



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

January 28, 2014

Mr. Joseph G. Henry  
President  
Nuclear Fuel Services, Inc.  
P. O. Box 337, MS 123  
Erwin, TN 37650

SUBJECT: NUCLEAR REGULATORY COMMISSION INTEGRATED INSPECTION REPORT  
NUMBER 70-143/2013-005

Dear Mr. Henry:

This refers to the inspections conducted from October 1, 2013, to December 31, 2013, at the Nuclear Fuel Services (NFS) facility in Erwin, TN. The purpose of these inspections was to determine whether activities authorized under the license were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. The enclosed report presents the results of these inspections. The findings were discussed with you and members of your staff at exit meetings held on October 31, 2013, and January 10, 2014.

During these inspections, the NRC staff examined activities conducted under your license as they related to public health and safety and to confirm compliance with the Commission's rules and regulations, and with the conditions of your license. Areas examined during the inspections are identified in the enclosed report. Within these areas, the inspections consisted of selected examinations of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of these inspections, no cited violations or deviations were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

J. Henry

2

Should you have any questions concerning these inspections, please contact us.

Sincerely,

**/RA/**

James A. Hickey, Chief  
Projects Branch 1  
Division of Fuel Facility Inspection

Docket No. 70-143  
License No. SNM-124

Enclosure:  
NRC Inspection Report 70-143/2013-005  
w/Attachment: Supplemental Information

cc: (See page 3)

J. Henry

2

Should you have any questions concerning these inspections, please contact us.

Sincerely,  
**/RA/**

James A. Hickey, Chief  
Projects Branch 1  
Division of Fuel Facility Inspection

Docket No. 70-143  
License No. SNM-124

Enclosure:  
NRC Inspection Report 70-143/2013-005  
w/Attachment: Supplemental Information

cc: (See page 3)

**DISTRIBUTION:**

PUBLIC

N. Baker, NMSS  
J. Hickey, RII  
R. Johnson, NMSS  
N. Peterka, RII  
K. Ramsey, NMSS  
C. Stancil, RII  
C. Taylor, RII  
NFS Website

☒ PUBLICLY AVAILABLE      ☐ NON-PUBLICLY AVAILABLE      ☐ SENSITIVE      ☒ NON-SENSITIVE  
ADAMS: ☒ Yes      ACCESSION NUMBER: ML14028A071      ☒ SUNSI REVIEW COMPLETE      ☒ FORM 665 ATTACHED

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI			
SIGNATURE	/RA/ via email	/RA/ via email	/RA/	/RA/			
NAME	CStancil	NPeterka	RRussell	DHartland			
DATE	1/23/2014	1/23/2014	1/24/2014	1/27/2014	1/ /2014	1/ /2014	1/ /2014
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY      DOCUMENT NAME: G:\DFFI\REPORTS\DRAFT INSPECTION REPORT FOLDER\NFS\2013  
FEEDERS\NFS IR 2013-005.DOCX

cc:

Joel Duling  
Director, Operations  
Nuclear Fuel Services, Inc.  
Electronic Mail Distribution

Richard A. Freudenberger  
Safety & Safeguards Director  
Nuclear Fuel Services, Inc.  
Electronic Mail Distribution

Debra G. Shults  
Director, TN Dept. of Environment & Conservation  
Electronic Mail Distribution

Doris D. Hensley  
Mayor, Town of Erwin  
211 N. Main Avenue  
P.O. Box 59  
Erwin, TN 37650

Gregg Lynch  
Mayor, Unicoi County  
P.O. Box 169  
Erwin, TN 37650

Johnny Lynch  
Mayor, Town of Unicoi  
P.O. Box 169  
Unicoi, TN 37692

George Aprahamian  
Manager, Program Field Office – NFS  
Knolls Atomic Power Laboratory  
1205 Banner Hill Rd  
Erwin, TN 37650

U. S. NUCLEAR REGULATORY COMMISSION  
REGION II

Docket No.: 70-143

License No.: SNM-124

Report No.: 70-143/2013-005

Licensee: Nuclear Fuel Services, Inc.

Facility: Erwin Facility

Location: Erwin, TN 37650

Dates: October 1 through December 31, 2013

Inspectors: C. Stancil, Senior Resident Inspector  
N. Peterka, Acting Resident Inspector  
R. Russell, Fuel Facility Inspector

Approved by: J. Hickey, Chief  
Projects Branch 1  
Division of Fuel Facility Inspection

Enclosure

## **EXECUTIVE SUMMARY**

Nuclear Fuel Services (NFS), Inc.  
NRC Integrated Inspection Report 70-143/2013-005  
October 1 – December 31, 2014

Inspections were conducted by the resident and regional inspectors during normal and off-normal hours in the areas of safety operations, radiological controls, and facility support. The inspectors performed a selective examination of licensee activities which were accomplished by direct observation of safety-significant activities and equipment, tours of the facility, interviews and discussions with licensee personnel, and a review of facility records.

### **Safety Operations**

- Plant operations were performed safely and in accordance with license requirements (Paragraph A.1).
- Nuclear criticality safety controls were followed throughout the facility (Paragraph A.2).
- Fire safety program was adequately implemented in accordance with license and regulatory requirements (Paragraph A.3).

### **Radiological Controls**

- The licensee adequately implemented the radiation protection program consistent with the license and regulatory requirements (Paragraph B.1).
- The NRC reviewed the results of the NRC independent analysis of surface water samples and determined that the results were within regulatory requirements (Paragraph B.2).
- The Radiation Protection program was implemented in accordance with the license application and regulatory requirements (Paragraph B.3).

### **Facility Support**

- The Configuration Management program was implemented in accordance with license requirements (Paragraph C.1).
- Adverse conditions were adequately identified, evaluated, and entered into the corrective action program (Paragraph C.2).

### **Attachment:**

Key Points of Contact  
List of Items Opened, Closed, and Discussed  
List of Inspection Procedures Used  
Documents Reviewed

## **REPORT DETAILS**

### **Summary of Plant Status**

The facility began the inspection period with the following process areas operating: 1) Naval fuel manufacturing facility (FMF); 2) Blended Low Enriched Uranium (BLEU) Preparation Facility (BPF) which included the Uranium (U)-Oxide, U-Metal, Solvent Extraction (SX), and the down-blending (DB) lines.

#### **A. Safety Operations**

##### **1. Plant Operations Routine (Inspection Procedure (IP) 88135)**

###### **a. Inspection Scope and Observations**

The inspectors performed routine tours of plant operating areas housing special nuclear material (SNM) and determined that equipment and systems were operated safely and in compliance with the license. Daily operational and shift turnover meetings were observed throughout the period to gain insights into process safety and operational issues. The inspectors reviewed selected licensee-identified issues and corrective actions for previously identified issues. These reviews focused on plant operations, safety-related equipment (valves, sensors, instrumentation, in-line monitors, and scales) and items relied on for safety (IROFS).

The routine tours included walk-downs of the BPF, commercial development line, FMF, storage areas, and the 234 building. The inspectors verified that there was adequate staffing and that operators were attentive to their duties and knowledgeable of the status of alarms and annunciators. The inspectors observed activities during normal and upset conditions for compliance with procedures and station limits. The inspectors noted that safety controls were in place and functional to ensure proper control of SNM. The inspectors verified the adequacy of communications between supervisors and operators within the operating areas. The inspectors walked down portions of safety-significant operating systems and verified that IROFS were identified and operable. The inspectors reviewed operator log books, maintenance records, and Letters of Authorization (LOA; temporary procedures) to obtain information concerning operating trends and activities. The inspectors verified that the licensee actively pursued corrective actions for conditions requiring temporary modifications and that required compensatory measures were prescribed and implemented as required.

The inspectors performed periodic tours of the outlying facility areas and determined that equipment and systems were operated safely and in compliance with the license. Inspectors focused on potential wind-borne missile hazards, potential fire hazards with combustible material storage and fire loading, hazardous chemical storage, storage of compressed gas containers, and potential degradation of plant security features. In addition, inspectors walked down the licensee's emergency response facilities for familiarization and to ensure the facilities were maintained in a readily available status. During these tours, the inspectors also verified that required Notices to Employees were appropriately and conspicuously posted in accordance with 10 Code of Federal Regulations (CFR) Part 19.11.

The inspectors attended various plan-of-the-day meetings throughout the inspection period in order to determine the overall status of the plant. The inspectors evaluated the adequacy of the licensee's response to significant plant issues as well as their approach to solving various plant problems.

#### Safety System Walk-down

The inspectors performed walk-downs of safety-significant systems involved with the processing of SNM. As part of the walk-downs, inspectors verified as-built configurations matched approved plant drawings. The inspectors interviewed operators to confirm that plant personnel were familiar with the assumptions and controls associated with these IROFS systems and instrumentation for maintaining plant safety. The inspectors also verified that IROFS assumptions and controls were properly implemented in the field. The inspectors reviewed the related Integrated Safety Analyses (ISA) to verify system abilities to perform functions were not affected by outstanding design issues, temporary modifications, operator workarounds, adverse conditions or other system-related issues. The inspectors also verified that there were no conditions that degraded plant performance, the operability of IROFS, safety-related devices, or other support systems essential to safety system performance. The following process areas and/or systems were included:

- Building 302 Area 300
- Buildings 302 and 303 Area 900
- Building 303 Product Support Line (PSL) Furnace
- Process Instrumentation Out-of-Calibration Program

To determine the correct system alignment, the inspectors reviewed procedures, drawings, related ISAs, and regulatory requirements such as 10 CFR Part 70.61. During the walk-downs, the inspectors verified all or some of the following as appropriate:

- Controls in place for potential criticality and chemical safety hazards;
- Process vessel configurations maintained in accordance with Nuclear Criticality Safety Evaluations (NCSEs);
- Correct valve position and potential functional impacts such as leakage;
- Electrical power availability;
- Major system components correctly aligned, labeled, lubricated, cooled, and ventilated;
- Hangers and supports correctly installed and functional;
- Lockout/tagout program appropriately implemented;
- Cabinets, cable trays, and conduits correctly installed and functional;
- Visible cabling in good material condition; and
- No interference of ancillary equipment or debris with system performance.

#### b. Conclusion

No findings of significance were identified.



2. Criticality Safety (IP 88135)

a. Inspection Scope and Observations

During daily production area tours, the inspectors verified various criticality controls to be in place, that personnel followed criticality station limit cards, and that containers were adequately controlled to minimize potential criticality hazards. The inspectors sampled a number of criticality-related IROFS for operability and for adequate identification in the field as well as on drawings. The inspectors noted that operators were knowledgeable of the requirements associated with IROFS. Specific areas included Area 900 in both 302 and 303 Buildings and Area 300.

The inspectors performed tours inside various process areas when restrictions on SNM movements were in effect.

b. Conclusion

No findings of significance were identified.

3. Fire Protection Quarterly (IP 88135)

a. Inspection Scope and Observations

During routine plant tours, the inspectors verified that transient combustibles were being adequately controlled and minimized in all process areas. Various fire barriers and doors were examined and found to be properly maintained and functional in accordance with site procedures. The inspectors reviewed active fire impairments within the process areas and determined they were implemented per site procedure.

b. Conclusion

No findings of significance were identified.

**B. Radiological Controls**

1. Radiation Protection Quarterly (IP 88135)

a. Inspection Scope and Observations

During tours of the production areas, inspectors observed radiation protection controls and practices implemented during various plant activities including the proper use of personnel monitoring equipment, required protective clothing, and frisking methods for detecting radioactive contamination on individuals exiting contamination controlled areas.

The inspectors noted that plant workers properly wore dosimetry and used protective clothing in accordance with applicable Radiation Work Permits (RWPs). The inspectors also noted that radiation area postings complied with plant procedures and included radiation maps with up-to-date radiation levels. The inspectors monitored the operation of radiation protection instruments and verified calibration due dates.

b. Conclusion

No findings of significance were identified.

2. Environmental Protection (IP 88135)

a. Inspection Scope and Observations

The NRC inspectors reviewed the 5<sup>th</sup> quarterly independent sampling results collected by Oak Ridge Associated University (ORAU) on August 21, 2013 and compared the data to the licensee's sampling results for samples collected on the same day. The NRC and the licensee conducted split samples for surface water at four locations. The sampling locations correspond to locations on the Nolichucky River and Martin's Creek that were upstream and downstream of the facility.

The NRC inspectors verified that the results for NRC independent sampling and the licensee sampling were less than the investigation levels stated in NFS-HS-A-54, Effluent Control and Environmental Monitoring Action Levels and MDC Requirements. The analytical results for the surface water samples are shown in Figure 1. The measurement uncertainty and the minimum detectable concentration (MDC) values are also reported for each analysis.

*Figure 1: The NRC and licensee sampling results for gross alpha and gross beta analysis in local surface water taken on August 21, 2013.*

Sampling Location	Analysis	NRC (ORAU)			NFS		
		Result pCi/L	Uncertainty pCi/L	MDC pCi/L	Result pCi/L	Uncertainty pCi/L	MDC pCi/L
Nolichucky River Upstream	Gross Alpha	0.22	0.12	0.18	0.049	0.46	1.87
	Gross Beta	1.52	0.20	0.27	1.02	0.46	1.45
Nolichucky River Downstream	Gross Alpha	0.23	0.12	0.18	0.57	0.51	1.83
	Gross Beta	1.31	0.19	0.27	0.15	0.61	2.21
Martin's Creek Upstream	Gross Alpha	0.12	0.10	0.17	-0.51	0.37	1.90
	Gross Beta	1.08	0.18	0.27	0.14	0.46	1.65
Martin's Creek Downstream	Gross Alpha	1.22	0.21	0.21	2.46	0.76	1.99
	Gross Beta	1.96	0.21	0.27	2.58	0.69	2.00

The NRC and the licensee also conducted the additional split samples for surface water on November 20, 2013. The results will be reviewed and documented in the next quarterly report.

b. Conclusion

No findings of significance were identified.

3. Radiological Protection (IP 88030)

a. Inspection Scope and Observations

The inspectors reviewed internal radiation protection program focus area audits, inspections, and self-assessments to ensure the licensee reviewed the program's implementation at least annually to comply with 10 CFR 20.1101. The inspectors reviewed program documents, interviewed the licensee staff, and observed on-going work and determined the radiation protection program functioned independently from operations.

The inspectors toured a selection of the radiological controlled areas and verified that radiological signs and postings accurately reflected radiological conditions within the posted area. The inspected areas were posted in accordance to 10 CFR Part 20. The inspectors observed radiological worker dress-out training and practical exercises and determined the workers were sufficiently trained in radiation protection practices as related to their jobs.

The inspectors observed radiological technicians performing surveys and reviewed periodic survey records for various plant areas. The inspectors determined the surveys adequately evaluated the magnitude and extent of radiation levels in accordance with 10 CFR 20.1501 and were performed at the frequency specified in the license. The inspectors reviewed work support survey records, special radiological work permits, and observed radiological controls for a selection of ongoing work and determined the work was performed using the appropriate radiological controls.

The inspectors reviewed a selection of problem identification reports for events involving unplanned contamination in order to evaluate the licensee's corrective actions. The inspectors opened an unresolved item (URI) related to the reporting of unplanned medical treatment at a medical facility involving potential contamination.

Introduction: The inspectors identified a URI involving the reporting of events in accordance with 10 CFR 70.50(b)(3) for two separate incidents where workers were injured and transported off-site for required medical treatment with reported potential contamination on their clothing or body.

Description: On October 17, 2013, a security officer, while patrolling in the process radiological controlled area, experienced a medical emergency and lost consciousness. He was found to have contamination on his clothing, so the section of clothing was removed. He was transported offsite by ambulance to the local community hospital for treatment along with health physics staff. Initially, the licensee reported contamination was found on the officer's clothing at the hospital, but on further analysis, the licensee reported detectable transferrable contamination was not found.

On October 29, 2013, a maintenance mechanic, while climbing down a ladder off a roof, lost his grip and fell to the lower roof breaking his leg. The worker had just completed work involving checking and cleaning monitoring probes on the air effluent stacks. The worker was found to have contamination on a lower leg of his coveralls, so the section was removed, and then he was found to have contamination on the underlying skin. He was transported offsite by ambulance to the regional medical center for treatment along with health physics staff. The licensee reported no contamination was found on the mechanics skin or coveralls at the hospital, but the smear results on the hospital floor indicated the presence of removable contamination. At the time of the radiation protection exit meeting, the licensee evaluated the contamination as naturally occurring radioactive material.

The inspectors opened URI 70-143/2013-005-01, Unplanned Medical Treatment Reporting, to allow time for the licensee to provide the survey results and data to the NRC. The NRC will review the results to determine if required 24-hour reports should have been made to notify the NRC for events that required unplanned medical treatment at a medical facility for an individual contaminated with radioactive materials.

b. Conclusion

No findings of significance were identified. One URI was opened to allow the review and evaluation of two separate events requiring offsite medical emergency services of potentially contaminated workers.

**C. Facility Support**

1. Permanent Plant Modifications (IP 88135)

a. Inspection Scope and Observations

The inspectors reviewed records, work packages and supporting documentation associated with the below listed design modifications, including associated 10 CFR 70.72 screenings, against system design bases documentation to verify that the modifications had not affected system operability or availability. The inspectors reviewed licensee procedures NFS-CM-001, Configuration Management, and NFS-WM-001, Control and Execution of Work, and selected ongoing and completed work activities to verify that installation was consistent with the design control documents and requirements. The inspectors verified that operational details associated with the modifications had been incorporated into appropriate operating procedures. The inspectors performed field observations with licensee personnel to verify that the as built configuration was in accordance with design documents. Inspectors observed construction and testing activities associated with the modifications, and assessed the impact on interfacing operating systems. The inspectors observed the systems in operation and verified control panel displays including process and alarm status. Local and remote instrumentation were verified to be operable and clearly visible to personnel. Licensee personnel demonstrated the operational features of the systems and were

knowledgeable of alarm settings and system functions. The inspectors verified that training had been provided to operators concerning the purpose and function of the systems and alarm response actions.

- ECR-20130477, Change valve A321 from 4254 to 42GS4 Swagelok valve located in Building 302 Area 300.
- ECR-20110550/20121301-04, Add lighting on ENCLOS-0301 in Buildings 302 and 303 Area 300.
- ECR-20121006, Remove (3) Three small doors on ENCLOS-0301 and replace with (1) one large door
- ECR-20130922, Change Filters utilizing SCYIRFG12H4 to PPSIOU-314
- ECR-20120435, Install Inline Electric water heater in Area 300
- ECR-20130977, Plant Air Equipment Replacement including Compressor #1, Air Dryers, and Installation of a Temporary Backup Compressor and Second Set of Safety Related Pressure Regulators per Work Request 216579

b. Conclusion

No findings of significance were identified.

2. Corrective Action Program Review (CAP) (IP 88135)

a. Inspection Scope and Observations

The inspectors reviewed the licensee's CAP to ensure that items adverse to safety were being identified and tracked to closure. The inspectors also performed daily screenings of items entered into the CAP to aid in the identification of repetitive equipment failures or specific human performance issues for follow-up. The inspectors reviewed CAP entries that occurred during the inspection period to assess and evaluate the safety significance of issues. Furthermore, inspectors conducted periodic reviews of licensee audits and third-party reviews of safety significant processes to determine their effectiveness and whether the licensee entered results into their CAP. For this reporting period, inspectors reviewed the licensee's Integrated Safety Analysis and Management Measures audits and the third-party assessment of their Employee Concern Program.

b. Conclusion

No findings of significance were identified.

**D. Exit Meeting**

The inspection scope and results were presented to members of the licensee's staff at various meetings throughout the inspection period and on October 31, 2013, and January 10, 2014, to J. Henry and his staff. No dissenting comments were received from the licensee. Proprietary and classified information was discussed but not included in the report.

## **SUPPLEMENTARY INFORMATION**

### **1. KEY POINTS OF CONTACT**

<u>Name</u>	<u>Title</u>
S. Barron	Emergency Preparedness Manager
C. Brown	MC&A Department Section Manager
T. Coates	Senior Advisory Engineering Section Manager
B. Cooper	Industrial Safety Unit Manager
R. Dailey	Engineering Director
M. Dotson	Work Management Section Manager
R. Droke	Senior Regulatory Advisor
J. Duling	Operations Director
M. Elliott	Safety & Safeguards Director (outgoing)
R. Freudenberger	Safety & Safeguards Director (incoming)
J. Henry	President
R. Holly	Environmental Safety Unit Manager
N. Kenner	Safety Culture Improvement Section Manager
M. McKinnon	Operations Section Manager
M. Moore	Environmental Protection & Industrial Safety Section Manager
C. Morie	Decommissioning Environmental Unit Manager
J. Nagy	Nuclear Safety Officer Chief
L. Sanders	Corrective Action Program Manager
R. Shackelford	Nuclear Safety & Licensing Section Manager
M. Tester	Radiation Protection Unit Manager
K. Weir	Security Section Manager
J. Wheeler	Project Engineering Section Manager

### **2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Opened

70-143/2013-005-01      URI      Unplanned Medical Treatment Reporting (Paragraph B.3)

### **3. INSPECTION PROCEDURES USED**

88030	Radiation Protection
88135	Resident Inspection Program For Category I Fuel Cycle Facilities

### **4. DOCUMENTS REVIEWED**

#### Procedures:

NFS-CM-004, NFS Change Control Process, Revision (Rev.) 13  
NFS-ECP-003, Employee Concerns Program, Rev. 1  
NFS-GH-03, Safety Work Permits, Revision 16  
NFS-GH-901, Configuration Management, Rev. 17  
NFS-HS-A-16, Safety Audits, Assessments, and Inspections, Rev. 14  
NFS-HS-A-25, Inspection of Emergency Supplies, Rev. 11  
NFS-HS-A-68, ISA Risk Assessment Procedure

NFS-HS-B-40, Inspecting Emergency Equipment and Supplies, Rev. 25  
 NFS-OPS-001, Conduct of Operations, Rev. 4  
 NFS-Q-178, Quality Assurance Audit Procedure, Rev. 7  
 NFS-WM-001, Control and Execution of Work, Rev. 4  
 SOP 355, Handling of Bulk Chemicals  
 SOP 401-03-302, Area 300-302, Rev. 44  
 SOP 401-9A, Area 900 Sublot Preparation  
 SOP 401-15B-302, Area 300/400/500 Process Cleaning, Bldg. 302, Rev. 13  
 SOP 401-15G, Area 900 Cleaning Checklist  
 SRE Test N302HS2903XAL15, Bulk Alcohol Supply  
 SRE Test N302WIRES33ZON4, Protectowire for Bldg. 302, Enclosure 2901

Records:

54T-13-0019, Nuclear Criticality Safety Evaluation for the Dissolution of Uranium and High Enriched Uranium Storage Columns  
 Audit of Radiological Monitoring and Surveillance Program, 2<sup>nd</sup> Quarter 2013, dated June 26, 2013  
 Audit of Radioactive Gaseous and Liquid Effluent Monitoring, 3<sup>rd</sup> Quarter 2012, dated October 4, 2012  
 ECR-20131089, Addition of Isolation Valve to Compressed Air Line of Solenoid Valve GA-AL15  
 ECR-20130977, Plant Air Equipment Replacement  
 First Quarter 2013, Health Physics Audit of the Contamination Control Program, dated March 28, 2013  
 First Quarter 2013, Health Physics Audit of the Radiation Worker Training Program, dated March 12, 2013  
 Fourth Quarter 2012, Health Physics Audit of the Internal Dosimetry Program, dated December 3, 2012  
 Functional Design Specification for SRE N303X600MAXONS and SRE N303CTRL600MAXN  
 Items Relied on For Safety (IROFS) and Safety-Related Equipment (SRE) – Bldg. 302 Process Areas 300, 400 and 500  
 Integrated Safety Analysis Quality Assurance Audit QA-13-16  
 Letter of Authorization LOA-ENG-13-008, Tie-Ins and Testing Associated with the Plant Air Equipment Replacement Project – JA0329  
 Letter of Authorization LOA-2210T-012, Initial Startup and Testing of PSL 600  
 Letter of Authorization LOA-2210T-007, PSL 600 Combustible Gas Limited Testing  
 Letter from Coates to Quillen, Utility Pressures, dated March 25, 2010  
 Letter from Dailey to Senior Engineering Watch Group, Plant Superintendent Group, Work Control, SEW Review of FWP, dated September 13, 2013  
 Monthly Health Physics Inspection Records, dated October 2012 through August 2013  
 NFS-HS-A-24, Attachment A - Quarterly Emergency Checklist, dated September 30, 2013  
 NFS-HS-A-24, Attachment B – Quarterly Hospital Emergency Room Inventory, dated September 27, 2013  
 NFS-HS-A-24, Attachment C – Monthly Emergency Communication Checklist, dated September 30, 2013  
 NFS-HS-B-40, Attachment A – Emergency Shelter (Building 350), dated September 9, 2013  
 NFS-HS-B-40, Attachment B – Security Posts Equipment Checklist, dated September 3, 2013, September 9, 2013, September 10, 2013  
 NFS-HS-B-40, Attachment C - Emergency Control Center, (Building 320), dated September 9, 2013

NFS-HS-B-40, Attachment D – Emergency Response Vehicle Equipment Checklist, dated September 9, 2013  
 NFS-HS-B-40, Attachment E – Emergency Monitoring Supply Center Checklist (EMSC), dated September 3, 2013  
 NFS-HS-B-40, Attachment F – Chemical Spill Supply Checklist (Bulk Chemical), dated September 3, 2013  
 NFS-HS-B-40, Attachment G – First Aid Room Jump Box Inventory Kit (Building 100), dated September 3, 2013  
 NFS-HS-B-40, Attachment H – Main Assembly Area First Aid Jump Box Inventory Kit, dated September 3, 2013  
 NFS-OPS-001, Conduct of Operations Attachment IV, SRE Functionally Not Demonstrated by Testing, dated September 13, 2013  
 Nuclear Fuel Services Employee Concerns Program External Assessment, dated November 8, 2013  
 Operational Decision Making Issue (ODMI), New Plant Compressed Air Regulators OPR-TB-SEP13-09, Toolbox Training, SOP 355 Rev. 18 Changes  
 SNM-124 Management Measure: Maintenance of Items Relied on For Safety, Quality Assurance Audit QA-13-06  
 Special SWP # 15413  
 Special SWP #15331  
 SRE Test NEB2XXXXPCVA32, Plant Air Regulators, dated August 31, 2013  
 Standard SWP # 13-12-012  
 Triennial Radiation Protection Program Audit, March 26 through April 13, 2012  
 Work Request (WR) # 216579, Plant Air Equipment Replacement  
 WR # 212754  
 WR # 205522  
 WR # 209939  
 WR # 213047  
 WR # 215933

P&IDs:

302-F0114-D, Area 300 Piping and Instrumentation Diagram (P&ID) Sheet 1  
 302-F0115-D, Area 300 P&ID Sheet 2  
 303-F0109-D, Area 900A P&ID  
 303-F0110-D, Area 900 P&ID Sheet 1  
 303-F0902-D, PSL Area 600 Furnace P&ID (Sheet 2 of 3) FRNCOV-S600

Problem Identification Resolution and Correction System (PIRCS):

PIRC: 40949, 41035, 41066, 41107, 41177, 41132, 41180, 41566, 41586,  
 PIRC 40988, Missed PMT, SRE Test of Bulk Chemical Actuator Valve  
 PIRC 40996, Bulk Chemical SRE Test Issues  
 PIRC 41085, Two Additional SRE Tests Affected by Bulk Chemical Solenoid Valve Change  
 PIRC 41542, Missing Valve Tag for BA-1907  
 PIRC 41712, Numerous Issues with NRC Walkdown of Area 900  
 PIRC 41869, P&ID Labeling differences in 302 Area 300  
 PIRC 42128, Observations of ECR Forms  
 PIRC 42168, Loss of Plant Air due to Loud Noise and Compressor Failure to Run  
 PIRC 42175, Plant Air Pressure Too High