



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

July 28, 2015

EN 50954
EN 50748

Mr. Joel W. Duling
President
Nuclear Fuel Services, Inc.
P. O. Box 337, MS 123
Erwin, TN 37650

**SUBJECT: U. S. NUCLEAR REGULATORY COMMISSION INTEGRATED INSPECTION
REPORT NUMBER 70-143/2015-003 AND NOTICE OF VIOLATION**

Dear Mr. Duling:

This refers to the inspections conducted from April 1 to June 30, 2015, 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 the inspections. The findings were discussed with members of your staff at exit meetings held on May 7, June 18, July 9, and July 23, 2015.

During the inspections, 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 examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of these inspections, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at (<http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>).

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it is described in detail in the subject inspection report. The violation is being cited in the Notice because it is considered self-revealing and was not identified by the licensee.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

If you contest this violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to: (1) the Regional Administrator, Region II; (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and (3) Charlie Stancil at the Nuclear Fuels Services facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter and its enclosures 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>.

Should you have any questions concerning these inspections, please contact David Hartland of my staff at 404-997-4722.

Sincerely,

D. Hartland for

Marvin D. Sykes, Chief
Projects Branch 1
Division of Fuel Facility Inspection

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

Enclosures:

1. Notice of Violation
2. NRC Inspection Report 70-143/2015-003
w/Attachment: Supplementary Information

cc: (See page 4)

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D. Hartland for
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PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE
 ADAMS: Yes ACCESSION NUMBER:ML15209A728 SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	NMSS	RII:DFFI	RII:DFFI
SIGNATURE	DHartland for	DHartland for	/RA/	/RA/	/RA/	/RA/	/RA/
NAME	MToth	NPeterka	DHartland	NPitoniak	TSippel	JMunson	CRivera-Crespo
DATE	7/28/2015	7/28/2015	7/28/2015	7/13/2015	7/9/2015	7/15/2015	7/27/2015
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
OFFICE	RII:DC	RII:DCI					
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NAME	MCrespo	SSmith					
DATE	7/27/2015	7/28/2015	7/ /2015	7/ /2015	7/ /2015	7/ /2015	7/ /2015
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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Letter to Mr. Joel W. Duling from Marvin D. Sykes dated July 28, 2015

SUBJECT: U. S. NUCLEAR REGULATORY COMMISSION INTEGRATED INSPECTION
REPORT NUMBER 70-143/2015-003 AND NOTICE OF VIOLATION

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NFS Website

NOTICE OF VIOLATION

Nuclear Fuel Services, Inc.
Erwin, Tennessee

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

During an NRC inspection conducted April 14 through May 26, 2015, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Safety Condition 01 of Special Nuclear Material (SNM) License SNM-124, states, in part, that procedures be established and used in accordance with the statements, representations, and conditions in the application.

Chapter 11 of the NFS license application, Management Measures, Section 11.4, "Procedure Development and Implementation," states, in part, that activities involving the handling of SNM are conducted in accordance with written procedures as defined in Section 11.4.1, "Operating Procedures." Section 11.4.1, Operating Procedures, defines, in part, operating procedures as documents written to authorize the processing of radioactive material; and within these documents, instructions for disposition of radioactive wastes.

Licensee procedure Standard Operating Procedure (SOP)-401-17, Fuel Manufacturing Facility (FMF) Cleaning, Revision 7, contained procedural guidance for handling potentially contaminated waste. The procedure contained guidance on how items are to be rinsed and dried prior to being placed into approved containers to minimize the potential for an unplanned chemical reaction from non-compatible cleaning materials.

Contrary to the above, prior to the event on April 4, 2015, the licensee failed to ensure that procedure SOP-401-17, FMF Cleaning, Revision 7, contained inadequate instructions for disposition of radioactive wastes, specifically for handling radioactive waste contaminated with non-compatible cleaning materials. As a result, an unplanned and uncontrolled chemical reaction occurred within an unoccupied storage area. If a worker(s) had been present in the area at the time of the event, there existed the potential of a radiological or chemical consequence to the worker(s) that would be of low safety significance. The potential safety significance of the event was determined by licensee staff and independently verified by the NRC.

This is a Severity Level IV violation. (Section D.1.d)

Pursuant to the provisions of 10 CFR 2.201, Nuclear Fuel Services, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation"; and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for

Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response 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> to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

If Classified Information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR Part 95.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 28th day of July 2015

U. S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No.: 70-143

License No.: SNM-124

Report No.: 70-143/2015-003

Licensee: Nuclear Fuel Services, Inc.

Facility: Erwin Facility

Location: Erwin, TN 37650

Dates: April 1 through June 30, 2015

Inspectors: C. Stancil, Senior Resident Inspector
M. Toth, Acting Senior Resident Inspector
D. Hartland, Senior Fuel Facility Project Inspector
S. Smith, Senior Construction Inspector
N. Peterka, Fuel Facility Inspector
J. Munson, Fuel Facility Inspector
N. Pitoniak, Fuel Facility Inspector
C. Rivera-Crespo, Fuel Facility Inspector
T. Sippel, Fuel Facility Inspector

Approved by: M. Sykes, Chief
Projects Branch 1
Division of Fuel Facility Inspection

EXECUTIVE SUMMARY

Nuclear Fuel Services (NFS), Inc.
NRC Integrated Inspection Report 70-143/2015-003
April 1 – June 30, 2015

Inspections were conducted by resident and regional inspectors during normal and off-normal hours in safety operations, radiological controls, facility support, and other areas. The inspectors performed a selective examination of licensee activities that 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. Items relied on for safety (IROFS) were properly implemented and maintained in order to perform their intended safety function. (Paragraphs A.1 and A.2)
- The licensee adequately implemented the Nuclear Criticality Safety Program, conducted audits and investigations, reviewed events and maintained and implemented appropriate Nuclear Criticality Safety Controls. (Paragraphs A.3 and A.4)
- The Fire Protection program and systems were adequately maintained in accordance with the license and regulatory requirements. (Paragraphs A.5)

Radiological Controls

- The licensee adequately implemented the Radiation Protection program consistent with the license and regulatory requirements. (Paragraph B.1)

Facility Support

- The post maintenance testing and surveillance programs were implemented in accordance with the license and regulatory requirements for work control and safety-related equipment testing. (Paragraphs C.1 and C.2)
- Adverse conditions were adequately identified, evaluated, and entered into the corrective action program. (Paragraph C.3)
- The biennial emergency preparedness program exercise was conducted in accordance with the Emergency Plan and regulatory requirements. (Paragraph C.4)
- The Configuration Management program was implemented in accordance with the license and regulatory requirements for routine plant and on-site construction activities. (Paragraph C.5)

Other Areas

- The Building 110B furnace fire in January 2015, Licensee Event Report 70-143/2015-001 and Event Notification 50748, has been closed. One minor violation was issued due to the inadequate response to the fire event. (Paragraph D.1.a)
- Violation 70-143/2015-002-02, "Failure to Analyze Credible Abnormal Condition," has been closed. The inspectors determined that the licensee's immediate and long term implementation of corrective actions was adequate to restore regulatory compliance and prevent future recurrence. (Paragraph D.1.b)
- Violation 70-143/2015-002-01, "Circumvention of Safety Related Components," has been closed. The inspectors determined that the licensee's immediate and long term implementation of corrective actions was adequate to restore regulatory compliance and prevent future recurrence. (Paragraph D.1.c)
- Following additional information provided by the licensee, the NRC reviewed and evaluated a previous inspection unresolved item (URI-2015-006-01) for the adequacy of the licensee's procedures and measures in place for handling potentially contaminated waste. The inspectors identified a Severity Level IV Violation of the license for failure to have adequate procedural guidance for handling radioactive waste contaminated with non-compatible cleaning materials. (Paragraph D.1.d)

Attachment:

Supplementary Information

REPORT DETAILS

Summary of Plant Status

The facility began the inspection period with the following process areas operating: Naval fuel manufacturing facility (FMF) and the Blended Low Enriched Uranium (BLEU) Preparation Facility (BPF) which includes the Uranium (U)-Metal, U-Oxide, Solvent Extraction and the down-blending lines. Construction activities associated with the 302 roof upgrade project were occurring throughout the inspection period.

A. Safety Operations

1. Plant Operations Routine (Inspection Procedures (IPs) 88135 and 88135.02)

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) to determine whether the licensee appropriately captured off-normal events and implemented effective corrective actions to prevent recurrence.

The routine tours included walk-downs of the FMF, BPF, commercial development line, miscellaneous storage areas, Building 234, and Building 440. During routine tours, inspectors verified that operators were knowledgeable of their duties and attentive to any alarms or annunciators at their respective stations. The inspectors observed activities during normal and upset conditions for compliance with procedures and material station limits. The inspectors noted that safety controls, including IROFS, were in place, properly labeled, 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 reviewed operator log books, standard operating procedures (SOPs), maintenance records, and Letters of Authorization ((LOA); i.e., 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 compensatory measures.

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, the physical condition of bulk chemical storage tanks and piping, storage of compressed gas containers, and potential degradation of plant security features. In addition, inspectors periodically toured or inspected the licensee's emergency response facilities for familiarization and to ensure the facilities were maintained in a readily available status.

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 during these meetings.

Safety System Inspection (IP 88135.04)

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 the 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 and the operability of IROFS, safety-related devices, or other support systems essential to safety system performance. The Area LA process area was specifically inspected.

To determine the correct system alignment, the inspectors reviewed procedures, drawings, related ISAs, and regulatory requirements such as 10 CFR 70.61, "Performance Requirements." 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/Tag-Out program appropriately implemented
- Cabinets, cable trays, and conduits correctly installed and functional
- Visible cabling in good material condition
- No interference of ancillary equipment or debris with system performance

b. Conclusion

No findings of significance were identified.

2. Operational Safety (IP 88020)

a. Inspection Scope and Observations

The inspectors interviewed staff and reviewed records associated with process Areas 200 and 900. The inspectors determined that the specific safety controls reviewed were being adequately implemented and properly communicated as described in the ISA. The inspectors determined that the licensee was operating the facility safely and in compliance with requirements.

The inspectors confirmed that engineered controls for Areas 200 and 900 were present and capable of performing their intended safety functions. To complete this confirmation, the inspectors verified the physical presence of passive and active engineered safety controls, evaluated the safety controls to determine their capability and operability, and verified that potential accident scenarios were covered.

The inspectors determined that licensee administrative controls were implemented and communicated. The inspectors reviewed various procedures and determined that required actions as identified in the ISA Summary have been correctly transcribed into written operating procedures. The inspectors evaluated the procedures' contents with respect to operating limits and operator responses for upset conditions and verified that limits needed to assure safety were adequately described in the procedures.

The inspectors interviewed various operators and determined that they were adequately implementing the required safety controls. The inspectors observed operator performance and determined that they were adhering to applicable safety procedures. The inspectors reviewed the postings applicable to the tasks being observed and determined that these postings were current, reflected safety controls, and were followed by the operators.

The inspectors verified that the licensee conducted periodic surveillances as required by the ISA summary for the selected safety controls through interviews, document reviews and observations.

The inspectors reviewed the licensee's corrective action program entries for the past 12 months and determined that deviations from procedures and unforeseen process changes affecting nuclear criticality, chemical, radiological, or fire safety were documented and investigated promptly. Also, the inspectors evaluated the corrective actions associated with selected corrective action program (CAP) entries and determined that the completed corrective actions were adequate.

b. Conclusion

No findings of significance were identified.

3. Nuclear Criticality Safety (NCS) (IP 88135.02)

a. Inspection Scope and Observations

During daily production area tours, the inspectors verified that various criticality controls were in place, that personnel followed criticality station limit cards, and that containers were adequately controlled to minimize potential criticality hazards. The inspectors

reviewed a number of criticality-related IROFS for operability. The inspectors noted that operators were knowledgeable of the requirements associated with IROFS, specifically for Area LA and FMF Area 600. The inspectors performed the tours inside various process areas when restrictions on SNM movements were in effect.

As part of routine day-to-day activities on-site, inspectors reviewed corrective action program entries associated with criticality safety aspects. The inspectors evaluated the licensee's response to such entries and, if needed, had discussions with NCS engineers to determine safety significance and compliance with procedures.

b. Conclusion

No findings of significance were identified.

4. Nuclear Criticality Safety (IPs 88015 and 88016)

a. Inspection Scope and Observations

The inspectors evaluated the adequacy of the licensee's NCS program and analyses to assure the safety of fissile material operations. The inspectors reviewed selected NCS documents to verify that criticality safety of risk-significant operations was assured with adequate safety margin. The inspectors verified that NCS documents were prepared and reviewed by qualified staff. The inspectors verified that NCS analyses demonstrated adequate identification and control of NCS hazards to assure operations within subcritical limits through appropriate limits on controlled parameters. The inspectors noted that no changes to the licensee's validation report were made since the last NCS inspection.

The inspectors accompanied a licensee NCS engineer on an audit of the FMF Areas 300 and 400. Additionally, the inspectors observed licensee NCS engineers' response to NCS-related issues in the FMF. The inspectors also reviewed the results of the most recent NCS audits (since the last NCS inspection) to assure that appropriate issues were identified and resolved. The inspectors noted that audits were performed by NCS engineers who reviewed open NCS infractions, plant operations for compliance with license requirements, procedures and postings, and equipment to verify that past evaluations remained adequate. The inspectors confirmed that deficiencies identified during audits were communicated to area supervision and entered into the licensee's CAP.

The inspectors performed plant walk-downs of the FMF as well as the BPF to verify that risk-significant fissile material operations were being conducted safely and in accordance with regulatory requirements. The inspectors interviewed licensee NCS engineers both before and during walk-downs. The inspectors verified that controls identified in NCS analyses were installed or implemented and were adequate to ensure safety. The inspectors also verified that safety was maintained for observed facility operations. The cognizant NCS engineers were knowledgeable and interacted regularly with operators on the process floors.

The inspectors conducted interviews with operators and area supervisors to assess the effectiveness of NCS-related training. Additionally, the inspectors conducted interviews with training personnel to verify that training requirements were consistent with license commitments.

The inspectors reviewed the licensee's response to a selection of recent internally-reported events identified. The inspectors reviewed the progress of investigations and interviewed licensee staff considering the events and the associated corrective actions. The inspectors observed that the events were investigated in accordance with procedures and appropriate corrective actions were assigned and tracked.

b. Conclusion

No findings of significance were identified.

5. Fire Protection Quarterly (IP 88135.05)

a. Inspection Scope and Observations

During routine plant tours, the inspectors verified that transient combustibles were being adequately controlled and minimized in selected 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 in selected process areas and determined they were implemented per site procedure. The Building 105 Laboratory was specifically inspected.

The inspectors conducted a walk-down of the lab and determined the Pre-Fire plan drawing matched the as-found condition for various fire protection components like extinguishers, sprinkler systems, and postings. The material condition of fire protection components was adequate. The inspectors noted the fire water supply to the lab sprinkler system was properly aligned for operational status.

b. Conclusion

No findings of significance were identified.

B. Radiological Controls

1. Radiation Protection Quarterly (IP 88135.02)

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 Special Work Permits (SWPs). 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.

Inspectors performed numerous partial reviews of SWPs during the inspection period in different operational areas, but conducted a more thorough review for the following SWPs:

- 15-14-024, Piping Replacement in Area 800
- 16071, Column Flange Replacement in Area 200

b. Conclusion

No findings of significance were identified.

C. Facility Support

1. Post Maintenance Testing (IP 88135.19)

a. Inspection Scope and Observations

The inspectors witnessed and reviewed the post-maintenance tests (PMTs) listed below to verify that procedures and test activities confirmed safety systems and components (SSCs) operability and functional capability following the described maintenance. The inspectors reviewed the licensee's completed test procedures to ensure any of the SSC safety function(s) that may have been affected were adequately tested, that the acceptance criteria were consistent with information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed and/or reviewed the test data to verify that test results adequately demonstrated restoration of the affected safety function(s). The inspectors verified that PMT activities were conducted in accordance with applicable work order (WO) instructions or licensee procedural requirements. Furthermore, the inspectors verified that problems associated with PMTs were identified and entered into Problem, Identification, Review, and Correction System (PIRCS).

- WR# 226010, Replacement of tubing in Area 300
- WR# 240314, NOx Detector System Calibration for 333 BPF U-Oxide

b. Conclusion

No findings of significance were identified.

2. Surveillance (SRE) Testing (IP 88135.22)

a. Inspection Scope and Observations

The inspectors witnessed portions of and/or reviewed completed test data for the following surveillance tests of risk-significant and/or safety-related systems to verify that the tests met the requirements of the ISA, commitments, and licensee procedures. The inspectors confirmed the testing effectively demonstrated that the SSCs were operationally capable of performing their intended safety functions and fulfilled the intent of the associated safety-related equipment test requirement.

The inspectors discussed surveillance testing requirements with operators performing the associated tasks and determined that their procedural knowledge was appropriate. The inspectors verified that any test equipment or standards used to conduct the test were within calibration. The inspectors determined that effective communications between personnel performing these tests were used to complete each activity.

- N301VALPSL5U09, NCS 301 Plant Air Supply Valve
- N301VALPSL5U10, NCS 301 Plant Air Supply Valve
- N302XCONDEN0C01, 302 NCS Physical Barrier
- N302XFLOWFS0F10, 302 Flow Switch SRE Testing
- N307XXVALVS853M, 800 Unit M functional testing
- N333XNOXDET3X18, NOx System functional testing for 333 BPF U-Oxide
- WO# 1018545, 306 UPS/Diesel Generator monthly testing
- WO# 1018546, 480 UPS/Diesel Generator monthly testing
- WO# 1018547, 365 UPS/Diesel Generator monthly testing

b. Conclusion

No findings of significance were identified.

3. Corrective Action Program Review (IP 88135)

a. Inspection Scope and Observations

The inspectors reviewed the PIRCS to ensure that items adverse to safety were being identified and tracked to closure in accordance with program procedures. The inspectors routinely attended daily PIRCS screening committee meetings to evaluate site management's response and assignment of corrective actions or investigations to various issues. 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. For items identified to be more safety significant, inspectors conducted an additional evaluation to verify the licensee was adequately addressing and correcting the issues to prevent recurrence.

Furthermore, the 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 PIRCS, specifically the licensee's PIRCS trending program.

b. Conclusion

No findings of significance were identified.

4. Evaluation of Exercises and Drills (IP 88051)

a. Inspection Scope and Observations

The inspectors reviewed the emergency drill scenario and discussed the exercise objectives with licensee personnel prior to the exercise. The inspectors observed the licensee's preparation for the exercise to assess the effectiveness of the visual aids used in the drill and verified that the licensee had not pre-staged equipment in anticipation of the exercise.

The inspectors observed and evaluated the licensee's graded biennial exercise conducted on May 6. The scenario involved a natural gas explosion that breached the process area resulting in a fire and loss of containment of equipment containing licensed material. The scenario also involved several injuries to personnel with various contamination levels.

The inspectors observed members of the licensee's emergency response team assemble at the designated assembly area and the arrival of the off-site emergency responders including the local fire department and Emergency Medical Technicians. The inspectors observed the emergency response team's search and rescue activities for casualties, assessment of the affected area, and mitigation of the fire. The Incident Commander maintained adequate command and control of the emergency response team and coordinated action with the off-site emergency responders.

The inspectors observed the activation of the Emergency Control Center (ECC) and noted that all required positions were fully staffed in accordance with the Emergency Plan (Plan). The inspectors verified that ECC personnel assessed the accident scenario, analyzed the plant conditions, and appropriately classified the event. The inspectors observed that the dose assessor properly performed the offsite dose assessment and communicated the results and assumptions to the Emergency Director.

The event was classified as a Site Area Emergency in accordance with the Plan. The inspectors verified that the protective action recommendations implemented by the emergency organization were appropriate for the accident scenario and in accordance with the Plan.

The inspectors verified that the initial offsite notifications were within the time period specified in the Plan and were complete in content. The inspectors observed that press releases prepared by the emergency organization's public affairs staff were approved by the Emergency Director (ED) and were in accordance with the Plan. The inspectors determined that the ED maintained adequate command and control of the emergency organization.

The inspectors observed the staff critiques of the emergency exercise. The inspectors determined that the critiques were effective at identifying areas of improvement and supported open communication. The inspectors verified that the licensee documented the items discussed in the critiques in the CAP. The inspectors verified that the emergency response team activities were appropriate for the exercise scenario and were adequate in meeting the drill objectives.

b. Conclusion

No findings of significance were identified.

5. Permanent Plant Modifications (IP 88070)

a. Inspection Scope and Observations – Plant Activities

The inspectors interviewed the Configuration Management Section Manager and his staff members and reviewed implementing procedures to verify the licensee had established an effective configuration management system to evaluate, implement, and track permanent plant modifications to the site which could affect safety.

The inspectors reviewed selected change control packages for Internally Authorized Changes (IACs). The change packages had adequate provisions to ensure the plant modifications did not degrade the performance capabilities of safety controls or change the safety design basis. The inspectors walked down the plant modifications to validate the as-found plant configuration were in agreement with the packages.

The inspectors verified the applicable post installation maintenance and testing requirements were adequately identified, performed, and reviewed prior to placing the modifications and affected equipment into service. In the case of IAC 875, which involved the identification of a new accident scenario, the inspectors verified that the licensee had established management measures to ensure that the IROFS from the modification were available and capable of performing their intended safety function.

The inspectors reviewed assessments performed by the licensee of the implementation of its configuration control program. The inspectors verified that the assessments were thorough and issues identified were entered into the licensee's PIRCS.

Inspection Scope and Observations - 302 Roof Construction Activities

Inspectors performed a review of the associated calculations and lift plan for the installation of the temporary canopy for Building 302. The purpose of the temporary canopy was to provide protection for the existing roof and future roof replacement project. Specific inspection activities included a review of:

- structural calculations for the temporary canopy
- structural calculations for the temporary canopy anchorage system
- the third party engineering review
- the crane lift plan
- welding requirements
- structural and anchor bolt installation requirements and
- Building 302 IROFS

Inspectors also performed a walk-down of Buildings 302, 303 and 306 to determine if conditions identified in the temporary canopy calculations and drawings matched existing field conditions and interviewed staff to develop an understanding of licensee involvement and oversight for both the temporary canopy installation and future roof replacement.

b. Conclusion

No findings of significance were identified.

D. Other Areas

1. Follow-up on Previously Identified Issues

a. (Closed) Licensee Event Report (LER) 70-143/2015-001, Event Notification (EN) 50748: Building 110B Furnace Fire

1) Inspection Scope and Observations

On January 21, 2015, during combustion of a cartridge filter, flames were observed at the top of a ceramic furnace door contained inside ventilation hood H-103. After observing the flames grow progressively larger, the lab technician de-energized the furnace. The furnace fire lasted 5 to 10 minutes. The ventilation hood glass broke (spider-webbed and delaminated) but was fully contained in the sash. The lab manager was notified and entered the event into the CAP (P47006). An approximate one hour delay occurred before the appropriate fire response personnel arrived on-scene because the manual pull station was not activated and the fire brigade and superintendent were not notified. This was not in accordance with section 4.1.2 of NFS-HS-E-04, "Fire Reporting and Response," an implementing procedure of the licensee's Emergency Plan, and has been dispositioned as a minor violation of regulatory requirements. The violation is minor because lab personnel extinguished the fire by de-energizing the furnace and remained in the area to verify the fire remained out.

Items Relied on for Safety were not involved with the fire event. Building 110B included fire safety-related IROFS: dry pipe sprinkler system, fire rated walls, and monthly combustible control surveillances. The fire did not activate or challenge these safety controls.

Lab furnace operations were shutdown pending the results of the investigation. The licensee made a 24 hour report to the NRC per 10 CFR 70.50(b)(4)(ii) for an unplanned fire with damage to equipment containing licensed material (EN 50748). The event did not reach the threshold for an alert declaration, which was a fire that could not be contained by onsite personnel within 15 minutes and had the potential to create a radiological release. No personnel were injured. Nasal smears performed for the lab technician were negative. High volume air samples, room stationary air samples, and swipe surveys on the glass door enclosure were negative.

2) Conclusion

The inspectors concluded the licensee's investigation and implementation of corrective actions were adequate to prevent recurrence. This failure to comply with section 4.1.2 of NFS-HS-E-04 constitutes a minor violation that is not subject to enforcement action in accordance with the NRC Enforcement Policy.

b. (Closed) Violation (VIO) 70-143/2015-002-02, "Failure to Analyze Credible Abnormal Condition"

1) Inspection Scope and Observations

On October 29, 2014, the licensee discovered approximately three ounces of fissile solution inside a thermowell and junction box in the UR area. The electrical conduit exiting the electrical box provided a flow path for fissile solution to enter an unfavorable geometry electrical box. This flow path had not been analyzed in the licensee's ISA. The licensee reported this event to the NRC (EN 50577) as an unanalyzed condition. The details of the event and violation are described in NRC Inspection Report 70-143/2015-002 (ML15107A039).

The inspectors reviewed the licensee's immediate and corrective actions implemented to address the cause of the violation. The licensee's immediate and corrective actions implemented to restore regulatory compliance were to 1) shutdown the affected equipment and similar equipment pending inspection and repair, 2) make the appropriate notifications (both internally and to the NRC), 3) track the issue in the licensee's CAP and 4) physically modify the affected electrical panels. The licensee stated that all unfavorable geometry electrical panels in the facility connected by conduit to sensors on uranium-bearing systems were modified by installing drain holes to prevent the possible accumulation of fissile solution. This modification was implemented to protect the licensee's assumption that fissile solution would ultimately drain to the floor, which had large lateral dimensions and was flat to provide a safe slab geometrical configuration. Therefore, the installation of drain holes now ensured that the upset condition of a fissile solution leak through conduit was bound by the existing accident sequences in the licensee's ISA. The inspectors verified during facility walk-downs that drain holes had in fact been installed in all affected electrical panels. The inspectors verified that the modifications to the electrical panels were performed in accordance with the licensee's procedures and applicable regulatory requirements. The licensee stated that full regulatory compliance was achieved on November 2, 2014, when the final unfavorable geometry electrical panel connected by conduit to sensors on uranium-bearing systems was modified by installing drain holes. The inspectors determined that the licensee's immediate and corrective actions were adequate to restore regulatory compliance.

In addition to the above described immediate and corrective actions implemented to restore regulatory compliance, the licensee specified additional corrective actions. Although not subject to a similar upset condition due to a different physical configuration and design characteristics, the licensee was installing drain holes in the electrical panels located in the BPF. This modification will provide the licensee with additional defense-in-depth. The licensee also completed a Root Cause Investigation to understand the root causes of the violation and captured lessons learned in its Operating Experience program. The licensee was revising various procedures to prevent reoccurrence.

2) Conclusion

No findings of significance were identified.

c. (Closed) Violation (VIO) 70-143/2015-002-01, "Circumvention of Safety Related Components"

- 1) On April 17, 2015, the NRC identified a violation for an operator performing an unauthorized temporary modification of equipment by blocking safety-related valves open with wrenches. During this inspection period, the inspectors performed a follow-up inspection on the licensee's corrective actions for this violation. The inspectors reviewed PIRCS 44298 and the licensee's commitments to restore compliance in response to the violation. The inspectors reviewed the assessment conducted prior to restarting the equipment for the area that was shut down and found it to be adequate. The inspectors also reviewed the extent of condition evaluation performed that concluded that the practice associated with the event did not extend beyond the involved operator. The inspectors reviewed the training package developed and presented to plant personnel that reinforced expectations regarding personal accountability, demonstrating a questioning attitude, and proper decision making traits and determined it was adequate. In addition, the inspectors reviewed the licensee's 2014 Summer Outage return to work package which included a discussion about the importance of never circumventing safety-related equipment (SRE). Lastly, the inspectors reviewed the Supervisors Management Alignment Meeting given on July 15, 2014, where precautions and safety culture aspects about the event were given. No issues were noted with the licensee's corrective actions and management of the issue.

2) Conclusion

No findings of significance were identified.

d. (Closed) Unresolved Item (URI) 2015-006-01, "Handling and Cleaning of Potentially Contaminated Waste" and EN 50954, "Unplanned Contamination Event"

- 1) URI 2015-006-01, Handling and Cleaning of Potentially Contaminated Waste, was opened to allow the review and evaluation of the licensee's approved causal evaluation and planned corrective actions following the unplanned chemical reaction in the 306 West area of the facility. The inspectors reviewed the licensee's final causal evaluation and planned corrective actions to evaluate whether any violations of NRC requirements had occurred.

Introduction: The inspectors identified a cited Severity Level IV violation of SNM License SNM-124, Safety Condition 01, for the failure to have adequate procedural guidance for handling waste material. Specifically, the lack of detailed procedural guidance in SOP-401-17, FMF Cleaning, Revision (Rev.) 7, resulted in a release of waste material due to over-pressurization of a two-liter container. The over-pressurization of the two-liter container was due to an unplanned chemical reaction.

Description: On Saturday, April 4, 2015, a NFS fuel supervisor noticed an unusual odor coming from an area near the main process floor. Upon further investigation, the supervisor and an operator discovered a ruptured and smoldering two-liter container on the floor of an unoccupied storage area and a visible brownish-red haze in the air. The contents of the container, cleaning products, had been ejected onto the floor and adjacent areas within the 306 West storage area. Access to the area was immediately

restricted and additional entry requirements posted to allow for cleanup activities. No one was injured. The licensee reported this event to the NRC as EN 50954 and entered it into the CAP as PIRCS #47925.

In an effort to avoid unplanned chemical reactions, NFS had procedures and training in place which provided details on how items were to be rinsed and dried prior to being placed into approved containers to minimize the potential for a chemical reaction. A lack of detailed guidance in SOP-401-17 was identified by the licensee as a causal factor to the April 4, 2015, event. The SOP did not provide detailed guidance to operators on how to adequately clean non-compatible materials. Specifically, detail was lacking in the procedure concerning rinsing and drying of items prior to placement into containers.

Analysis: The lack of adequate procedural guidance in SOP-401-17 for the handling of potentially contaminated waste was identified by the licensee as one of the causes to the event.

The licensee's assessment of the release using its approved methodology yielded an event of potentially low consequence, as defined in its ISA, for chemical and radiological consequences. The inspectors determined that there was no actual safety significance associated with the release because no workers were present at the time. However, the violation was found to be more than minor based on Screening Question 2 of Manual Chapter 0616, "Fuel Cycle Safety and Safeguards Inspection Reports," Appendix B, which stated that, "if left uncorrected, would the noncompliance have the potential to lead to a more significant safety or safeguards concern?" The inspectors determined that if SOP-401-17 remained uncorrected in details, it was credible that an unplanned chemical reaction could occur again and, if a worker was present, the potential existed for a release that could affect the worker.

Enforcement: The inspectors determined inadequate guidance provided in the waste handling procedures was a violation of NFS's SNM License SNM-124, Safety Condition 01, which required, in part, that procedures be established and used in accordance with the statements, representations, and conditions in the application.

Chapter 11 of the NFS license application, Management Measures, Section 11.4, "Procedure Development and Implementation," stated, in part, that activities involving the handling of SNM were conducted in accordance with written procedures as defined in Section 11.4.1, "Operating Procedures." Section 11.4.1, Operating Procedures, defined, in part, operating procedures as documents written to authorize the processing of radioactive material; and within these documents, instructions for disposition of radioactive wastes.

Contrary to the above, prior to the event on April 4, 2015, the licensee failed to ensure that procedure SOP-401-17, FMF Cleaning, Rev. 7, contained adequate instruction for disposition of radioactive wastes, specifically guidance on handling radioactive waste contaminated with non-compatible cleaning materials. As a result, an unplanned and uncontrolled chemical reaction occurred within an unoccupied storage area. If a worker(s) had been present in the area at the time of the event, there existed the potential of a radiological or chemical consequence to the worker(s) that would be of low safety significance. The potential safety significance of the event was determined by licensee staff and independently verified by the NRC.

In accordance with the NRC Enforcement Policy, violations that are less serious, but are of more than minor concern, and result in no or relatively inappreciable potential safety or security consequences are characterized as Severity Level IV violations. The failure to provide adequate guidance for the handling of radioactive waste contaminated with non-compatible cleaning materials is a Severity Level IV violation of NRC requirements and will be tracked as VIO 70-143/2015-003-01, "Inadequate Procedural Guidance for the Proper Handling and Cleaning of Potentially Contaminated Waste."

2) Conclusion

A Severity Level IV violation of NRC requirements was identified.

E. Exit Meeting

The inspection scope and results were presented to members of the licensee's staff at various meetings throughout the inspection period and were summarized on May 7, June 18, July 9, and July 23, 2015, to J. Duling and his staff. 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
N. Brown	NCS Department Section Manager
T. Coates	Senior Advisory Engineering Section Manager
R. Dailey	Engineering Director
R. Dotson	Quality Manager
R. Droke	Senior Regulatory Advisor
J. Duling	President
T. Evans	Security Section Manager
R. Freudenberger	Safety & Safeguards Director
J. Hagemann	Work Management Section Manager
R. Holley	Environmental Unit Manager
H. Jimenez	Waste Water Treatment Facility Manager
M. McKinnon	Operations Director
M. Moore	Environmental Protection & Industrial Safety Section Manager
J. Nagy	Nuclear Safety Officer Chief
A. Sabisch	Licensing and ISA Manager
S. Sanders	Training Manager
E. Senter	Licensing and ISA
R. Shackelford	Nuclear Safety & Licensing Section Manager
R. Storey	Configuration Management Unit Manager
M. Tester	Radiation Protection Unit Manager

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

70-143/2015-003-01	VIO	Inadequate Procedural Guidance for the Proper Handling and Cleaning of Potentially Contaminated Waste (Paragraph D.1.d)
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Closed

70-143/2015-003-01	LER	Event Notification (EN) 50748: Building 110B Furnace Fire (Paragraph D.1.a)
70-143/2015-002-02	VIO	Failure to Analyze Credible Abnormal Condition (Paragraph D.1.b)
70-143/2015-002-01	VIO	Circumvention of Safety Related Components (Paragraph D.1.c)
70-143/2015-006-01	URI	Handling and Cleaning of Potentially Contaminated Waste (Paragraph D.1.d)
70-143/2015-504-0	LER	EN 50954: Unplanned Contamination Event (Paragraph D.1.d)

3. INSPECTION PROCEDURES USED

88015	Nuclear Criticality Safety Program
88016	Nuclear Criticality Safety Evaluations and Analyses
88020	Operational Safety
88051	Evaluation of Exercises and Drills
88070	Permanent Plant Modifications
88135	Resident Inspection Program For Category I Fuel Cycle Facilities
88135.02	Plant Status
88135.04	ISA Implementation
88135.05	Fire Protection
88135.17	Permanent Plant Modifications
88135.19	Post Maintenance Testing
88135.22	Surveillance Testing

4. DOCUMENTS REVIEWED

Procedures:

Area 900 Process Hazards Analysis Table
 Area 200 ISA Table
 Area 100 Process Hazard Analysis
 EP-01, Standard Operational Guidelines for Evaluation of Unusual Incidents
 IROFS 300-GENERAL
 IROFS 303-100-200
 IROFS 303-900
 NFS-EC-1, Calibration of Weight or Mass Measuring Systems
 NFS-GH-25, Hot Work Procedure
 NFS-GH-27, Impairments to Fire Protection Systems
 NFS-GH-31, Compressed Gas Cylinders
 NFS-GH-43, Safety Related Equipment Control Program
 NFS-GH-43-01, Safety-Related Equipment Writer's Guide
 NFS-GH-62, Control of Combustibles
 NFS-GH-62-01, NFS Monthly Combustible Control Inspection
 NFS-GH-901, Configuration Management Program
 NFS-HS-A-16, Safety Audits, Assessment, and Inspections
 NFS-HS-A-58, Nuclear Criticality Safety Evaluations
 NFS-HS-A-62, Implementation of Nuclear Criticality Safety Evaluations
 NFS-HS-A-68, ISA Risk Assessment Procedure
 NFS-HS-A-104, Testing/Inspection of Fire Barrier Systems
 NFS-HS-B-18, Collection and Analysis of NFS Stack Samples
 NFS-HS-B-58, Fire Suppression System
 NFS-HS-B-95, Testing/Inspection of Fire Barrier Systems
 NFS-HS-CL-28, Nuclear Criticality Safety for the CDL Facility
 NFS-HS-CL-10-08, NCS for Buildings 306 and 307 – Area 800
 NFS-HS-CL-26, Nuclear Criticality Safety for the BLEU Preparation Facility
 NFS-HS-E-04, Fire Reporting and Response
 NFS-M-17, Calibration System Manual
 NFS-NCSE-NCSAWG, Nuclear Criticality Safety Evaluation Writer's Guide
 NFS-NCS-AUDITWG, Nuclear Criticality Safety Audit Writer's guide

NFS-OPS-001, Conduct of Operations
 NFS-SEC-31, Procedure for Safeguarding MAA Barrier Integrity
 NFS-WM-001, Control and Execution of Work
 NFS-WM-001-02, Work Control Process
 NFS-WM-001-04, Work Acceptance Process
 SOP 250, Maintenance Operations and Testing of UPS/Generator System Building 306
 SOP 411, Maintenance Operations and Testing of UPS/Generator System Building 480
 SOP 421, Maintenance Operations and Testing of UPS/Generator System Building 365
 105 Laboratory Pre-Fire Plan

Records:

21X-15-2, 300 Complex Recovery ISA Summary
 FM-NFS-HS-A-50-01, Event Notification Report Summary for B-110B Fire
 NFS-HS-B-38 Att. A, Nasal and Saliva Survey Report for B-110B Fire
 Stack Sample Count Decay Worksheets, B-110B
 NFS-OPS-001 Restart Authorization (Level 2) for B-110B Furnace Fire Event
 Critique #47006, B-110B Furnace Fire Event
 Fire Investigation Report, dated January 23, 2015
 B-110B Furnace Fire Small Team Root Cause Investigation #18909
 B-110B Furnace Fire Extent of Condition Review #18910
 Safety Culture Implications Review for B-110B Fire #18911
 Completed CAs associated with B-110B Furnace Fire: #24253, 24442, 24444, 24445, 24446, 24447, 24448, 24450, 24451, 24452, 24577
 NFS-OPS-001 Restart Authorization for BPF-333 Column Dissolver Overflow, P48794
 NFS-OPS-001 Restart Authorization for BPF-333 Column Dissolver Overflow, P48929
 LOA-WWTF-15-001, Wastewater Stabilization in TANKXX-0013
 LOA-2266W-012, Processing Filters through 301 Calciner
 IROFS-302-100-200, SRE N302VALVEBAA205, Revision (Rev.) 2, dated July 11, 2014
 IROFS-302-100-200, SRE N302VALVEBAA205, Rev. 2, dated January 27, 2015
 IROFS-302-100-200, SRE N302VALVEBAB205, Rev. 2, dated July 11, 2014
 IROFS-302-100-200, SRE N302VALVEBAB205, Rev. 2, dated August 13, 2014
 IROFS-302-100-200, SRE N302VALVEBAB205, Rev. 2, dated January 27, 2015
 IROFS-303-100-200, SRE N303VALVELA205, Rev. 1, dated July 24, 2014
 IROFS-303-100-200, SRE N303VALVELA205, Rev. 1, dated February 10, 2015
 IROFS-302-100-200, SRE N302VALVEBA0248, Rev. 1, dated August 19, 2014
 IROFS-302-100-200, SRE N302VALVEBA0248, Rev. 1, dated March 17, 2015
 IROFS-302-100-200, SRE N302VALVEBA0248, Rev. 1, dated June 10, 2015
 IROFS-303-100-200, SRE N303VALVENL0249, Rev. 1, dated July 24, 2014
 IROFS-303-100-200, SRE N303VALVENL0249, Rev. 1, dated February 10, 2015
 IROFS 302-900, SRE N302VALVETG1903, Rev. 1, dated December 3, 2014
 IROFS 303-900, SRE N303VALVETG1903, Rev. 1, dated December 24, 2014
 IROFS 303-900, SRE N303VALVETG1903, Rev. 1, dated April 23, 2015
 IROFS 303-900, SRE N303VALVETG1903, Rev. 1, dated June 10, 2015
 IROFS 302-900, SRE N302VALVETG1926, Rev. 1, dated December 4, 2014
 IROFS 303-900, SRE N303VALVETG1926, Rev. 1, dated December 4, 2014
 IROFS 303-900, SRE N303VALVETG1926, Rev. 1, dated April /27, 2015
 IROFS 303-900, SRE N303VALVETG1926, Rev. 1, dated June 10, 2015
 IROFS 302-100-200, SRE N302XOVRFL00101, Rev. 0, dated May 22, 2014
 IROFS 302-100-200, SRE N302XPOGVNNTA201, Rev. 1, dated August 3, 2014
 IROFS 302-100-200, SRE N302XPOGVNNTA201, Rev. 1, dated March 17, 2015
 IROFS 302-100-200, SRE N302XPOGVNNTB201, Rev. 1, dated March 17, 2015

IROFS 302-100-200, SRE N302XPOGVNTA201, Rev. 1, dated March 17, 2015
 IROFS 302-100-200, SRE N302XPOGVNTO204, Rev. 2, dated May 27, 2014
 IROFS 302-100-200, SRE N303XPOGVNTO108, Rev. 2, dated October 30, 2014
 IROFS 303-100-200, SRE N303XPOGVNTO204, Rev. 2, dated October 30, 2014
 IROFS 303-100-200, SRE N303XPOGVNTA201, Rev. 1, dated October 11/2014
 IROFS 303-100-200, SRE N303XPOGVNTO201, Rev. 2, dated October 30, 2014
 IROFS 303-100-200, SRE N303XPOGVNTO211, Rev. 2, dated October 30, 2014
 IROFS 303-100-200, SRE N303XPOGVNTO212, Rev. 2, dated October 30, 2014
 IROFS 303-100-200, SRE N303XPOGVNTO213, Rev. 2, dated October 30, 2014
 IROFS 300-General, SRE N302PSHLPN2, Rev. 1, dated February 16, 2015
 IROFS 302-900, SRE N302XOVRFL01901, Rev. 2, dated December 26, 2014
 IROFS 302-900, SRE N302XOVRFL01902, Rev. 2, dated December 26, /2014
 IROFS 302-900, SRE N302XOVRFL02901, Rev. 1, dated December 11, 2014
 IROFS 303-900, SRE N302XOVRFL02901, Rev. 1, dated April 21, 2014
 IROFS 303-900, SRE N303XOVRFL01901, Rev. 2, dated December 22, 2014
 IROFS 303-900, SRE N303XOVRFL01902, Rev. 2, dated December 22, 2014
 IROFS 302-100-200, SRE N302VALVETG0186, Rev. 1, dated February 23, 2015
 IROFS 302-100-200, SRE N302VALVEBA0166, Rev. 1, dated May 6, 2014
 302-OVERFLO-1902 (FA-9-35), Set-Point Analysis
 IAC 875, BPF U-Natural Vacuum Transfer System
 IAC 871, Replace Main Ventilation Exhaust Fans and Stack
 IAC 876, PSL 600 SNM Release
 IAC 793, Classified System Restart
 54X-09-0004, "NCSE for ENCLOS-0804, -1901, -2901, and -3901 of the Production Fuel Facility (U)"
 54X-13-0010, "NCSE for Areas 100/200 of the Production Fuel Facility (U)"
 54T-14-0027, "NCSE for BPF Splitting, Sampling, and Combining Enclosure"
 21G-15-0063, "Reply to a Notice of Violation (VIO 70-143/2015-002-02)"
 May 2015 Biennial Graded Exercise Scenario

Audits and Assessments/Investigations:

1st Quarter 2014 ISA PHA-Audit Areas 800/900, dated February 24, 2014
 3rd Quarter 2014 ISA Program Audit, dated July 31, 2014
 NCS Audits: 21T-15-1086, 21T-15-1135, 21T-1137, 21T-1190, 21T-1499, 21T-1647, 21T-15-1750
 1st Quarter 2015 Effluent Assessment, 21T-15-1751
 Investigation 19262 dated June 19, 2015
 Investigation 19263 dated June 19, 2015