



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

May 5, 2008

NMED Nos. 080012, 080056, 080185
EN Nos. 43883, 43937, 44104
EA-06-179

Mr. Dwight Ferguson
President
Nuclear Fuel Services, Inc.
P.O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NRC INSPECTION REPORT NO. 70-143/2008-001 AND NOTICE OF VIOLATION

Dear Mr. Ferguson:

This letter refers to the inspection conducted from January 1, 2008 to April 5, 2008, at the Nuclear Fuel Services (NFS) facility in Erwin, TN. The purpose of the inspection was to determine whether activities authorized under the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the findings were discussed on April 7, 2008, with those members of your staff identified in the enclosed report.

The inspection consisted of an examination of activities conducted under the license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the license. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities in progress, and interviews with personnel.

Based on the results of these inspections, the NRC has determined that two Severity Level IV violations of NRC requirements occurred. These violations were evaluated in accordance with the NRC Enforcement Policy included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

The violations are cited in the enclosed Notice of Violations (Notices), and the circumstances surrounding them are described in the subject inspection report. The violations are being cited in the Notice because they were identified by the NRC.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The guidance from NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective

D, Ferguson, Jr.

2

Action," is available on the NRC's Web Site and may be helpful. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In addition to the violations discussed above, a violation was also identified and treated as a Non-Cited Violation (NCV), consistent with Section VI.A of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest these violations or their significance, 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, and (3) the NRC Senior Resident Inspector at your facility.

We received your replies to our Notices of Violation 70-143/2007-008-01, 02, 03 and 2007-009-02, 03 (letters, dated January 25, 2008 and February 27, 2008). These replies met the requirements of 10 CFR 2.201 and your corrective actions were reviewed during this inspection or will be reviewed during a future inspection.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, if you choose to provide one, 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, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Should you have any questions concerning this inspection, please contact us.

Sincerely,

/RA/

D. Charles. Payne, 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 No. 70-143/2008-001

cc w/encls: (See page 3)

D. Ferguson, Jr.

3

cc w/encls:

Timothy Lindstrom
General Manager
Nuclear Fuel Services, Inc.
Electronic Mail Distribution

B. Marie Moore
Vice President
Safety and Regulatory Management
Nuclear Fuel Services, Inc.
Electronic Mail Distribution

Lawrence E. Nanney
Director
TN Dept. of Environment & Conservation
Electronic Mail Distribution

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

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

Johnny Lynch
Mayor
Town of Unicoi
Unicoi, TN 37692

Linda Modica
266 Mayberry Road
Jonesborough, TN 37659

Distribution w/encls: (See page 4)

D. Ferguson, Jr.

Distribution w/encls:

C. Evans, RII
 OE Mail
 PUBLIC
 S. Burris, RII
 M. Tschlitz, NMSS
 N. Baker, NMSS
 P. Habighorst, NMSS
 C. Payne, RII
 M. Crespo, RII
 G. Smith, RII
 K. Ramsey, NMSS
nmed@inl.gov

*see previous concurrence

X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE

ADAMS: X Yes ACCESSION NUMBER: _____

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	NMSS	DClassifier
SIGNATURE	MC for 5/5/08	MC for 5/5/08	RG 4/25/08	MC 4/254/08	AG for 4/30/08	ML 5/5/08
NAME	SBurris	GSmith	RGibson*	MCrespo*	DMorey	
DATE	5/ /2008	5/ /2008	5/ /2008	5/ /2008	5/ /2008	5/ /2008
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

NOTICE OF VIOLATION

Nuclear Fuel Services, Inc.
Erwin, Tennessee

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

During an NRC inspection conducted from January 1, 2008, through April 5, 2008, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, 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 8.4.3 of the License Application, "Items Relied on For Safety (IROFS)," requires, in part, that equipment designated as "safety related" (SRE) by the Integrated Safety Analysis, Process Hazard Analysis, or Internally Authorized Change process to be maintained and functionally tested in accordance with approved procedures.

Section 3.1 of Procedure NFS-GH-43, "Safety-Related Equipment Control Program," requires SRE tests to be documented in the computerized SRE management system.

The SRE management system requires annual testing of process sleeves in building 333. The system lists eleven sleeves identified N333PRSLEEVE001 through N333PRSLEEVE011, which are designated as IROFS. The testing requires a visual inspection of the process sleeves such that each can be verified to be present and intact. Additionally, the testing requires a visual inspection of the wall penetration to ensure no material is present.

Contrary to the above, since 2004, the licensee failed to adequately test eight of the eleven process sleeves due to the inability to visually verify the condition of the process pipe and sleeve. This visual verification was prevented by the installation of fire grout between the process pipe and sleeve.

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.

Section 2.7 of the License Application, "Procedures," states in part that SNM operations and safety function activities shall be conducted in accordance with approved written procedures.

Enclosure 1

Section 3.1.3 of the License Application, "Safety Procedures," states, in part, that activities performed for the safety program shall be in accordance with approved written procedures. These procedures, which instruct in duties such as radiological surveillance and monitoring, and collecting and analyzing samples, will be made available to personnel working in the safety function.

Procedure NFS-GH-01, "Contamination Control," Revision 26, Section 5.5 states "Disposable shoe covers, sleeve protectors, or other garments shall be put on upon entry to the special zone/dikes, Safety Work Permit (SWP) areas and temporary restricted areas, as required by postings or permits. Note, these disposable garments are in addition to the normal garments. These items shall be removed as the foot crosses the barrier and properly disposed of as individuals exit these areas. Designated containers are provided for disposal purposes."

Standard Operating Procedure (SOP) 409, "General Requirements for BLEU Preparation Facility," Section 1, Revision 20, Step 3.1.4.11 states, an SWP will contain the Personal Protective Equipment (PPE) requirements for other than normal operations. SOP 409, "Uranium Aluminum Dissolution," Section 10, Revision 19 states, in part, in Attachment VI that the Uranium-Aluminum work activities and PPE requirements for disposable gloves will be two pairs.

Contrary to the above, the following two examples were identified:

- On March 3, 2008, the inspectors identified that an operator, upon exiting the controlled area of Uranium-Aluminum, was wearing only one pair of latex gloves when two were required by the SOP 409 requirements.
- On March 4, 2008, the inspectors identified an operator removing PPE on the controlled side of Uranium-Aluminum and failed to step onto the step-off pad in accordance with Procedure NFS-GH-01.

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

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 Senior Resident Inspectors 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 previously 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.

Because your response will be made publicly available, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available 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 basis 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.

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

Dated this 5th day of May, 2008.

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-143

License No.: SNM-124

Report No.: 70-143/2008-001

Licensee: Nuclear Fuel Services, Inc.

Facility: Erwin Facility

Location: Erwin, TN 37650

Dates: January 1, 2008 - April 5, 2008

Inspectors: S. Burris, Senior Resident Inspector
G. Smith, Resident Inspector
R. Gibson, Senior Fuel Cycle Safety Inspector
M. Crespo, Senior Fuel Cycle Safety Inspector
D. Morey, Senior Criticality Safety Inspector

Approved by: D. Charles Payne, Chief
Fuel Facility Inspection Branch 1
Division of Fuel Facility Inspection

EXECUTIVE SUMMARY

Nuclear Fuel Services, Inc.
NRC Inspection Report 70-143/2008-001

This inspection included activities conducted by the resident , regional, and headquarters inspectors during normal and off normal shifts in the areas of plant operations, radiological protection, facility support, and transportation.

Safety Operations

- The inspector noted one instance of a failure to maintain an item relied on for safety (IROFS). A Non-Cited Violation (NCV) was identified as a result of the Building 333 downblending in-line radiation monitor being in an operable but degraded state. With the exception of this NCV, the facility was operated safely and in accordance with the license (Paragraph 2.a).
- A violation was identified dealing with the failure to adequately perform Safety-Related Equipment (SRE) testing on criticality control equipment in accordance with plant procedures (Paragraph 2.b).
- Fire protection and detection equipment was adequately maintained. Fire hazards were minimized by appropriate housekeeping (Paragraph 2.c).

Radiological Controls

- The external and internal exposure monitoring program was implemented in a manner that maintained doses as low as reasonably achievable (ALARA) and within the limits of 10 CFR 20.1201 (Paragraph 3.a).
- Radiation protection program self-assessments and procedure changes were implemented in accordance with the license requirements. The licensee had identified an upward trend in personnel contamination events and determined that the trend may be due to behavior in human performance and safety culture (Paragraph 3.b).
- Respiratory protection equipment issuance, maintenance, and training had been adequately implemented (Paragraph 3.c).
- Radiological control practices such as posting, special work permits (SWPs) and labels were adequate and generally met regulatory requirements. However, one violation was identified for two separate examples of failure to follow radiological protection procedures (Paragraph 3.d).
- The radiation survey program was adequately implemented (Paragraph 3.e).

Facility Support

- The inspectors determined that the licensee adequately implemented their Problem Identification and Resolution Correction System (PIRCS) program (Paragraph 4.a).

Followup on Events

- The inspectors determined that the licensee promptly conducted investigations, implemented corrective actions, and reported events to the Headquarters Operations Officer (Paragraph 5).

Followup on Previously Identified Issues

- Several items, including those from the March 6, 2006 spill event were closed out (Paragraph 6).

Attachment:

Partial List of Persons Contacted

Inspection Procedures Used

List of Items Opened, Closed, and Discussed

REPORT DETAILS

1. Summary of Plant Status

Fuel manufacturing, training activities, and scrap recovery processes were operated throughout the reporting period. BLEU oxide conversion activities operated normally during the inspection period. BLEU Preparation Facility (BPF) operations were conducted in accordance with license requirements.

2. Safety Operations

a. Plant Operations (Inspection Procedure (IP) 88135)

(1) Inspection Scope and Observations

The inspectors performed daily tours of the plant operating areas and determined that equipment and systems were operated safely and in compliance with the license. Daily operational meetings were observed throughout the period where production status and issues were discussed. The inspectors reviewed selected licensee identified events and corrective actions for previously identified events and found no significant deficiencies in the items reviewed.

The inspectors performed walkdowns of the BPF, Naval fuel process areas, storage areas, vaults, and the waste treatment facility. The inspectors verified that there was adequate staffing and that operators were attentive to their duties. The inspectors also verified that activities were performed in compliance with procedures and station limits, and that safety controls were in place and were being controlled with supervision. The inspectors verified procedural compliance within the operating areas. The inspectors walked down sections of the standard operating procedures and verified that IROFS were identified and operable in each of the areas. No issues were noted.

The inspectors observed modifications of equipment as well as the documentation and controls used to support these modifications in order to verify that: 1) work documents reflected the proper approvals and reviews of the proposed activities, 2) personnel were properly implementing these changes as designed, and 3) management oversight was evident during the work activities. Proper controls (Work Request, Lockout/Tagout, and Safety Work Permits) were in place and implemented during the work activities.

The inspectors toured processing, storage, and recovery areas and observed that personnel complied with approved, written nuclear criticality safety (NCS) limits and controls. The inspectors verified NCS limits were posted and available to the operators. Proper spacing practices and controls, use of storage locations, and identification of Special Nuclear Material (SNM) were also observed during tours of the facility and determined to be in accordance with the requirements. The inspectors performed various tours of the fuel process areas, BPF, and waste treatment facility. The inspectors verified that there was adequate staffing, operator attentiveness, compliance with procedures and station limits and verified that safety controls were implemented

and controlled. Communications were monitored between supervision and line operators to ensure that safety activities were being performed in accordance with design and administrative controls. Adequate oversight was provided by supervision. The inspectors verified procedural compliance within the operating areas.

The inspectors performed a detailed walkdown of Area 600 located within building 303. As part of this walkdown the inspectors reviewed the Integrated Safety Assessment (ISA) and the nuclear criticality safety evaluation to verify assumptions and controls were properly implemented in the field via engineered and administrative controls. The inspectors also verified that the personnel were aware of these assumptions and controls. The inspectors sampled various components and verified the as-built configuration matched the process drawings. IROFS were verified to be properly functioning and operators were knowledgeable of requirements associated with these IROFS. The inspectors also verified that there were no evident external hazards that could degrade system performance.

The inspectors performed a detailed review of the 100 area within building 302. The inspectors reviewed the ISA to verify that assumptions were properly implemented in the field via engineered and administrative control mechanisms. The inspectors also verified that no external hazards existed which could degrade system performance. In addition to this review, the inspectors performed a detailed walkdown of area 100/200 located within Building 302. As part of this walkdown the inspectors reviewed the criticality safety analysis to verify assumptions and controls were properly implemented in the field via engineered and administrative controls. The inspectors sampled various components and verified the as-built configuration matched the process drawings. IROFS were verified to be properly functioning and operators were knowledgeable of requirements associated with these IROFS.

The inspectors performed a detailed review of SWP/Radiological Work Permit (RWP) #12239. This SWP/RWP involved the replacement of a heating element in Area 600 of building 303. The inspectors verified that maintenance and operations personnel complied with the prescribed controls and precautions. The inspectors noted that the SWP contained adequate requirements concerning the radiation levels, respiratory equipment, dosimetry, contamination levels, special tools and equipment, airborne radioactivity, and containment devices. The area was effectively controlled by health physics personnel. The SWP/RWP was prominently posted for employees' review and observation. Workers entering the SWP area signed onto the SWP verifying their knowledge of the entry requirements.

On February 20, 2008, towards the end of a downblending evolution in Building 333, the process engineer noted that the in-line monitor reading was lower than normal by approximately 10 percent. This monitor is an IROFS for the downblending system. The process engineer notified the Non Destructive Assay (NDA) group as well as the NCS engineer and generated PIRCS #12688. The NDA specialist discovered that the detector trolley had shifted from its normal process monitoring position. The licensee determined however that the detector would still have functioned as required and was considered operable but degraded. The licensee was unable to determine exactly when the detector shifted. Initial corrective action included repositioning the detector and

performing the functional calibration. The licensee also installed a bracket in order to prevent future shifting of the detector and thus prevent recurrence. Failure to adequately maintain the BPF downblending in-line radiation monitor was a violation of NRC requirements. This non-repetitive licensee-identified and corrected violation is being treated as a NCV, consistent with Section VI.A.8 of the NRC Enforcement Policy and will be tracked as NCV 70-143/2008-001-01.

(2) Conclusions

A Non-Cited Violation was identified as a result of the down blending in-line radiation monitor being in an operable but degraded state. With the exception of this NCV, the licensee operated the facility safely and in accordance with the license requirements.

b. Criticality Safety (IP 88135)

(1) Inspection Scope and Observations

On March 4, 2008, the inspectors toured building 333 and noted the use of a larger than normal lay-flat bag. The inspectors questioned a criticality safety engineer on this usage. The engineer verified that this bag was 8" in size and larger than the normally permitted 6" lay-flat bag. The engineer wrote PIRCS item #12860 and authorized the use of the 8" bag in a written letter as required by Procedure NFS-HS-CL-26, "Nuclear Criticality Safety for BLEU Preparation Facility," Rev. 4. The failure to properly authorize the use of 8" lay-flat bags prior to use was identified as a violation of minor safety significance and therefore will not be subject to formal enforcement.

In November of 2007, the inspectors performed various walkdowns of process sleeve penetrations in Building 333. These sleeves are installed around process piping that penetrates walls. These sleeves are considered IROFS and serve to divert material away from the wall cavity to the outside of the wall in the event of a pipe failure since the inside wall cavity may present the potential for the accumulation of an unsafe geometry. As a result of these walkdowns, the inspectors noted that in eight out of a total of eleven sleeves (and penetrations) a fire sealant material (grout) covered the outside of the pipe such that it was not possible to determine the condition or existence of the sleeve. This fire grout was installed for the purpose of maintaining the integrity of fire separation walls. However, the inspectors verified that some penetrations containing the fire grout were located in walls that were not considered to be fire-rated walls. The inspectors also noted that the SRE annual testing required a visual verification that the HEU pipe was intact (i.e. no material present in the annulus) and the sleeve was present. Due to the installation of the fire grout, this was not possible. The inspectors informed the licensee of this discrepancy. Following a review of this issue, the licensee noted that the ISA addressed the issue of the fire grout. Specifically, the ISA assumed that any leaking material from the process pipe (assuming a fault) would degrade the grout present between the inner and outer pipe and visually appear on either side of the wall before acid corrosion of the stainless steel sleeve could occur. At this point, the licensee determined the issue to be closed.

On January 16, 2008, while reviewing the daily PIRCS issues, the inspectors noted PIRCS item #12283. This was written by a process engineer who had a concern regarding a similar sleeve located in a wall between buildings 302 and 303. In this case, the licensee noted that the SRE test for this particular sleeve could not be performed as written and management decided to discontinue future operations through this sleeve. The inspectors noted the similarities between the two issues and brought this to the attention of licensee management. The inspectors also noted that in some sleeves the fire grout was so thick that it could be possible for a leak of material to selectively corrode through the grout material and back into the wall cavity and never corrode to the outside wall. The corrosion path would effectively "bypass" the installed sleeve. This potential failure mode was presented to the licensee for resolution.

Following several discussions between the NRC and the licensee, NFS determined the event to be reportable on January 28, 2008 in accordance with 10 CFR 70.74, Appendix A(b)(1) as an unanalyzed condition where the performance requirements of 10 CFR Part 70.61 were not met. This was recorded in the Nuclear Material Events Database (NMED) as NMED No. 080056 and reported to the NRC as Event Number 43937. The documented periodic inspection was not adequate to verify the continued reliability and availability of the sleeves. The licensee also concluded that the discussion in the supported safety analysis was insufficient.

The immediate corrective actions included a visual inspection of all the sleeves which necessitated temporary removal of the fire grout as well as a NDA scan of the wall cavities in the vicinities of the subject sleeves. Long term corrective actions include a redesign of all the sleeves, relocation of others, and an update to the ISA. Failure of the plant staff to adequately perform SRE testing of IROFS is a violation of NRC requirements and will be tracked as VIO 70-143/2008-001-02.

(2) Conclusions

A violation was identified for the failure of the plant staff to adequately perform required annual SRE testing of several process sleeves in building 333 since 2004 (VIO 70-143/2008-001-02).

c. Fire Protection (IP 88135)

(1) Inspection Scope and Observations

On February 25, the inspectors toured the 306 building and noted a large amount of transient combustible materials in a loading area. The inspectors reviewed NFS-GH-62, "Control of Combustibles," Rev. 3. This procedure limits the amount of transient combustibles throughout the facility. This issue was brought to the attention of licensee management. The material was immediately removed from the area and PIRCS item #12734 was generated.

(2) Conclusions

The licensee adequately controlled the presence of transient combustibles.

3. Radiation Protection (IP 88030) (IP 88135)

a.. Internal/External Exposure Control

(1) Inspection Scope and Observations

The inspectors reviewed personnel exposure data to verify that exposures were maintained as low as reasonably achievable (ALARA) and within the limits of 10 CFR 20.1201. Table 1 displays the maximum assigned exposure data for calendar years (CY) 2006 and 2007. The doses were well below the regulatory limits requiring monitoring. The licensee continued to experience reduction in exposures at the plant, and attributed the reduction to the completion of the old feed material and the processing of the new feed material which has less external radiation levels. The maximum total effective dose equivalent (TEDE) for 2007 was 0.455 rem. The inspectors reviewed the program for monitoring exposures and determined that the exposure control program was adequately implemented.

The inspectors observed individuals throughout the facility including the BLEU Complex wearing the appropriate dosimeters and personal protective equipment (PPE). The inspectors reviewed the licensee's bioassay program and concluded that it was effectively maintained to control internal exposure. The inspectors noted that the internal exposure to personnel was less than one percent of the occupational limits in 10 CFR 20.1201 at the Navy Fuel and the BLEU facilities.

Table 1. Maximum Annual Dose Data

Year/Facility Location		Deep Dose Equivalent (DDE)-rem	Shallow Dose Extremity (SDE)-rem	Total Effective Dose Equivalent (TEDE)-rem	Collective TEDE (person-rem)	Committed Effective Dose Equivalent (CEDE) - rem
2006	Navy Fuel and BLEU	0.449	0.907	0.586	30.604	0.158
2007*	Navy Fuel and BLEU	0.434	N/A	0.455	41.672	0.163

* Reporting period from 1/1/07 through 12/31/07, the data for 2007 was current at the time of the inspection.

(2) Conclusions

The external and internal exposure monitoring program was implemented in a manner that maintained doses ALARA. Exposures were less than the occupational limits in 10 CFR 20.1201.

b. Radiation Protection Program Audits

(1) Inspection Scope and Observations

The inspectors reviewed the Radiation Protection (RP) program self-assessments. Self-assessment findings were captured and tracked in the licensee PIRCS system. Quarterly observations and management audits were provided to the ALARA Committee. The inspectors reviewed operating procedures for the health physicist technicians and noted that changes to the procedures were up to date, and the changes were included in the employee training.

The inspectors determined from a review of records and interviews with licensee representatives that the licensee had identified an upward trend in personnel contamination from the last quarter of 2007, to the first quarter of 2008. The licensee determined that the trend may have been attributed to human performance and safety culture.

In order to address the human performance issues at the plant, the licensee sought help from outside consultants. The licensee meets weekly to discuss training and the implementation of its human performance program.

(2) Conclusions

Radiation protection program self-assessments and procedure changes were implemented in accordance with the license requirements. The licensee had identified an upward trend in personnel contamination events and concluded that the trend may be due to degrading human performance and safety culture.

c. Respiratory Protection

(1) Inspection Scope and Observations

Respiratory protection equipment issuance and training were examined and determined adequate to ensure respiratory protection equipment was only obtained by certified users. The inspectors reviewed SWPs, observed radiological surveys, and noted radiological precautions, and general work practices during plant walk downs. The inspectors reviewed medical evaluations, fit-testing, training, cleaning and respirator storage records. The inspectors determined that the licensee maintained appropriate records and controls to demonstrate adequate implementation of the program.

The licensee contact discussed the respirator issuance process and demonstrated how a fit test would be performed on individuals before assigning respirators. During a tour of the facility, the inspectors observed several individuals at various plant locations using respirators as required by the SWP or operating procedure for the areas. The inspectors examined several storage locations and determined that respirators were adequately stored and maintained.

(2) Conclusions

Respiratory protection equipment issuance, maintenance, and training were adequately implemented.

d. Postings, Labeling and Control

(1) Inspection Scope and Observations

The radiological posting program was reviewed and radiation work was observed in accordance with SWPs and operating procedures. Equipment and devices used to confine and contain radioactive contamination and airborne radioactivity were in proper working condition, and PPE and dosimetry were properly worn as required by the SWPs. Several work locations were examined to determine if radioactive containers were properly labeled, and to assess the adequacy of the licensee's compliance with 10 CFR 20.1902, Posting Requirements. On March 3, 2008, a violation was identified when the inspectors noted that an operator, upon exiting the controlled area of U-Aluminum, was wearing only one pair of latex gloves when two were required by the SOP 409 requirements. In addition, on March 4, 2008, an operator was removing his PPE on the controlled side of U-Aluminum and failed to step onto the "step-off" pad in accordance with Procedure NFS-GH-01. The two examples of failure to follow procedures are identified as VIO 70-143/2008-001-03.

(2) Conclusions

Radiological control practices such as posting, SWPs and labels were adequate and generally met regulatory requirements. However, one violation was identified when the inspectors noted an operator exiting the controlled area of U-Aluminum wearing only one pair of latex gloves when two were required by the SOP 409 requirements. In addition, an operator while removing his PPE on the controlled side of U-Aluminum, failed to step onto the step-off pad in accordance with Procedure NFS-GH-01.

e. Surveys, Instruments and ALARA Program

(1) Inspection Scope and Observations

The inspectors reviewed survey documentation and observed technicians performing surveys in accordance with the procedures. During tours of the plant, the inspectors observed radiation technicians conducting job coverage of posted SWPs and collecting

fixed air samples for analysis. The inspectors reviewed survey documentation and observed technicians performing surveys in accordance with the procedures.

Instruments observed by the inspectors were operable and their calibrations were current. The inspectors reviewed the licensee's PIRCS system and interviewed staff members regarding their use of the system. The inspectors verified the licensee took immediate and effective actions for radiation and contamination control problems identified in PIRCS.

The ALARA program was reviewed and implemented in accordance with the license. The 2006 ALARA annual report was reviewed by management, and included detailed ALARA goals and exposure summaries to identify undesirable exposure trends.

(2) Conclusions

The contamination survey, radiation instrumentation calibration and maintenance, and the ALARA programs were adequately implemented to protect workers.

4. Facility Support

a. Management Organization and Controls (IP 88135)

(1) Inspection Scope and Observations

The inspectors performed daily reviews of the licensee's PIRCS entries to ensure that items adverse to requirements and quality were being identified and tracked to closure. The inspectors verified that issues were being properly identified, reviewed and tracked to completion.

(2) Conclusions

The inspectors determined that the licensee sufficiently documented and corrected adverse conditions.

5. Followup on Events (88135)

a. Inspection Scope and Observations

The inspector reviewed Event No. 44104 (NMED No. 080185) concerning the failure to properly scan Uranium/Aluminum (U/A) filters from BPF prior to placing in 55 gallon drums for disposal. The licensee used the default material values from the accountability program (NUMAC) as the actual values instead of the actual scanned values. The licensee initial evaluation of the events determined that the issue fell within the 24-Hour reporting requirements for failing to meet the performance criteria of 10 CFR 70.61 (Ref. 10 CFR Part 70 App A (b)(2)) and notified the NRC Headquarters Operations Officer on March 28, 2008, at 3:25 p.m. The event was also reported in the licensee's PIRCS program. The licensee's immediate corrective actions were to stop all

activity related to or packaging filters, scanned the suspect drums and provided an evaluation of the significance of the event. Based on the licensee's review of the actual material readings they determined that:

- There was not a criticality concern due to the low levels of material present.
- The actual values of the material in the drum as only approximately 40% above the operational limit and only 70% of the safety limits
- Re-scan of the filters were found to be less than the operational limits of 175 grams (109 and 57 grams).

The licensee is currently investigating the root cause of the event and will brief the residents upon completion of the investigation. The event was documented as a NCV in NRC Inspection Report 2008-202.

The inspectors reviewed Event No. 43883 (NMED No. 080012) concerning the failure of two of the Nuclear Criticality Detector pairs to properly generate an alarm signal when their trip point was exceeded. The licensee's initial evaluation of the events determined that the issue fell within the 24-Hour reporting requirements for failing to meet the criteria of 10 CFR Part 70.5 (b)(2) and notified the NRC Headquarters Operations Officer on January 5, 2008, at 5:03 p.m. The licensee was in the process of upgrading its criticality alarm system over the past several months by the installation of programmable logic controllers for future remote monitoring. After successfully testing the installed system components, the system was declared operable in late December 2007. On January 5, material operations were ceased in order to perform an additional installation of the Process Logic Controller. During testing, it was found that the detector pair that monitors the NDA station would not generate an alarm signal with one detector in alarm and the other in fault; and the detector pair that monitors Building 311 storage area would not generate an alarm signal with one detector in alarm and the other in fault, nor would the system generate an alarm signal if both detectors were in alarm condition. The licensee identified this as PIRCS item #12152. Both set of detectors were repaired, satisfactorily retested and returned to service.

b. Conclusions

Both of these issues were reported in the licensee's PIRCS. The licensee properly identified and corrected the issues and subsequently determined that these items were reportable as required by 10 CFR 70.

6. Followup on Previously Identified Issues

(Closed) VIO 70-143/2007-009-02: Entry into a controlled area without PPEs required by SWP and controlled area not posted as a radiologically controlled area. In the first example, the involved individual's Radiation Worker qualification was revoked. He was

given remedial training by health physics personnel on the objectives and requirements of implementing radiological safety controls. Also, the licensee is in the process of contracting an "ABC" analysis workshop focusing on human performance and safety culture involving PPE issues. In the second example, the licensee revised procedure NFS-GH-01 to define appropriate methods to control access to temporary areas. This item is closed.

(Closed) VIO 70-143/2007-008-01: Contractors working on roof without the required PPE as required by the posted SWP, workers in area 304 did not have the required PPE required by the posted SWP, and workers working on the 105 Laboratory Ventilation Scrubber without the required PPE as required by the posted SWP. In all three examples, the workers were re-instructed on the objectives and requirements of implementing radiological safety controls, and they had to complete a Radiation Worker Training practical exercise. Also, the licensee is in the process of contracting an "ABC" analysis workshop focusing on human performance and safety culture involving PPE issues. This item is closed.

(Closed) VIO 70-143/2007-008-002: A worker who was inadequately trained, opened a breaker that de-energized four criticality detectors which caused a criticality alarm and site evacuation, the operations supervisor failed to immediately evacuate the process area in order to shut down equipment, and plant personnel were authorized to re-enter the protected area without completion of the security related actions. The licensee labeled the detector breaker panel indicating that it is a CAAS system, and breaker locks have been added on all circuit breakers feeding the CAAS system to prevent inadvertent switching to the off position. The operations supervisor was re-instructed on the objectives and requirements of proper evacuation and response actions to a CAAS alarm. Security was given a tabletop criticality evacuation scenario to evaluate their search into the PA prior to allowing re-entry. This item is closed.

(Closed) VIO 70-143/2007-008-003: A facility operator opened 1F70 without closing the upstream isolation causing material to flow into a small cup and spraying back onto the body of the operator. Also, licensee personnel were performing troubleshooting activities on the area 800 equipment in accordance with an unapproved Maintenance Work Request. The SOP 409 was revised to include specific guidance on trouble shooting clogged lines for the BLEU Preparation Facility. The licensee bolstered the PPE requirements for trouble shooting clogs to include face shield and chemical apron. Tool Box training was given to all qualified work area administrators who produce work requests. This item is closed.

(Closed) VIO 70-143/2007-008-004: Additional smears for contamination surveys performed in the Navy fuel area and the BLEU Preparation Facility were not taken to define the extent of contamination outward from a contamination spot that exceeded the licensee applicable limits. In addition, the Area Supervision did not initial and date the applicable survey form indicating the Area supervisor's notification and the initiation of

decontamination actions. A toolbox training session was conducted for RTs concerning documentation of surveys, including having supervision initial the survey forms and marking the contaminated area boundaries. Also, the licensee is implementing a Human Performance program based on INPO's Human Performance Improvement model. This item is closed.

The inspectors also reviewed licensee corrective actions for apparent violations identified in inspection report 70-143/2006-006 related to the BLEU spill event. These apparent violations were discussed in the February 27, 2007, Alternative Dispute Resolution (ADR) confirmatory order which exercised discretion not to proceed with enforcement action but required a written response to the proposed violations. The licensee written response was provided on April 20, 2007, and included corrective actions associated with the apparent violations. The licensee corrective actions were reviewed and accepted by the NRC in the transmittal letter for inspection report 70-143/2007-007. The inspectors reviewed corrective action completion and adequacy through document reviews and interviews with licensee staff and management.

Proposed Licensee Corrective Actions

The inspectors identified and reviewed 12 proposed corrective actions from the licensee response that were longer term corrective actions related to the apparent violations. The inspectors assigned unique item numbers (e.g. **NFS ITEM #X**) to the licensee corrective actions for the purpose of internal consistency in this inspection report.

NFS ITEM #3a - Engineering Design Guide "Rule of Thumb" section was modified to include the preferred practice of having SNM-bearing process lines not be connected together but enter a vented vessel separately so that potential backflow paths are eliminated. The inspectors reviewed licensee PIRCS Item #3277 and the revised NFS Engineering Design Guide. The inspectors noted that the design guide now contains a suggestion that if multiple SNM bearing lines enter a vented vessel, each line should enter separately or consider other methods of backflow prevention. The inspectors determined that this corrective action is complete.

NFS ITEM #3b - NFS document NFS-NCS-DESIGN, "Nuclear Criticality Safety (NCS) Design Considerations" was generated and includes consideration of pits, sumps, elevator pits, sloping floors, collection points, facility legacy issues, out-of-service tanks/enclosures/lines, etc. This procedure is also a licensee job requirement for NCS Engineers and Project/Process Engineers. The inspectors reviewed licensee PIRCS Item #3277 and the new procedure and determined that it contained a substantial design discussion of the required items such as potential collection points. The inspectors determined that this corrective action is complete.

NFS ITEM #4a - NFS procedures NFS-GH-901, "Configuration Management," and NFS-HS-902, "Operational Readiness Review," were revised to require that systems/equipment not approved for use be physically isolated from SNM-bearing systems until approved by the Safety and Safeguards Review Council (SSRC). The

inspectors reviewed licensee PIRCS item #3278 and the updated version of the procedures and noted that they contained instructions for defining system boundaries and using a letter of authorization (LOA) for new connections. The inspectors determined that this corrective action is complete.

NFS ITEM #4b - NFS procedure NFS-GH-901, "Configuration Management," was revised to require an independent walkdown of systems being started up to verify no adjacent unapproved system/equipment are connected to the system starting up or affected facilities. The inspectors reviewed PIRCS item #3278 and the updated version of the procedures and noted that they contained instructions for performing independent reviews of new connections. The inspectors determined that this corrective action is complete.

NFS ITEM #5 - NFS procedure NFS-HS-A-62, "Implementation of Nuclear Criticality Safety Evaluations", was revised to require a specific walkdown be completed to verify that no system connections exist to any unapproved or out-of-service systems or equipment and documented in the Field Verification Control Flowdown. The procedure is a job requirement for NCS engineers. The inspectors reviewed the procedure and verified that the changes regarding system connections had been incorporated into section 6.1 of the procedure. The inspectors determined that this corrective action is complete.

NFS ITEM #6 - The Internal Authorized Change "Approval to Startup" form (Attachment F of NFS-GH-44) was revised to add a signature block for engineers to document walking down a system to ensure there are no SNM-bearing connections to unapproved equipment. The inspectors reviewed the procedure and verified that the attachment was incorporated as Appendix F. The inspectors determined that this corrective action is complete.

NFS ITEM #7 - The licensee held meetings with all employees during the week of March 30, 2006, and included in these meetings a discussion of the event and the responsibility of all employees to report unusual conditions. The inspector reviewed the contents of the employee briefings and determined that the briefings included appropriate discussion of the event and reporting of anomalous conditions. The inspectors determined that this corrective action is complete.

NFS ITEM #11 - A new procedure was developed to provide specific instructions on how to conduct a validation and verification (V&V) prior to startup of new structures, systems and components (SSC) or as an over check on existing SSC (NFS-GH-944). The inspectors determined that the new procedure had been developed and issued. The inspectors selected a V&V package at random and verified that the licensee has committed adequate resources to implement the process. The inspectors determined that this corrective action is complete.

NFS ITEM #14 - NFS procedure NFS-GH-43 ("Safety Related Equipment (SRE) Control Program") and SOP 398 (SRE Functional tests) was revised to be consistent with NFS-GH-901 ("Configuration Management"). The inspectors reviewed PIRCS item #3301 and the licensee changes to both procedures and determined that proposed consistency-related changes to clarify actions when an SRE test cannot be performed had been incorporated. The inspectors determined that this corrective action is complete.

NFS ITEM #26 - A briefing was held with NCS engineers regarding lessons learned associated with the discovery of the elevator pit and potential legacy issues. The inspectors reviewed memorandum WRS-060-010, dated May 25, 2006, and noted that briefings related to consideration of legacy issues were held with NCS staff during March and April of 2006. The inspectors determined that the licensee memorandum contained a detailed review of the solvent extraction NCS evaluation process that failed to identify the elevator pit. In addition to the briefings, the memorandum was distributed to NCS staff. The inspectors determined that this corrective action is complete.

NFS ITEM #29 - The licensee 2006 Annual Refresher Training and the Returning Worker Training included a discussion of the spill and elevator pit as well as lessons learned associated with the event. Lessons learned included actions to be taken when SNM is suspected or observed in a location where it should not be; awareness of unfavorable geometry items and equipment that have the potential to collect uranium-bearing solutions in the event of a leak or spill and that are not intended to contain SNM; equipment that is out-of-service or that has not been released for use should not be connected to active SNM-processing equipment. The inspectors reviewed the training material and noted that page seven of the Refresher Training contained the information discussed in the licensee corrective action. The inspectors determined that this corrective action is complete.

NFS ITEM #84 – NFS procedure SOP 392 , "Work Request Procedure," was modified to clarify the definitions and proper use of Minor 2 work requests and to identify qualification requirements for personnel authorized to initiate a Minor 2 work request. The inspectors reviewed the procedure and noted that the Engineering Director was now tasked to approve all Minor 2 work requests. The inspectors reviewed some recent examples and noted no significant issues. This corrective action is complete.

NFS ITEM #85 – Salaried job requirements were reviewed and updated to ensure Configuration Management related procedures were included in the job requirements where appropriate. The inspectors verified that the training requirements were in place and discussed with the new Configuration Management manager how the license amendment request regarding the Configuration management program would impact the training requirements. The manager stated that new training sessions would need to be conducted when the request is approved. The inspectors determined that this corrective action is complete.

NFS ITEM #110 – NFS procedure SOP 416 (“Control System Configuration Management Program”) was revised to include development of Function Requirement Definition for any electrical logic design impacting SRE. This facilitated clear communication of system requirements and the solution method/functionality between the Safety functions and Engineering. The inspectors reviewed the procedure and determined it adequately captured the requirements of the electrical SRE. The inspectors determined that this corrective action is complete.

NFS ITEM #113 - NFS Procedure NFS HS-A-93, “Nuclear Criticality Safety Posting Procedure” was issued. This procedure also describes the posting of out-of-service equipment and equipment that has not been released for use in SNM. In addition, the posting includes actions to notify NCS if SNM (or a substance that is not expected to be present that could be SNM based on appearance) is suspected or observed in the station. The inspectors determined that this corrective action is complete.

NFS ITEM #137 – NFS Procedure NFS-GH-901 (“Configuration Management”) was revised to require: 1) an approved standard operating procedure for SSCs is in place prior to establishing configuration control, 2) an approved procedure is in place to functionally test SSCs not yet under configuration control, and 3) procedures must be removed from use for SSCs removed from configuration control. The inspectors determined that the requirements of these modifications were captured in a checklist package for modifications of equipment. The inspectors reviewed some of the examples of recent use and noted no issues. The inspectors determined that this corrective action is complete.

NFS PIRCS #3423 – NFS developed a Precursor Identification procedure (NFS-GH-72) that created a new category in the PIRCS system. The inspectors reviewed the procedure and noted several examples of its use in the PIRCS system. The inspectors determined that this corrective action is complete.

NFS PIRCS #8325 – NFS benchmarking from site visits generated several best practices that were integrated into their PIRCS system. The practices involved the implementation of the following: 1) Common Cause Analysis process, 2) PIRCS entries for failure to enter a known issue into PIRCS, 3) review of problem reports prior to screening meetings with disposition plans, and 4) frequency diagrams that identify items in each major management area. The inspectors reviewed the above items with the PIRCS manager, as well as several examples of its implementation, and determined that this corrective action is complete.

Apparent Violations Status Summary

(Closed) APV 70-143/2006-006-01 - This violation concerned the licensee’s failure to notify the NRC within one hour of discovery of an event consisting of a spill of HEU material into an unapproved and unfavorable geometry enclosure when no safety controls or IROFS were available and reliable to prevent a nuclear criticality accident, as

required by 10 CFR 70, Appendix A, (a)(4)(ii). The inspectors identified three licensee corrective actions (NFS ITEM #7, NFS ITEM #26, and NFS ITEM #29) related to this violation and determined that the corrective actions were complete. This item is closed.

(Closed) APV 70-143/2006-006-02 - This violation concerned the licensee's failure to verify proper installation of the solvent extraction tray dissolver filter enclosure drains, as required by Safety Condition S-1 of the license and License Application Section 4.1.1.1.3. The inspectors identified 7 licensee corrective actions (NFS ITEM #3a, NFS ITEM #4a, NFS ITEM #4b, NFS ITEM #5, NFS ITEM #6, NFS ITEM #11, and NFS ITEM #14) related to this violation and determined that the corrective actions were complete. This item is closed.

(Closed) APV 70-143/2006-006-03 - This violation concerned the licensee's failure to establish management measures for the solvent extraction tray dissolver filter enclosure drain system as required by 10 CFR 70.62(d), which resulted in the failure to ensure that the filter enclosure met performance requirements of 10 CFR 70.61(d) for limiting the risk of a nuclear criticality accident under credible abnormal conditions. The inspectors identified 9 licensee corrective actions (NFS ITEM #4a, NFS ITEM #4b, NFS ITEM #5, NFS ITEM #6, NFS ITEM #11, NFS ITEM #14, NFS ITEM #26, NFS ITEM #29, and NFS ITEM #113) related to this violation and determined that the corrective actions were complete. This item is closed.

(Closed) APV 70-143/2006-006-04 - This violation concerned the failure to meet the requirements of 10 CFR 70.61(d), in that the solvent extraction room did not meet performance requirements for criticality safety with respect to the credible abnormal condition of fissile solution accumulation on the solvent extraction room floor when there were no controls available to prevent a spill of fissile solution from accumulating into an unsafe geometry elevator pit (EA-06-179). The inspectors identified 5 licensee corrective actions (NFS ITEM #3b, NFS ITEM #7, NFS ITEM #11, NFS ITEM #26, and NFS ITEM #29) related to this violation and determined that the corrective actions were complete. This item is closed.

(Closed) APV 70-143/2006-006-05 - This violation concerned the licensee's failure to assume, as required by the license and license application Section 4.1.1, in the tray dissolver system NCS analysis, the occurrence of a credible abnormal condition. Specifically, the licensee failed to assume that fissile solution could be misdirected from the solvent extraction feed transfer line to the tray dissolver filter enclosure. The inspectors identified one licensee corrective action (NFS ITEM #26) related to this violation and determined that the corrective action was complete. This item is closed.

(Closed) APV 70-143/2006-006-06 - This violation concerned the licensee's failure to establish a configuration management system to evaluate, implement, and track changes to filter enclosure M205 as required by 10 CFR 70.72(a). The inspectors identified six licensee corrective actions (NFS ITEM #3a, NFS ITEM #4a, NFS ITEM #4b, NFS ITEM #5, NFS ITEM #6, and NFS ITEM #11) related to this violation and determined that the corrective actions were complete. This item is closed.

(Closed) APV 70-143/2006-006-07 - This violation concerned the failure to conduct SNM operations and safety function activities with procedures, as required by Safety Condition S-1 of the license and Section 2.7 of the license application. The inspectors identified six licensee corrective actions (NFS ITEM #4a, NFS ITEM #4b, NFS ITEM #84, NFS ITEM #85, NFS ITEM #110, and NFS ITEM #137,) related to this violation and determined that the corrective actions were complete. The inspectors also noted that the licensee had properly submitted the license amendment for modifications to the configuration control program, which is under review at headquarters. This item is closed based on the completed actions by the licensee.

(Closed) APV 70-143/2006-006-08 - This violation concerned the failure to report to plant management, the discovery of previous instances of yellow material in enclosure 2M05, in accordance with Safety Condition S-1 of the license. The inspectors identified two licensee corrective actions in PIRCS related to this violation and determined that the corrective actions were complete. This item is closed.

7. Exit Meeting

The inspection scope and results were presented to members of the licensee management at various meetings throughout the inspection period and were summarized on April 7, 2008. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in the report.

ATTACHMENT

1. PERSONS CONTACTED

Partial List of Licensee's Persons Contacted

T. Lindstrom, General Manager
M. Moore, Vice President, Safety & Regulatory
J. Pugh, Director Operational Support
R. Bond, Senior Project Director, HEU Operations
R. Droke, Licensing Director
T. Coates, Engineering Section Manager
R. Shackelford, Nuclear Criticality Safety Manager
G. Athon, Vice President, Applied Technology/Principle Scientist
R. Maurer, Criticality Safety Engineer
N. Brown, Criticality Safety Engineer
M. Tester, Sr. Manager, Radiation Control
J. Parker, Industrial Safety Manger
K. Weir, Deputy Security Director
A. Vaughan, Director Fuel Production

2. INSPECTION PROCEDURES USED

IP 88030 Radiation Protection
IP 88055 Fire Protection
IP 88135 Resident Inspectors Program for Category 1 Fuel Cycle Facilities
IP 88005 Management Organization and Controls

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Item Number</u>	<u>Status</u>	<u>Type/Description</u>
70-143/2006-06-01	Closed	APV - Failure to notify the NRC in accordance with 10 CFR 70, Appendix A, (a)(4)(ii) reporting requirements (Paragraph 6).
70-143/2006-06-02	Closed	APV - Failure to verify proper installation of the tray dissolver filter enclosure drains prior to use of the system with fissile material (Paragraph 6).
70-143/2006-06-03	Closed	APV - Failure to meet the performance requirements of 10 CFR 70.61(d) for accident sequences related to handling fissile material in the tray dissolver system (Paragraph 6).

70-143/2006-06-04	Closed	APV - Failure to meet the performance requirements of 10 CFR 70.61(d) for accident sequences related to fissile solution accumulation on the solvent extraction room floor (Paragraph 6).
70-143/2006-06-05	Closed	APV - Failure to assume that fissile solution could be misdirected from the solvent extraction feed transfer line in NCS analysis for the tray dissolver system (Paragraph 6).
70-143/2006-06-06	Closed	APV - Failure to ensure that process systems not approved for use were isolated from active SNM-bearing systems and failure to implement facility change process requirements of 10 CFR 70.72 (Paragraph 6).
70-143/2006-06-07	Closed	APV - Failure to use a valid procedure to conduct licensed activities (Paragraph 6).
70-143/2006-06-08	Closed	APV - Failure to report the events concerning the yellow solution in the 2M05 enclosure in accordance with the requirements of Section 5.1 of NFS-GH-65 (Paragraph 6).
70-143/2008-01-01	Open/Closed	NCV - Failure to adequately maintain BPF downblending In-line Monitor (Paragraph 2.a.).
70-143/2008-01-02	Open	NOV - Failure to perform SRE testing in accordance with plant procedures (Paragraph 2.b.).
70-143/2008-01-03	Open	NOV - 2 examples of failure to follow radiological procedure requirements (Paragraph 3.d).
70-143/2007-008-01	Closed	VIO – Failure to follow radiological control procedures (Paragraph 6).
70-143/2007-008-02	Closed	VIO – Inadvertent Criticality Alarm (Paragraph 6).
70-143/2007-008-03	Closed	VIO – BPF spill resulting in personnel contamination (Paragraph 6).
70-143/2007-008-04	Closed	VIO – Inadequate contamination surveys (Paragraph 6).
70-143/2007-009-02	Closed	VIO – Failure to follow radiological procedures (Paragraph 6).