0B13 and N303VALVEBA0B01 (Criticality) | Rev. 4 |
| 88015 | Corrective Action Documents | PIRCS 98485, 93169, 93273, 93151, 92896, 92716, 92572, 92493 | NCS Corrective Action Program Entries | Various |
| 88015 | Corrective Action Documents Resulting from Inspection | PIRCS 98634 | NCS Corrective Action Program Entry | 12/14/2023 |
| 88015 | Engineering Evaluations | 21X-22-0004 | Waste Water Treatment Facility Integrated Safety Analysis Summary | Rev. 17 |
| 88015 | Engineering Evaluations | 21X-23-0004 | 300 Complex Support Systems Integrated Safety Analysis Summary | Rev. 17 |
| 88015 | Engineering Evaluations | 54T-12-0027 | Nuclear Criticality Safety Evaluation Waste Water Treatment Facility | Rev. 7 |
| 88015 | Engineering Evaluations | 54T-14-0023 | Addendum 1 to Nuclear Criticality Safety Evaluation Waste Water Treatment Facility | Rev. 0 |
| 88015 | Engineering Evaluations | 54T-14-0026 | Control Flowdown and Field Verification for Addendum 1 to Nuclear Criticality Safety Evaluation Waste Water Treatment Facility | Rev. 0 |
| 88015 | Engineering Evaluations | 54T-15-0007 | Control Flowdown and Field Verification for the Waste Water Treatment Facility | Rev. 9 |
| 88015 | Engineering Evaluations | 54T-18-0001 | Nuclear Criticality Safety Evaluation Utility Backflow Protection - Plant Air, Nitrogen, DI Water | Rev. 0 |
| 88015 | Engineering Evaluations | 54T-22-0001 | Nuclear Criticality Safety Evaluation 310 Warehouse | Rev. 3 |
| 88015 | Engineering Evaluations | 54T-22-0003 | Control Flowdown and Field Verification for Addendum 2 to the NCSE Waste Water Treatment Facility | Rev. 0 |
| 88015 | Engineering Evaluations | 54T-23-0010 | Control Flowdown and Field Verification For Building 310 Warehouse (including 310 Warehouse Storage operations and 310 Sample Packaging Area) | 11/30/2023 |
| 88015 | Engineering | 54X-22-0006 | Addendum 2 to the Nuclear Criticality Safety Evaluation | Rev. 0 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|-----------------------------|-------------------------|--------------------|---|-------------------------|
| | Evaluations | | Waste Water Treatment Facility | |
| 88015 | Engineering Evaluations | 54X-23-0003 | Nuclear Criticality Safety Evaluation for Area B (Building 302 and Building 303) of the Production Fuel Facility | Rev. 6 |
| 88015 | Engineering Evaluations | 54X-23-0004 | Control Flowdown and Field Verification for Area B (Building 302 and 303) | 06/29/2023 |
| 88015 | Miscellaneous | | Justification for Meeting the Intent of the Nuclear Criticality Safety Evaluations Function in the Nuclear Criticality Safety Engineer Qualification Program | 06/08/2023 |
| 88015 | Miscellaneous | FM-HS-CL-15-01 | Annual Inspection for Solids Accumulation at the Waste Water Treatment Facility | Completed 11/29/2022 |
| 88015 | Miscellaneous | FM-WST-058 | 310 WH Sample Packaging Area Mass Log | Reviewed 12/14/2023 |
| 88015 | Miscellaneous | N302VALVEHV0B01 | SRE Test for IROFS FAB-13 related valve | Completed 06/27/2023 |
| 88015 | Miscellaneous | N302VALVEHV0B38 | SRE Test for IROFS FAB-15 related valve | Completed 10/19/2023 |
| 88015 | Miscellaneous | N302VALVEHV0B39 | SRE Test for IROFS FAB-15 related valve | Completed 10/19/2023 |
| 88015 | Miscellaneous | N302VALVEHV0B85 | SRE Test for IROFS FAB-13 related valve | Completed 06/27/2023 |
| 88015 | Miscellaneous | N302XXXXLSHAW1 | SRE Test for IROFS UBP-2, -3, and -4 | Completed 12/02/2023 |
| 88015 | Miscellaneous | N302XXXXLSHNIA1 | SRE Test for IROFS UBP-5, -6, and -7 | Completed 12/02/2023 |
| 88015 | Procedures | NFS-CL-19-01 | Building 310 - Sample Packaging Area SLC | Rev. 13 |
| 88015 | Procedures | SOP 299 | Waste Water Treatment Facility | Rev. 27 |
| 88015 | Self-Assessments | NCS-2023-01 | Nuclear Criticality Safety Audit of the Nuclear Criticality Safety Evaluation for the 800-Gallon Liquid Discard Tanks (TANKXX-WF03/WF04 and TANKXX-WD01/WD02) | 01/16/2023 |
| 88015 | Self-Assessments | NCS-2023-05 | Fourth Nuclear Criticality Safety Audit of the Nuclear Criticality Safety Evaluation for the Vacuum Cleaner System Authorized for Use in Process Areas | 02/09/2023 |
| 88015 | Self-Assessments | NCS-2023-11 | Eleventh Nuclear Criticality Safety Audit of the Nuclear | 03/23/2023 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|-----------------------------|---|--------------------|---|-------------------------|
| | | | Criticality Safety Evaluation for Handling Fissile Material in Portable Containers | |
| 88015 | Self-Assessments | NCS-2023-17 | Eleventh Nuclear Criticality Safety Audit of Area D of the Uranium Recovery Facility | 10/18/2023 |
| 88072 | Corrective Action Documents | PIRCS 91525 | Building 302, G Area - Facility Configuration Information Assessment | 01/25/2023 |
| 88072 | Corrective Action Documents | PIRCS 92032 | Building 302, H Area - Facility Configuration Information Assessment | 03/21/2023 |
| 88072 | Corrective Action Documents | PIRCS 92795 | Building 302, J Area - Facility Configuration Information Assessment | 06/14/2023 |
| 88072 | Corrective Action Documents | PIRCS 93213 | Building 302, 400 Area - Facility Configuration Information Assessment | 07/27/2023 |
| 88072 | Corrective Action Documents | PIRCS 93592 | Building 304 - Facility Configuration Information Assessment | 08/28/2023 |
| 88072 | Corrective Action Documents | PIRCS 94977 | Building 302, 100 Area - Facility Configuration Information Assessment | 09/29/2023 |
| 88072 | Corrective Action Documents Resulting from Inspection | PIRCS 97166 | Electrical panel door found ajar | 10/24/2023 |
| 88072 | Corrective Action Documents Resulting from Inspection | PIRCS 97183 | FireTrace IROFS Semi-Annual Inspection Checklist performed on 9/18/2023 for Cylinder 81A was incomplete | 10/25/2023 |
| 88072 | Drawings | 013-F0168-D | BLDG. 303 PSL-600 Feed Liquid Hydrogen System P&ID | Rev. F |
| 88072 | Drawings | 303-F0108-D | Area 500/600 Piping and Instrumentation Diagram (Sht. 7) | Rev. L |
| 88072 | Engineering Changes | ECR 20200081-03 | Replace B303-A300 Gear Pumps and Controllers | 12/07/2021 |
| 88072 | Engineering Changes | ECR-20191628 | D&D of Process Equipment in Areas 600 & 700 located in Building 303 (mechanical isolations/removal) | Rev. 1 |
| 88072 | Engineering Changes | ECR-20200047 | Replace Asco Solenoid Valves with Air Actuated Swagelok Ball Valves | Rev. 0.0 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|-----------------------------|-------------------------|--------------------|---|-------------------------|
| 88072 | Engineering Changes | ECR-20200256 | Add Setpoint Analysis Numbers to IROFS lists | |
| 88072 | Engineering Changes | ECR-20201300 | PSL Low Flow Switches | Rev. 0.0 |
| 88072 | Engineering Evaluations | | NCSE for Utility Backflow Protection | Rev. 0 |
| 88072 | Engineering Evaluations | | Control Flowdown and Field Verification for Area 300/400 of the Production Fuel Facility | Rev. 2 |
| 88072 | Engineering Evaluations | | NCSE for Area 300/400 of the Production Facility | Rev. 2 |
| 88072 | Engineering Evaluations | | NCSE for Area 500 and Area 400 Discard Columns of the Production Facility | Rev. 2 |
| 88072 | Engineering Evaluations | 21T-12-0532 | Fire Protection Engineering Assessment Building 303, 600 PSL Furnace | Rev. 0 |
| 88072 | Engineering Evaluations | 21T-12-0687 | Building 303, Area PSL 600 Electrical Hazard Classification | Rev. 0 |
| 88072 | Engineering Evaluations | 21X-04-0099 | Fire Risk Evaluation 09 Building 303 600 Process Furnace Area Hydrogen Gas Fire & Explosion | Rev. 0 |
| 88072 | Engineering Evaluations | 21X-23-0024 | Fire Hazard Analysis Building 303 | Rev. 2 |
| 88072 | Engineering Evaluations | 54X-12-0019 | Nuclear Criticality Safety Evaluation for the PSL Area 600 and 700A Operations | Rev. 0 |
| 88072 | Engineering Evaluations | 71T-21-0541 | Verification and Validation of B303 A200-500 Modernization Changes | 05/04/2022 |
| 88072 | Engineering Evaluations | ECR 20200081-09 | Reroute B303 N ₂ Line | 01/13/2022 |
| 88072 | Engineering Evaluations | TP-JA0659-001 | Installation Qualification Test Criteria B303 A300-500 Modernization | 07/21/2023 |
| 88072 | Engineering Evaluations | TP-JA0659-002 | Operational Qualification Test Criteria B303 A300-500 Modernization | Rev. 0 |
| 88072 | Miscellaneous | | IROFS and SREs for Building 303 300, 400, and 500 | Rev. 17 |
| 88072 | Miscellaneous | | Area 600 PSL Furnace Functional Design Specification | Rev. 3 |
| 88072 | Miscellaneous | | FireTrace Automatic Fire Suppression Systems, Design Installation, Operation, and Maintenance Manual for Pre- | |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
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| | | | Engineered Automatic Indirect Foam Extinguisher Unit | |
| 88072 | Miscellaneous | | 303 PSL 600 Hydrogen Detection Functional Design Specification | Rev. 0 |
| 88072 | Miscellaneous | IAC 897 | CO ₂ Replacement | 09/30/2020 |
| 88072 | Miscellaneous | P/N 800009 | FireTrace Automatic Fire Suppression Systems, Design Installation, Operation, and Maintenance Manual for Pre-Engineered Automatic Indirect Foam Extinguisher unit | |
| 88072 | Procedures | NFS-CM-004 | NFS Change Control Process | Rev. 23 |
| 88072 | Procedures | NFS-CM-004-01 | Preparation of Change Control Package Documentation | Rev. 1 |
| 88072 | Procedures | NFS-CM-004-02 | Inconsequential and Temporary Change Evaluation | Rev. 1 |
| 88072 | Procedures | NFS-CM-005 | NFS Change Control Board | Rev. 7 |
| 88072 | Procedures | NFS-GH-901 | Configuration Management Program | Rev. 24 |
| 88072 | Procedures | SOP-401-03-303 | Area 300 Building 303 | Rev. 23 |
| 88072 | Procedures | SOP-401-04-303 | Building 303 Area 400 - 500 | Rev. 20 |
| 88072 | Procedures | SOP-401-04A | Building 303 Area 400 Storage | Rev. 15 |
| 88072 | Work Orders | 264343 | Modify PLC program per ECR | 10/08/2018 |
| 88135.02 | Corrective Action Documents | 96114 | | |
| 88135.02 | Corrective Action Documents | 96115 | | |
| 88135.02 | Corrective Action Documents | 97175 | | |
| 88135.02 | Corrective Action Documents | 98319 | | |
| 88135.02 | Corrective Action Documents | 98320 | | |
| 88135.02 | Corrective Action Documents | 98321 | | |
| 88135.02 | Corrective Action Documents | 98325 | | |
| 88135.02 | Corrective Action Documents | 98328 | | |
| 88135.02 | Corrective Action Documents | 98336 | | |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
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| 88135.02 | Corrective Action Documents | 98563 | | |
| 88135.02 | Corrective Action Documents | 98570 | | |
| 88135.02 | Corrective Action Documents | 98634 | | |
| 88135.02 | Procedures | NFS-HS-E-02 | Emergency Criticality Evacuation | Rev. 051 |
| 88135.02 | Procedures | NFS-HS-E-04 | Fire Reporting and Response | Rev. 043 |
| 88135.02 | Procedures | NFS-HS-E-15 | Emergency Medical Response | Rev. 022 |
| 88135.05 | Miscellaneous | Investigation 34255 | | |