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June 4, 2008

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

References: 1) Docket No. 70-143; SNM License 124
2) NRC Inspection Report No. 70-143/2008-001 and Notice of Violation,
Dated May 5, 2008

Subject: Reply to Notice of Violation (VIO 70-143/2008-01-01 and VIO 70-143/2008-01-02)

Dear Sir:

Pursuant to the requirements of 10 CFR 2.201, Nuclear Fuel Services, Inc. (NFS) hereby submits the attached responses to the subject violations identified in the referenced NRC inspection report.

If you or your staff have any questions, require additional information, or wish to discuss this matter further, please contact me, or Mr. Michael C. Tester, Health Physics Manager, at (423) 743-2518 or Mr. Randy Shackelford, Nuclear Criticality Safety Manager, at (423) 743-2504. Please reference our unique document identification number (21G-08-0082) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

for B. Marie Moore
Vice President
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TE07

NMSS

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ATTACHMENT

**NFS Reply to Notice of Violation
VIO 70-143/2008-01-01**

Restatement of Violation

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 Material License No. SNM-124 authorizes the use of licensed material 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 NS-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 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).

The Reason for the Violation, or, if Contested, the Basis for Disputing the Violation or Severity Level

A variety of uranium-bearing solution lines penetrate walls in the uranium processing facilities. The solution lines are straight sections of pipe with no seams, welds, or connections that would be prone to leak. The piping material of construction is also compatible with the associated uranium-bearing solutions. In addition, a stainless steel pipe sleeve is present to provide an additional barrier to prevent uranium-bearing solutions from leaking inside building walls.

When the sleeved line penetrations were initially installed, some of the line penetrations were associated with fire separation walls. A fire sealant material (grout) was installed which covered the openings to the sleeves. This fire grout was installed for the purpose of maintaining the integrity of the fire separation walls. Fire grout was also installed over sleeve openings associated with non fire separation walls.

When the Safety-Related Equipment (SRE) tests were initially developed and issued for the sleeved line penetrations, the test instructions were believed to be adequate. The testing instructions included a visual inspection to determine that the process sleeving was present and intact as well as a visual inspection of the outer wall penetration to ensure that no solution was present. Personnel performing the test believed that the sleeving was present and intact because the sleeving was verified to be initially installed, the sleeving was stainless steel, and the outer ring of the sleeving could be seen through the grout (i.e., present and intact). Personnel also believed that an inspection of the external surface of the grout for solution was adequate since it was assumed that any uranium-bearing solution would degrade the grout and be seen on the wall surface prior to degrading the stainless steel sleeving. When the area Process Engineer performed the review of the SRE test instructions, it was identified that potential confusion existed regarding the ability to perform the instructions as written and the ability of the instructions to adequately test the safety function of the process sleeve.

The Corrective Steps That Have Been Taken and the Results Achieved

1. On January 15, 2008, during the initial two (2) year review of the process sleeve Safety-Related Equipment (SRE) testing/verification instructions, it was determined that the instructions could not be satisfactorily performed as written. This was primarily due to the presence of grout over the sleeve openings. The issue regarding whether the SRE test could be satisfactorily performed as written was reported in the NFS internal Problem Identification, Resolution and Correction System (PIRCS) as PIRCS Problem Identification #12283 by the area Process Engineer (Reference PIRCS Problem ID# 12883 dated January 15, 2008).
2. On January 28, 2008, after discussions with the NRC Resident Inspectors, a report was made to the NRC Operations Center regarding the issue of the process sleeves and the ability to verify the integrity of the sleeves (Reference NRC Event Report No. 43937, dated January 28, 2008).
3. Non-Destructive Analysis (NDA) scans were performed on the walls in the vicinity of the line penetrations. No holdup of uranium-bearing material was discovered during these scans (Reference NDA scan data dated January 29, 2008).
4. The Safety-Related Equipment (SRE) tests were revised to clarify the testing/verification instructions (Reference SRE tests for 14 process sleeves).
5. The Safety-Related Equipment (SRE) tests for 12 process sleeves were satisfactorily performed on February 4, 2008, February 6, 2008, February 18, 2008, and February 25, 2008 (Reference SRE test data). Two (2) of the process lines (piping) were re-routed to facilitate the inspection of the process sleeves. The tests for these two (2) process sleeves were satisfactorily performed on April 3, 2008 (Reference SRE test data). No evidence of solution was discovered in any of the process sleeves. A removable fire safety-approved material was placed in the sleeve openings that are associated with fire walls. This fire safety-approved material can be removed to facilitate inspections of the sleeve openings and replaced when the inspections are complete.

The Corrective Steps That Will Be Taken To Avoid Further Violations

In addition to the corrective steps taken above, all Safety-Related Equipment tests are being periodically reviewed for adequacy and revised as necessary (Reference LOA-MISC-07-054, "Periodic Verification of Safety-Related Equipment Tests," dated September 27, 2007).

The Date When Full Compliance Will Be Achieved

Full compliance was achieved on April 3, 2008 when the SRE tests for the remaining process sleeves were satisfactorily performed.

ATTACHMENT

**NFS Reply to Notice of Violation
VIO 70-143/2008-01-02**

Restatement of Violation

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:

- B. Safety Condition S-1 of Special Nuclear Material License No. SNM-124 authorizes the use of licensed material 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.

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 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).

The Reason for the Violation, or, if Contested, the Basis for Disputing the Violation or Severity Level

A common theme in these two examples was procedural non-compliance caused by Human Performance errors. Contributing factors were a lack of attention to detail on the part of the involved individuals with regard to specific protective clothing and /or radiological control requirements and an understanding of their importance.

The Corrective Steps That Have Been Taken and the Results Achieved

The individuals observed to be in noncompliance with the PPE requirements as defined in the referenced procedures have been counseled in regard to their undesired behavior, and the importance of attention to detail in procedural compliance re-emphasized. No further observations of non-compliance of this nature have been identified in this area.

The Corrective Steps That Will Be Taken To Avoid Further Violations

NFS is in the process of conducting an "ABC" analysis workshop on focused behavior for use of Personal Protective Equipment (PPE). This workshop consists of plant managers, supervisors and workers performing an analysis of desired and undesired behaviors as they relate to proper use of PPE. Finally, plant staff will develop behaviors they should perform to reinforce proper use of PPE.

NFS also expects improvements in performance as the organization continues the implementation of a Human Performance program based on INPO's Human Performance Improvement model. Implementation of training, communications and reinforcement for rigorous use of error prevention tools such as peer checks, holding pre-job briefs, and having a questioning attitude are in the process of being implemented. Leadership and a "top-down" commitment are visible through the General Manager and Vice-President of Safety and Regulatory who have devoted the organizations and their personal time and resources in the chartering of an implementation team for the NFS Human Performance program. Changes in behavior on safety culture deficiencies, such as those noted in this violation, are expected to be revealed through continued implementation of the safety culture assessment activities and performance metrics over an extended period of time.

The Date When Full Compliance Will Be Achieved

Reinstruction has been completed for the individuals involved in the two examples of noncompliance noted above, with full compliance achieved at that time.

However, as a long-term corrective action to improve procedure compliance, NFS is currently implementing the Human Performance Improvement program described above. NFS will be implementing this program throughout 2008 with the expectation of improved human performance by 2009.