UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

[redacted]

April 4, 2005

EA-05-032
Nuclear Fuel Services, Inc.
ATTN: Mr. Kerry Schutt
President, General Manager
P. O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NRC INSPECTION REPORT NO. 70-143/2005-01 AND NOTICE OF VIOLATION

Dear Mr. Schutt:

This refers to the inspection conducted from January 23, 2005, through March 5, 2005, at your Erwin facility. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements.

Areas examined during the inspection included the following: Plant Operations, Fire Protection, Radiation Protection, Nuclear Criticality Safety, and Physical Protection. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

[redacted]

[redacted]

Based on the results of this inspection, the NRC has determined that violations of NRC requirements occurred. The violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding them are described in detail in the subject inspection report. The violations were noted in the areas of procedural compliance and nuclear criticality safety controls.

By letter dated March 17, 2005, we received your reply to our Notice of Violation (70-143/2004-12-02) which was issued on February 18, 2005. The reply met the requirements of 10 CFR 2.201 and your corrective actions will be reviewed during a future inspection.

[redacted]. Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/

David A. Ayres, Chief
Fuel Facility Inspection Branch 1
Division of Fuel Facility Inspection

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

Enclosures: 1. Notice of Violation
2. NRC Inspection Report

cc w/encls:
B. Marie Moore
Vice President
Safety and Regulatory Management
Nuclear Fuel Services, Inc.
P. O. Box 337, MS 123
Erwin, TN 37650

Distribution w/encls: See page 3

[redacted]

Distribution w/encls:
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B. Westreich, NSIR
M. Markley, NMSS
K. Ramsey, NMSS

X SISP REVIEW COMPLETE: Initials: DAA ☐ SISP REVIEW PENDING*: Initials: _____ *Non-Public until the review is complete

[redacted]

ADAMS: ☐ Yes ACCESSION NUMBER:_____

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI		
SIGNATURE		/RA/	/RA/				
NAME	DRich	NRivera	OLopez	SCaudill	WGloersen		
DATE	04/ /05	04/04/05	04/ /05	04/ /05	04/ /05		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: E:\Filenet\ML050950173.wpd

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NOTICE OF VIOLATION

Nuclear Fuel Services, Inc.
Erwin, Tennessee

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

During an NRC inspection conducted between January 23 and March 5, 2005, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions - May 1, 2000," NUREG-1600, the violations are listed below:

A. Safety Condition S-1 of Special Nuclear Materials License No. SNM-124 authorizes the use of licensed materials in accordance with the statements, representations, and conditions in the license Application and Supplements.

Section 2.7 of the License Application, Procedures, states "SNM operations and safety function activities are conducted in accordance with written procedures as defined in Section 1.7.4 and 1.7.5."

Letter of Authorization (LOA)-1877I-038 stated, in part, "Periodically verify that the volume of the [redacted] does not decrease during the blend operation."

Contrary to the above, on February 9, 2005, the licensee failed to verify that the volume of the [redacted] did not decrease during a blend operation.

This is a Severity Level IV violation (Supplement VI).

B. Safety Condition S-1 of Special Nuclear Materials License No. SNM-124 authorizes the use of licensed materials in accordance with the statements, representations, and conditions in the license Application and Supplements.

License Application section 4.1.1.1 stated engineered controls detect an undesired situation and implement corrective action without requiring human intervention. Engineered controls must be capable of performing the criticality safety purpose for which they are specified.

Contrary to the above, from process startup in June 2004, to January 7, 2005, the safety related equipment process logic controller (SRE PLC) for the [redacted] process was not capable of performing the criticality safety purpose for which it was specified, in that the PLC was not capable of monitoring or detecting holdup of material in the process, and therefore would not properly control [redacted] material mass as required.

This is a Severity Level IV violation (Supplement VI).

[redacted]

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, D.C. 20555 with a copy to the Regional Administrator, Region II, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, 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 to avoid further violations, 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 to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

[redacted]

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

Dated this 4th day of April, 2005

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-143
License No.:	SNM-124
Report No.:	70-143/2005-01
Licensee:	Nuclear Fuel Services, Inc.
Facility:	Erwin Facility
Location:	Erwin, TN 37650
Dates:	January 23, 2005 - March 5, 2005
Inspectors:	D. Rich, Senior Resident Inspector S. Caudill, Senior Fuel Facilities Inspector O. Lopez, Fuel Facilities Inspector N. Rivera, Fuel Facilities Inspector
Approved by:	D. Ayres, Chief Fuel Facility Inspection Branch 1 Division of Fuel Facility Inspection

Enclosure 2

[redacted]

[redacted]

EXECUTIVE SUMMARY

Nuclear Fuel Services, Inc.
NRC Inspection Report 70-143/2005-001

This inspection included activities conducted by the senior resident inspector and regional inspectors during normal and off normal shifts in the areas of facility operations, fire protection, radiological protection, and safeguards.

Plant Operations

- The plant was operated safely and in accordance with the license. A weakness was identified in the licensee's ability to formally communicate nuclear criticality safety instructions for abnormal situations (Paragraph 2.a).

- A violation was identified for failure to operate in accordance with approved procedures. The effectiveness of a temporary instruction specifying safety instructions was decreased because safety checks were not required to be recorded. The event was also an example of poor operator awareness of safety system status during operation (Paragraph 2.b).

- An example of inadequate training on system modifications and procedural changes was identified (Paragraph 2.c).

- The nitrogen purge flow paths for the [redacted] system were correctly aligned and adequate to ensure safe operation. However, not all purge flow paths were independently verified, and the licensee added instrumentation to provide for improved testing (Paragraph 2.d).

- Use of temporary equipment was authorized by approved written instructions, but the instructions did not specifically control the fixture by addressing equipment dimensions (Paragraph 2.e).

Fire Protection

- Fire protection and detection equipment was adequately maintained. Fire hazards were minimized by appropriate housekeeping. One example of improper maintenance creating a fire hazard was noted (Paragraph 3a).

- The licensee performed quarterly audits and monthly inspections in accordance with license requirements. Although hot work activities observed by the inspector were performed safely, licensee audits identified deficiencies which were repetitive of past problems (Paragraph 3.b).

[redacted]

- Fire safety systems, including item relied on for safety, were implemented and maintained properly (Paragraph 3.c).

- The process areas, equipment, and material storage areas were operated in accordance with fire safety requirements (Paragraph 3.d).

- Overall the pre-fire plans for the fuel manufacturing and Blended Low Enriched Uranium areas were up to date (Paragraph 3.e).

- The fire brigade training program was in compliance with applicable regulations and license requirements (Paragraph 3.f).

Radiation Protection

- Radiological control practices met regulatory requirements (Paragraph 4a).

Physical Protection

- [redacted]

Attachment:
Partial List of Persons Contacted
Inspection Procedures Used
List of Items Opened, Closed, and Discussed
List of Acronyms

[redacted]

REPORT DETAILS

1. Summary of Plant Status

The fuel manufacturing and scrap recovery processes operated throughout the reporting period. Blended low-enriched uranium (BLEU) operations continued. Efforts continued in decommissioning older facilities on site. The processing, analysis, packaging, and shipments of contaminated soils and debris from the burial grounds continued and construction continued in several areas.

2. Plant Operations (Temporary Instruction (TI) 2600/006)

a. Routine Observations

(1) Scope and Observations

The inspector reviewed plant operations in progress during normal and off-normal operating shifts to evaluate plant safety and compliance with the license. The inspector made routine tours of the plant operating areas and determined that equipment and systems were operated safely and in compliance with the license. Some daily operational meetings were observed where production status and issues were discussed. The inspector verified the Emergency Control Center (ECC) and associated equipment were maintained in a state of readiness. The inspector reviewed selected licensee identified events, and corrective actions for previously identified events, and found no significant deficiencies in the items reviewed.

On March 1, the licensee identified an issue involving a process upset in the [redacted] which was documented as Problem Identification, Resolution and Corrective Action System (PIRCS) [redacted] This issue required nuclear criticality safety (NCS) resolution and one of the directions verbally conveyed by NCS was to assay a particular process vessel, then hold the vessel for disposition. The operator, upon reviewing the assay results indicating an insignificant special nuclear material (SNM) content, placed the vessel back into service. Therefore, although the vessel was safe to place back in service, the instructions from NCS were not formally communicated and not fully carried out. The licensee assessed the cause of this issue to be informal communications, specifically a lack of a standard NCS hold document. No violation of NRC requirements occurred, but the issue illustrated a weakness in the licensee's ability to formally communicate NCS instructions for abnormal situations.

(2) Conclusions

The plant was operated safely and in accordance with the license. A weakness was identified in the licensee's ability to formally communicate NCS instructions for abnormal situations.

[redacted]

b. Observations of Downblending Operations in the BLEU Preparation Facility (BPF)

(1) Scope and Observations

The inspector observed downblending operations in order to verify compliance with approved procedures. On February 9, the inspector noted letter of authorization (LOA) 1877I-038 was in effect which specified compensatory measures for item relied on for safety [redacted], being out of service. The function of IROFS [redacted] was to shut down the process when [redacted] had been downblended. Compensatory measures included a lock-out/tag-out of a transfer pump and valve which could add solution to the [redacted]. The LOA also specified a verification that [redacted] volume was [redacted]. This verification was performed informally, in that results were not documented. The last compensatory measure required was to periodically verify, during downblend operations, that the volume of the [redacted] did not decrease during the blend operation in order to ensure the [redacted] were not inadvertently being downblended. This last step was not accomplished and the operator and supervisor were not aware of the requirement. The LOA did not require a record of either of the column volume checks, which decreased the effectiveness of the LOA. Additionally, the operator displayed poor awareness of safety system status in that the operator was not aware that IROFS [redacted] was out of service. License Application section 2.7 states SNM operations and safety function activities are conducted in accordance with written procedures as defined in Section 1.7.4 and 1.7.5. Failure to conduct downblending operations in accordance with approved procedure LOA 1888I-038 was a violation of NRC requirements (VIO 70-143/2005-01-01).

(2) Conclusions

The plant was operated safely and, with the exception noted, in accordance with the license. A violation was identified for failure to operate in accordance with approved procedures. The effectiveness of a temporary instruction specifying safety instructions was decreased because safety checks were not required to be recorded. The event was also an example of poor operator awareness of safety system status during operation.

c. Observations of Training during [redacted] Operations in the BPF

(1) Scope and Observations

The inspector observed [redacted] operations in order to evaluate on-the-job training (OJT) and adequacy of operating procedures after conversion of the system from [redacted]. Modifications had also been completed to the safety related equipment process logic controller (SRE PLC), and the operator tasks had changed considerably. Even though previously qualified, operators were in an OJT status due to the numerous changes to the system and operating procedures. During the observed operations,

training department personnel who usually conduct OJT were not present. Instead the OJT was conducted by the operations supervisor, and was observed by an NCS engineer in a safety oversight role. In general, the supervisor adequately led the OJT. However, the supervisor directed one procedural step to be performed out of sequence because he felt the sequence did not make sense. This sequence of steps was actually designed as part of a criticality safety control, and performing them out of sequence defeated one aspect of the control. Thus, training on system modifications was not effective prior to commencing operations. The NCS engineer detected the step performed out of sequence, and the steps were re-performed. Additionally, the licensee identified that the PLC software modifications would not allow the initiation of the first batch. Finally, the inspector noted some steps had been omitted from the procedure during printing. The NCS engineer stopped the operation and licensee management directed the accomplishment of additional training and a review of the procedure prior to restart. The inspector determined that since the procedure was stopped by the licensee's safety oversight prior to any SNM being handled, that no violation of NRC requirements occurred. However the operation was an example of improper training on system modifications and procedural changes.

(2) Conclusions

The plant was operated safely and in accordance with the license. One example was identified of improper training on system modifications and procedural changes.

d. [redacted] System Fire Safety IROFS

(1) Scope and Observations

The inspector walked down nitrogen purge flow paths for the [redacted] system and reviewed the adequacy of SRE testing. Each [redacted] had [redacted] nitrogen purge sources which functioned as fire safety IROFS in order to purge the system of [redacted] during normal operations and also in case of an upset. The [redacted] nitrogen sources were the trickle flow path and the reserve flow path. In the case of a failure of one of the reserve purge paths, the licensee had determined that alternate purge would occur from the adjoining pair of [redacted], and also from the [redacted]. The inspector noted no significant discrepancies in the alignment of the system, as compared to system drawings, and noted the system provided adequate nitrogen purge capabilities. However, the inspector noted that instrumentation was not installed to independently verify each reserve purge path, and also that the effectiveness of the alternate flow paths was not rigorously documented. The licensee determined adequate nitrogen purge would be provided regardless of any credible failure event, but decided to shut down the system to install additional instrumentation in order to periodically test and verify all flow paths.

(2) Conclusions

The nitrogen purge flow paths for the [redacted] system were correctly aligned and adequate to ensure safe operation. However, not all purge flow paths were independently verified, and the licensee added instrumentation to provide for improved testing.

e. Control of Temporary Equipment

(1) Scope and Observations

The inspector reviewed the use of temporary equipment in order to determine that temporary equipment was authorized and criticality controls were adequate. The inspector noted a temporary hose was in use in the [redacted] area in the BPF, and that use of the hose was authorized by an LOA. But the inspector noted that the LOA did not specify the diameter, length, or connector information of the temporary fixture and questioned whether the hose had been adequately evaluated and approved from a criticality safety standpoint. In response, a licensee NCS engineer evaluated the temporary fixture as being safe, tagged it as being approved, and the licensee agreed to evaluate information which should be included in an LOA when authorizing use of temporary fixtures. The inspector noted an identical issue in NRC report 70-143/2004-206, section 5.0, which identified that an LOA used to authorize a temporary hose did not specifically control the fixture by specifying diameter, length, or connector information. The report further stated that such information was an important aspect of controlling temporary fixtures. Pending further NRC review, this issue will be tracked as inspection followup item (IFI) 70-143/2005-01-02.

(2) Conclusions

Use of temporary equipment was authorized by approved written instructions, but the instructions did not specifically control the fixture by addressing equipment dimensions.

f. Follow-up on Previously Identified Issues

(1) (Closed) AV 70-143/2004-12-04: Degraded SRE PLC. The SRE PLC was an engineered control designed to control the mass of [redacted] material present in [redacted] system by detecting holdup and also by limiting the amount of material which the operator could add to the system. By system design, holdup should have appeared as a positive mass balance carried over from one batch to the next. The issue concerned the degradation of the control which occurred when a negative mass balance was carried over from one batch to the next. Additional information was made available to the inspector after NRC report 70-143/2004-04 was issued, which clarified the PLC software function. The licensee found that the PLC program would subtract any existing mass balance from the operational limit to compute an allowed batch limit, and then compare and limit the computed value to the normal operational limit. The control was degraded because when a negative balance was carried over, holdup was masked up to the

amount of the negative balance. This was significant because holdup of material actually occurred in every batch. This was due to the method of operation, where the licensee typically loaded a new batch on top of a heel remaining from the previous batch. Holdup also could have occurred as undesirable accumulation of [redacted] material in the process. Therefore, the SRE PLC was unable to detect holdup and control the amount of [redacted] material in the system. License Application section 4.1.1.1 required that engineered controls be capable of performing the criticality safety purpose for which they are specified. Failure of the SRE PLC to be capable of performing the criticality safety purpose for which it was specified was a violation of NRC requirements (VIO 070-143/2005-01-03). AV 70-143/2004-12-04 is closed.

3. Fire Protection (TI 2600/06, Inspection Procedure (IP) 88055)

a. Routine Observations

(1) Scope and Observations

The inspector reviewed fire detection and protection systems in accordance with the license and additional licensee commitments. The inspector determined that fire protection and detection equipment was adequately maintained. Portable fire extinguishers were charged to the normal operating zones and no visible damage was noted. Fire hazards were minimized by appropriate housekeeping.

The inspector reviewed an incident where improper wiring of a band heater on the [redacted] system created a fire hazard. When the system was started for normal operation, the band heater overheated as indicated by the red glow of the energizing equipment, thus creating a fire hazard. The licensee improved system safety by adding ground fault interrupt features to the heater power supplies, but acknowledged the issue was an example of improper maintenance actions creating a fire hazard.

(2) Conclusions

Fire protection and detection equipment was adequately maintained. Fire hazards were minimized by appropriate housekeeping. One example of improper maintenance creating a fire hazard was noted.

b. Review of Documentation Related to the Fire Protection Program, Insurer's Audit, and Safety Committee (O4.02)

(1) Scope and Observations

The inspector reviewed 2004 and first quarter of 2005 records for the fire safety quarterly audits and monthly inspections to verify that they were performed in accordance with license requirements. The inspector observed that the audits/inspections were detail oriented and good findings were identified. The inspector

also verified that managers reviewed findings and that corrective actions were tracked until completion. The inspector noted that in the first quarter of 2005 safety audit, the licensee identified several deficiencies with the implementation of hot work permits. The inspector noted that the implementation of the hot work procedure had been an area needing improvement in the past. The licensee retrained plant personnel and contract workers in the implementation of hot work permits. The inspector also verified that managers reviewed findings and that corrective actions were tracked until completion.

The inspector reviewed hot work activities to verify they were being performed in accordance with hot work permits. The inspector observed hot work in the BPF area. The work area was clear of transient combustibles, and a fire watch was in the area during the work and 30 minutes after the job was performed. The inspector reviewed the pertinent hot work permit and observed the necessary approvals, including the required fire watch, were documented.

The inspector noted that the licensee had not included the Oxide Conversion Building (OCB) and the Uranyl Nitrate Building (UNB) in the quarterly audits and monthly inspections. The inspector brought the issue to the licensee's attention. The licensee acknowledged the issue and committed to incorporate the OCB and UNB in the audit and inspection program.

(2) Conclusions

The inspector confirmed that the licensee performed quarterly audits and monthly inspections in accordance with license requirements. Although hot work activities observed by the inspector were performed safely, licensee audits identified deficiencies which were repetitive of past problems.

c. Building Design, Construction, and Ventilation System, Fire Protection Systems, and Fire Hazard Analysis (O4.03, O4.05, and O4.06)

(1) Scope and Observations

The inspector walked down several fire suppression and protection systems in the fuel process, the BPF, UNB and OCB. Some of the reviewed systems were: fire doors, fire dampers, smoke and beam detectors, and fire walls. The inspector noted that portable fire extinguishers were charged to the normal operating pressure and no visible damage was noted. Fire doors throughout the facility were clear of debris and in proper working condition. The inspector observed the heat activated, [redacted] fire suppression system in the [redacted] area and noted that two nozzles, although still functional and not obstructed, showed signs of corrosion. The licensee planned to replace the [redacted] discharge nozzles in the [redacted] area in BPF with stainless steel nozzles. The inspector observed several fire dampers that did not have protective screens. The licensee had already identified them and had them

under fire watch. The inspector also noted that penetrations to fire walls were properly sealed.

The inspector also walked down a selection of IROFS that were mentioned in the Integrated Safety Analysis (ISA) for these process areas including but not limited to: [redacted]. The inspector also walked down the [redacted] sprinkler system and checked a valve lineup on [redacted] flow lines inside the SNM areas. The inspector did not identify any safety problems.

The inspector reviewed inspection, testing, and maintenance records for selected fire safety system and IROFS including but not limited to: [redacted]. The inspector also reviewed functional test instructions for reviewed IROFS. The inspector noted that the test instructions contained the adequate amount of detail to perform the test. Also, the functional tests were performed at the required frequency. No safety problems were identified.

(2) Conclusions

Fire safety systems, including IROFS, were implemented and maintained properly.

d. Fire Safety of Process, Equipment, and Storage Areas (O4.04)

(1) Scope and Inspections

The inspector performed walked downs of process areas to ensure that combustible materials and flammable liquids were properly controlled. The inspector noted that flammable liquids were stored in designated cabinets. Transient combustibles in the operating process areas were adequately controlled. [redacted]. The inspector noted that outside areas were kept free of significant amounts of transient combustibles large enough to be a fire exposure hazard.

The inspector interviewed operators throughout the process areas to verify their understanding of fire hazards related to their job area. The inspector noted that operators were familiar with the fire safety controls and fire hazards related to their job area.

(2) Conclusions

The process areas, equipment, and material storage areas were operated in accordance with fire safety requirements.

[redacted]

e. Pre-Fire Plan (O4.07)

(1) Scope and Observations

[redacted] The plan identified the location of fire fighting equipment [redacted].

During the tours, the inspector noted a couple of minor discrepancies in the UNB and OCB pre-fire plans which were corrected by the licensee. No significant problems were identified.

(2) Conclusions

The pre-fire plans for the fuel manufacturing and BLEU areas were adequately maintained.

f. Fire Brigade Training (O4.08)

(1) Inspection Scope and Observations

The inspector reviewed implementation and training of the licensee's fire brigade. The inspector reviewed training subjects, frequency of instructional meetings and drills, and files on individual brigade members indicating course completion. The organization, training, and equipment of the fire brigade were adequate to respond to any credible fire emergency. The inspector observed that fire brigade members who lacked certain re-qualification training were disqualified until such training was completed.

With respect to qualification training subject matter and re-qualification frequency, the inspector reviewed the licensee's program against the guidance in NFPA 600, and found no discrepancies. The inspector reviewed documentation of the subjects taught, and names of the attendees and the instructors. The inspector also randomly selected 33 percent of fire brigade members for a detailed reviewed of their training files. The inspector also observed fire extinguisher training required for all employees. The training was thorough. The inspector interviewed operators in the OCB control room regarding the use of fire extinguishers. No problems were identified.

The inspector reviewed the training presentations given annually for off-site fire responders. The inspector also visited the primary off-site response organization, the Erwin Fire Department (EFD), and interviewed the on-duty staff. The inspector determined that the EFD personnel had a reasonable familiarity with the facility and the constraints of fighting a fire within it, with respect to criticality safety and moderation controls. The inspector further discussed various scenarios and response times with these individuals to ascertain that a timely response was reasonably achievable. The EFD was given periodic familiarization tours of the facility.

The inspector noted that the former EFD fire chief had recently retired and no replacement had yet been found. The inspector reviewed this with licensee staff, who stated that when a new EFD fire chief is hired, they will provide the relevant training in a timely manner.

(2) Conclusions

The inspector determined that the fire brigade training program was in compliance with applicable regulations and license requirements.

g. Review of Previously Identified Items

(Closed) IFI 70-143/2004-08-05: Removal of lamps which are a fire hazard. This issue concerned metal halide lamps in the facility which have the potential to ignite the lighting fixture upon failure. The inspector discussed with the licensee corrective actions taken by the licensee in order to resolve this issue. The licensee decided to replace the affected lamps with a new model that addressed the fire hazard. [redacted] The licensee also removed the existing stock of the affected lamps from the warehouse. Based on documentation review and interviews, the inspector determined that the corrective actions were appropriate. This item is closed.

4. Radiation Protection (TI 2600/006)

a. Routine Observations

(1) Scope and Observations

The inspector reviewed radiation work permits, radiological surveys, radiological precautions, and general work practices in the process area and in decommissioning and construction areas to verify that work was conducted safely and in compliance with the license. During tours of the facility, the inspector noted that radiological signs, postings, and procedures were properly posted or readily available. The inspector determined that equipment and devices used to confine and contain radioactive contamination and airborne radioactivity were in proper working condition and that proper personal protective clothing and dosimetry were issued and properly worn. Radiological controls in process and decommissioning areas were adequate. During process area tours, the inspector noted that housekeeping was adequate and emergency egress routes were sufficiently clear of debris. The inspector observed response to off-normal events and noted the use of conservative radiological controls practices to confine contamination and to prevent unnecessary personnel exposure.

[redacted]

(2) Conclusions

Radiological control practices met regulatory requirements.

5. Physical Protection (TI 2600/006)

[redacted]

6. Exit Interview

The inspection scope and results were presented to members of the licensee management at various meetings throughout the inspection period and were summarized on March 8, 2005. No dissenting comments were received from the licensee.

[redacted]

ATTACHMENT

1. PERSONS CONTACTED

Partial List of Licensee's Persons Contacted

K. Crutcher, Analytical Services Manager
B. Drane, Director, Site Services
R. Droke, NFS Licensing & Compliance Director/Acting Safety Director
D. Ferguson, CEO
B. Fore, Fuel Materials Manager
G. Grimaud, Senior Project Manager
N. Kenner, Training Manager
M. Moore, Vice President, Safety and Regulatory
J. Parker, Industrial Safety Manager
D. Paine, Vice President, BPF
J. Pugh, Transportation and Waste Manager
R. Rice, Radiation Monitoring Manager
J. Schreiber, Senior Project Manager
R. Shackelford, Nuclear Criticality Safety Manager
T. Sheehan, HEU Operations Director
M. Shope, Quality Assurance Manager
M. Tester, Sr. Manager, Radiation Control
A. Vaughn, Director, Fuel Production
A. Ward, Assistant General Counsel
J. Wheeler, ISA Manager
C. Woodhall, Director

2. INSPECTION PROCEDURES USED

TI 2600/006	Safety Operations, Safeguards, Radiological Controls & Facility Support
IP 88055	Fire Protection

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
70-143/2005-01-01	Open	VIO	Failure to conduct downblending operations in accordance with approved temporary procedure.
70-143/2005-01-02	Open	IFI	Control of temporary fixtures
70-143/2004-12-04	Closed	AV	Degraded SRE PLC

[redacted]

70-143/2005-01-03	Open	VIO	Failure of the SRE PLC to be capable of performing its function.
70-143/2004-08-05	Closed	IFI	Removal of lamps which are a fire hazard

4. LIST OF ACRONYMS USED

[redacted]	[redacted]
BLEU	Blended Low Enriched Uranium
BPF	BLEU Preparation Facility
CO_2	Carbon Dioxide
ECC	Emergency Control Center
EFD	Erwin Fire Department
IFI	Inspection Followup Item
IP	Inspection Procedures
IR	Inspection Report
ISA	Integrated Safety Analysis
IROFS	Item Relied on for Safety
NFPA	National Fire Protection Agency
NCS	Nuclear Criticality Safety
NFS	Nuclear Fuels Services
NRC	Nuclear Regulatory Commission
OCB	Oxide Conversion Facility
PLC	Process Logic Controller
PIRCS	Problem Identification, Resolution and Corrective Action System
QA	Quality Assurance
SNM	Special Nuclear Material
SRE	Safety Related Equipment
[redacted]	[redacted]
U-235	Uranium-235
UNB	Uranyl Nitrate Building
URI	Unresolved Item
VIO	Violation