



Nuclear Fuel Services, Inc.

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

21G-18-0055
GOV-01-55-04
ACF-18-0108

May 14, 2018

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Reply to a Notice of Violation (VIO 70-143/2018-002-01)

References: 1) Docket No. 70-143: SNM License 124
2) NRC Inspection Report No. 70-143/2018-002 and Notice of Violation, dated April 19, 2018

Gentlemen:

Pursuant to the requirements of 10 CFR 2.201, Nuclear Fuel Services, Inc. (NFS), hereby submits the attached response to the subject violation identified in the referenced NRC inspection report (Reference 2).

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-18-0055) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

Richard J. Freudenberger, Director
Safety and Safeguards

RKR/lah

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Mr. Larry Harris
NRC Resident Inspector
U.S. Nuclear Regulatory Commission

Attachment

NFS Reply to a Notice of Violation

VIO 70-143/2018-002-01

(2 pages to follow)

**NFS Reply to a Notice of Violation
(VIO 70-143/2018-002-01)**

Restatement of Violation

During an NRC inspection conducted from February 5 to February 8, 2018, two examples of a violation of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

License condition S-1 states, in part, that the license is for “use in accordance with the statements, representations, and conditions in the application.” The two examples are listed below:

Section 4.7, “Radiological Surveys and Monitoring,” Subsection 4.7.12.4, “Criticality Detection System,” of the License Application states, in part, “The criticality alarm system meets the guidance established in ANSI/ANS (American National Standards Institute/American Nuclear Standard) 8.3 (1997), Criticality Accident Alarm Systems.”

- a. ANSI/ANS 8.3, “Criticality Accident Alarm System,” Section 5.6, “Detection Criterion,” requires that, “Criticality alarm systems shall be designed to respond immediately to the minimum accident of concern.”
- b. ANSI/ANS 8.3, “Criticality Accident Alarm System,” Section 6.4, “Periodic Tests,” requires that, “The entire alarm system shall be tested periodically.”

Contrary to the above, from October 1, 2011, to February 9, 2018, the licensee did not (1) design the Criticality Accident Alarm System (CAAS) to be able to respond to the minimum accident of concern while in Storm Mode; and, (2) perform tests of the Storm Mode logic when periodically testing the CAAS.

This is a Severity Level IV violation.

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

The errors that led to this violation were associated with a legacy issue that occurred in 2011. The apparent cause was process and procedure omissions which led to inadequate design and lack of technical review and authorization to implement the changes to initially institute Storm Mode. Since that time, the configuration management and maintenance processes have been revised to preclude similar errors.

The corrective steps that have been taken and the results achieved

The event was documented in the licensee's corrective action program as P63291. A team was assembled to identify causes and recommend corrective actions.

1. As an interim corrective action, use of Storm Mode was prohibited on February 8, 2018, via personal communications and formally prohibited on February 12, 2018, via LOA-HS-18-001 ("Deviation from NFS-HS-A-21, Revision 23").
2. NFS procedure NFS-HS-A-21 ("Operation and Testing of the Criticality, Fire and CO₂ Alarm Systems") was revised on May 7, 2018, to include a prohibition of using the Programmable Logic Controller (PLC) Storm Mode function. LOA-HS-18-001 was then deleted as this was a temporary administrative prohibition until NFS-HS-A-21 could be revised.
3. NFS procedures NFS-WM-001-1 ("Work Management Program Description", Revision 4, effective April 30, 2018) and NFS-WM-001-2 ("Work Control Process", Revision 4, effective April 20, 2018) were revised to clarify responsibilities to ensure all required supporting documentation associated with a "Change" is approved prior to implementation. The lack of appropriate supporting documentation as well as appropriate approvals was one of the causal factors associated with initial implementation of the Storm Mode change in 2011.

The results are that use of Storm Mode has been formally prohibited since February 12, 2018, which eliminated the non-compliant condition.

The corrective steps that will be taken

To disseminate the lessons learned associated with this event, a training toolbox will be developed for all personnel that initiate changes to Structures, Systems, or Components (SSC).

The date when full compliance will be achieved

Full compliance was achieved on February 12, 2018, when the use of the CAAS Storm Mode was formally prohibited.