



Nuclear Fuel Services, Inc.

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

21G-22-0075
GOV-01-55-04
ACF-22-0144

June 16, 2022

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

Subject: 30-Day Speaker Event (NRC Event No. 55902)

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

Dear Sir:

On May 19, 2022, at approximately 1145 hours (ET), Nuclear Fuel Services, Inc. (NFS) made a telephone notification to the Nuclear Regulatory Commission (NRC) Operations Center of an event for which 10 CFR 70.50(b)(2) requires a notification. This letter provides the 30-day written event notification.

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 Tom Holly, Licensing Manager, at (423) 743-2595. Please reference our unique document identification number (21G-22-0075) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

Tim Knowles, Director
Safety and Safeguards

TCH/las

Attachment: 30-Day Notification of Reportable Event

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NMSSD1
NMSS

Copy:

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

Attachment

30-Day Notification of Reportable Event

(3 pages to follow)

30-Day Notification of Reportable Event**1. The date, time, and exact location of the event**

The event in question occurred on May 18, 2022, at approximately 1450 hours (ET). Nuclear Fuel Services, Inc. (NFS) made the telephone report for this event on May 19, 2022, at approximately 1145 hours (ET). The event location is the NFS facility, located in the Town of Erwin, Unicoi County, Tennessee.

2. Radiological or chemical hazards involved, including isotopes, quantities, and chemical and physical form of any material released

There were no radiological or chemical hazards associated with this incident.

3. Actual or potential health and safety consequences to the workers, the public, and the environment, including relevant chemical and radiation data for actual personnel exposures to radiation or radioactive materials or hazardous chemicals produced from licensed materials (e.g., level of radiation exposure, concentration of chemicals, and duration of exposure)

An operable Criticality Accident Alarm Station (CAAS) is required per 10 CFR 70.24. There were no actual radiological or other nuclear safety consequences to the public, workers, or the environment. The potential consequences were that, in the event of a nuclear criticality accident, evacuation could have been delayed for those personnel outside the main processing area where redundant speakers have not been installed.

4. The sequence of occurrences leading to the event, including degradation or failure of structures, systems, equipment, components, and activities of personnel relied on to prevent potential accidents or mitigate their consequences

On May 18, 2022 at approximately 1450 hours (ET), an electrical switch for the (CAAS) legacy speakers was noted to be out of its normal position. A functional redundant speaker system is installed in the main processing plant and laboratory. As a consequence of the switch being out of position, in the highly unlikely event that the CAAS had actuated, the alarm would not have been annunciated in areas outside of the main processing area and laboratory where there are no redundant speakers. Compliance was restored at approximately 1500 hours (ET) when the switch was placed back in its normal position. The system was subsequently tested and confirmed to be operational. The most recent audibility test of the speaker system had been

performed on May 13, 2022 at approximately 1100 hours (ET). The licensee notified the NRC Resident Inspector on May 18, 2022 at approximately 1625 hours (ET). There were no actual nuclear safety consequences. Subsequent investigation revealed that the switch was likely placed out of position on May 13, 2022 at approximately 2022 hours (ET).

5. **The probable cause of the event, including all factors that contributed to the event and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned**

The probable cause of the event is that the procedure and form used to direct and document the switch alignment needed improvement. The form documented a series of actions necessary to perform a special alignment. However, the form did not specifically check that adjacent switches that were not intended to be operated were not inadvertently manipulated.

Other contributing causes included confusing displays and switch position and alignment issues that contributed to the initiating action of a worker placing the switch in an incorrect position. Additionally, use of some error prevention tools needed strengthening.

6. **Corrective actions taken or planned to prevent occurrence of similar or identical events in the future and the results of any evaluations or assessments**

The procedure and form used to complete this special alignment has been revised to document the condition of adjacent switches and indicators. The procedure was also revised to address use of human performance tools to prevent errors in operating the system. A training toolbox was generated to institute the changes to the procedure and form, as well as reinforce the importance of switch alignment.

Longer term actions scheduled to be completed include modifying the switch position indicators and displays, as well as improving the arrangements of components. Additionally, lesson plans will be modified to incorporate the lessons learned specific to this event.

7. **If the event involved an area or equipment with an approved Integrated Safety Analysis, whether the event was identified and evaluated in the Integrated Safety Analysis**

Not applicable

8. **The extent of exposure of individuals to radiation or radioactive materials**

There were no exposures of individuals to radiation or radioactive materials as a result of this event.