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21G-16-0089
GOV-01-55-04
ACF-16-0161

May 26, 2016

Director
Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

- Reference:
- 1) Docket No. 70-143; SNM License 124
 - 2) NRC Inspection Report No. 70-143/2013-003 and Notice of Violation dated July 30, 2013
 - 3) NFS Reply to Notice of Violation (VIO-70-143/2013-003-01), dated August 29, 2013 (21G-13-0199)
 - 4) NRC Response to Disputed Notice of Violation 70-143/2013-003-01, dated November 14, 2013
 - 5) NFS Request for Date Extension for NFS Reply to Notice of Violation (VIO-70-143/2013-003-01), dated December 12, 2013 (21G-13-0271)
 - 6) NRC Approval of NFS Request for Date Extension to Provide Response to NRC Response to Disputed Notice of Violation 70-143/2013-003-01, dated December 18, 2013
 - 7) NFS Response to NRC Response to Disputed Notice of Violation (VIO 70-143/2013-003), dated January 31, 2014 (21G-14-0023)
 - 8) NFS Amendment No. 4 – Approval of Changes to License SNM-124, Chapter 7, Fire Safety, dated December 8, 2014
 - 9) NFS Authority Having Jurisdiction Equivalency Justification for Annual Functional Testing of Emergency Lights, dated January 23, 2015
 - 10) NRC Inspection Report No. 70-143/2015-002, dated April 17, 2015
 - 11) NRC Inspection Report No. 70-143/2016-002, dated April 29, 2016
 - 12) NFS Interim Action Supporting Permanent Resolution of Violation 70-143/2013-003-01, dated April 29, 2016 (21G-16-0082)

Subject: Revised Reply to Notice of Violation (VIO 70-143/2013-003-01)

Gentlemen:

Pursuant to the requirements of 10 CFR 2.201, Nuclear Fuel Services, Inc. (NFS) hereby submits the attached revised response to the subject violation identified in the referenced NRC inspection report (Reference 2). This letter supersedes the previous NFS response to Violation 70-143/2013-003-01, dated January 31, 2014, (Reference 7). NRC Region II and Headquarters

personnel discussed this matter at NFS on February 26, 2016, (Reference 11), and NFS agreed to submit a revised response to the violation.

If you or your staff have any questions, require additional information, or wish to discuss this matter further, please contact me at (423) 743-1705, or Mr. Randy Shackelford, Nuclear Safety and Licensing Manager, at (423) 743-2504. Please reference our unique document identification number (21G-16-0089) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.



Richard J. Freudenberger, Director
Safety and Safeguards

AAM/pj

Attachment: NFS Revised Reply to a Notice of Violation (VIO 70-143/2013-003-01)

Copy:

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Attachment

***NFS Revised Reply to a Notice of Violation
(VIO 70-143/2013-003-01)***

(3 pages to follow)

**NFS Revised Reply to Notice of Violation
(VIO 70-143/2013-003-01)**

Restatement of Violation

During an NRC inspection conducted June 24-28, 2013, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Safety Condition S-1 of Special Nuclear Material License SNM-124 requires that material be used in accordance with the statements, representations, and conditions in the application.

Section 7.4.1, Facility Design Criteria, of the License Application dated August 1, 2011, states that Nuclear Fuel Services, Inc. (NFS) buildings are designed and built to the requirements of NFPA 801, as well as, any applicable state, and local building, electrical, and fire codes in effect at the time of their construction.

Section 5.11 of NFPA 801, "Standard for Fire Protection for Facilities Handling Radioactive Materials," 2008 edition, states that "Emergency Lighting shall be provided for means of egress in accordance with NFPA 101, 'Life Safety Code'."

Section 7.9.3.1.1, Periodic Testing of Emergency Lighting Equipment, of the NFPA 101, 2009 version, states the "Functional Testing shall be conducted annually for a minimum of 1.5 hours if the emergency lighting system is battery powered."

Contrary to the above, prior to June 28, NFS failed to functional test the battery powered emergency lighting system annually for a minimum of 1.5 hours. Additionally, the licensee failed to identify an equivalency for the test in which it is demonstrated that the lights will work as intended.

This is a Severity Level IV violation.

Background

On July 30, 2013, per Reference 2, NFS received the Notice of Violation for failure to functionally test the battery powered emergency lighting system annually for a minimum of 1.5 hours. NFS replied to the Notice of Violation on August 29, 2013, per Reference 3. The NFS reply denied the violation on the basis that the NFS Authority Having Jurisdiction (AHJ) approved an equivalency with the NFPA codes based on prompt evacuation times, some emergency lights tied into the Uninterruptible Power Supply (UPS), and other programs that are not in place for public facilities where the NFPA code applies.

The NRC rejected the NFS denial of the violation with their letter dated November 14, 2013 (Reference 4). The NRC concluded that the NFS AHJ-approved equivalency evaluation did not provide sufficient technical documentation to demonstrate an NFPA code equivalency. NFS requested and received approval for a date extension to reply to the NRC's letter (References 5

and 6). Another response to the violation was submitted on January 31, 2014, per Reference 7. In this letter, NFS requested a meeting with representatives from NRC Region II and NRC Headquarters to discuss the AHJ roles and responsibilities to avoid further interpretation differences. The letter also included additional details to support an equivalency with the NFPA code.

In August of 2014, NFS proposed changes to our license, SNM-124, Chapter 7, Fire Safety. The changes were to clarify the license-defined roles and responsibilities of the Authority Having Jurisdiction (AHJ). The changes were approved through a license amendment issued on December 8, 2014 (Reference 8). The equivalency evaluation was updated in January 2015 to incorporate additional information from interactions with fire safety code experts (Reference 9).

During a 2015 fire protection inspection, the NRC inspector verbally informed NFS that he did not concur with the updated equivalency evaluation and also did not concur with the revision to the license. However, his comments were not documented in the Inspection Report (Reference 10) and the violation remained open following the inspection.

On February 26, 2016, a meeting was held at NFS' request with representatives from NRC Region II and NRC Headquarters. During this meeting, it was recognized that the revision to the license was appropriate, and compliance with the fire safety code could be achieved through an appropriately documented equivalency evaluation. An approach that may be acceptable could be a combination of expanding and justifying the monthly emergency light test for the requisite egress time and determining the minimum number of lights necessary for each area. NFS committed to revising and resubmitting the previous violation response with an updated plan and schedule of action. In addition, the NRC requested that the submittal include a discussion addressing the safety implications of the issue, while work continued to resolve the fire code compliance issue. This meeting and the follow-up actions are summarized in Reference 11.

On April 29, 2016, NFS provided a letter to the NRC addressing the issue from both a nuclear safety and personnel safety perspective. Additional compensatory measures were also described that would ensure personnel safety until compliance with the NFPA code is demonstrated (Reference 12).

The reason for the violation, or, if contested, the basis for disputing the violation or severity level

NFS did not perform the 1.5-hour test of the emergency lighting because of the potentially hazardous consequences resulting from the removal of power from the lights in order to perform the test; therefore, NFS approved a code deviation. As documented in NRC Inspection Report No. 70-143/2016-002, dated April 29, 2016 (Reference 11), NFS accepts that a code deviation should not have been authorized. Instead, per NFPA code, NFS should have documented an equivalency.

The corrective steps that have been taken and the results achieved

On April 29, 2016, NFS provided a letter to the NRC demonstrating why NFS was safe from a Nuclear Safety standpoint and that additional compensatory measures would be provided to ensure personnel safety until compliance is demonstrated with the NFPA code (Reference 12). The following corrective actions have been implemented as compensatory measures to ensure personnel safety until full compliance is obtained with the code requirements:

1. 30-second monthly tests have been and are continuing to be performed per the site Fire Protection Program.
2. Flashlights are staged at discrete locations within the SNM-124 controlled indoor areas for use by workers to exit the area if a total loss of both normal and emergency lighting occurs. (CA27009)
3. Temporary procedure instructions have been issued that provide workers (both those assigned to a specific work location and those transiting SNM-124 controlled areas) with direction on what actions to take upon loss of both normal and emergency lighting. The instructions list locations where flashlights are staged, the number of flashlights at each location, and the periodicity of inspection/replacement. These instructions have been added as part of the Training and Qualification requirements for workers that access SNM-124 controlled buildings. (CA27010)

The corrective steps that will be taken to avoid further violations

1. NFS will restore compliance with the NFPA 101 requirements through testing of emergency lights installed in the Material Access Area (MAA) by August 1, 2016. (CA27126)
2. NFS will restore compliance with the NFPA 101 requirements through testing of emergency lights installed in buildings (other than the MAA) handling radioactive materials by October 31, 2016. This is also the date by which full compliance will be achieved. (CA27127)
3. NFS will modify the current procedure for the annual emergency lights testing to reflect updated testing methods and to incorporate lessons learned from the 2016 test by June 30, 2017. (CA27128)

The date when full compliance will be achieved

Full compliance will be achieved by October 31, 2016, when annual testing of emergency lights in buildings handling radioactive materials is complete.