

NUCLEAR REGULATORY COMMISSION

[Docket No. 70-143, License No. SNM-124]

Nuclear Fuel Services, Inc.;  
Notice of Publication of Confirmatory Order and Opportunity for Hearing

The attached Confirmatory Order was issued on February 21, 2007. Although, originally, designated as Official Use Only, upon further review by NRC Staff, it has been determined that this Confirmatory Order can now be released publicly in its entirety, given that it does not identify current security issues. Accordingly, it is being published in the Federal Register to ensure that adequate notice has been given of an opportunity to request a hearing on the Confirmatory Order. The effective date of the Confirmatory Order remains February 21, 2007, and its publication in the Federal Register does not impose any new or different requirements on the licensee. Requests for hearing from anyone other than the licensee must be filed within 20 days of the date of publication of this Notice in accordance with Section VI of the Confirmatory Order.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

---

William D. Travers

Regional Administrator

Dated this 18<sup>th</sup> day of July 2007

ATTACHMENT

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	Docket No. 70-143
NUCLEAR FUEL SERVICES, INC.	)	License No. SNM-124
Erwin, Tennessee	)	

CONFIRMATORY ORDER MODIFYING LICENSE  
(EFFECTIVE IMMEDIATELY)

I

Nuclear Fuel Services, Incorporated (Licensee) is the holder of Special Nuclear Materials License No. SNM-124 issued by the Nuclear Regulatory Commission (NRC or Commission) pursuant to 10 CFR Part 70 on July 2, 1999. The license authorizes the operation of NFS (facility) in accordance with the conditions specified therein. The facility is located on the Licensee's site in Erwin, Tennessee.

This Confirmatory Order is the result of an agreement reached during alternative dispute resolution (ADR) sessions conducted on September 28 and November 30, 2006.

II

Recent NRC inspections and investigations at NFS have resulted in the identification of the following apparent violations for which escalated enforcement action is being considered:

- A. On June 22, 2005, an NFS supervisor willfully failed to wear a full face respirator while performing maintenance and repairs on a Building 302 calciner as required by Safety Condition S-1 of Special Nuclear Materials License No. SNM-124, Section

3.1.2 and 3.1.3 of the License Application, Procedure NFS-GH-03, "Radiation Work Permits, Revision 11, and Standard Radiation Work Permit (RWP # 05-04-032) (EA-06-129).

- B. On March 8, 2006, NFS failed to meet the performance requirements of Section IV of a July 2000 Confirmatory Order Modifying License and NFS Safeguards Contingency Response Plan, Revision 0; dated October 26, 2004; Section 3.3, Module 3, subparagraph 3.3.1, during a force-on-force exercise (EA-06-133).
- C. On May 31, 2005, an NFS acting building manager willfully transferred solvent extraction raffinate waste solution to the condensate waste storage area, Tank-5A01, without the approval of Building Supervision, Industrial Safety or NCS through work instructions, as required by Safety Condition S-1 of Special Nuclear Materials License No. SNM-124, Section 2.7 of the License Application, and Standard Operating Procedure (SOP) 409, Caustic and Condensate Discard Tank, Revision 2 (EA-06-141).
- D. On March 4, June 30, and November 9, 2005, and on May 13, 2006, NFS failed to secure or properly attend Special Nuclear Material, as required by the NFS Physical Protection Plan (PPP), Revision 2, Section 5.8; Storage of Strategic SNM, Subsection 5.8.3, Process Material Access Areas (EA-06-160).

- E. On March 6, 2006, NFS inadvertently transferred high enriched uranyl nitrate (HEUN) solution into an enclosure that was not approved for operation. The violations involved: (1) the 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 the credible abnormal condition; (2) the failure to notify the NRC within one hour of discovery of an event that constituted a condition whereby the licensee recognized that a spill of HEUN solution had occurred into an unapproved and unfavorable geometry enclosure and that no safety controls or items relied on for safety (IROFS) were available and reliable to prevent a nuclear criticality accident, as required by 10 CFR 70, Appendix A, (a)(4)(ii); (3) the failure to establish a configuration management system to evaluate, implement, and track changes to the filter enclosure M2O5 as required by 10 CFR 70.72(a); (4) the 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 License Application Section 4.1.1.1.3; (5) the failure to assume in NCS analysis for the tray dissolver system as required by the license and license application Section 4.1.1, that a credible abnormal condition could occur, specifically fissile solution being misdirected from the solvent extraction feed transfer line to the tray dissolver filter enclosure, as required by the license and license application Section 4.1.1; (6) 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; (7) the failure to report to plant management, the discovery of previous instances of yellow solution in enclosure 2M05, in accordance with Safety Condition S-1 of the license, Section 2.7 of the license application, Procedure NFS-HS-CL-26, Nuclear Criticality Safety for the BLEU Preparation Facility, Revision 3, April 29, 2005, Section 4.1.2, and Procedure NFS-GH-65, Problem Identification, Revision 3, October 6, 2005, Section 5.1; and (8) the failure to assure the requirements in 10 CFR 70.61(d) were met, 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 because there were no controls available to prevent a spill of fissile solution from accumulating into an unsafe geometry in the elevator pit (EA-06-179).

- F. On August 1, 2005, two security officers willfully failed to conduct a vehicle search, as required by NRC Interim Compensatory Measure Order, Attachment 1, Section B, dated August 21, 2002, and the NFS PPP, Revision 2, Module 6, Access Control Subsystems and Procedures, Subsection 6.2, Access Control at the Owner Controlled Area (EA-06-182).

## III

On September 28 and November 30, 2006, the NRC and NFS met in ADR sessions facilitated by a professional mediator, arranged through Cornell University's Institute on Conflict Resolution. ADR is a process by which a neutral mediator, with no decision-making authority, assists the parties in reaching an agreement to resolve their differences regarding a dispute.

During the ADR sessions, the parties discussed the apparent violations and NFS's overall enforcement history. Given the number and repetitive nature of some of the apparent violations, the parties acknowledged that: 1) past disposition of violations via the enforcement policy had not resulted in NFS's development of corrective actions capable of preventing recurrence of violations; 2) a deficient safety culture at NFS appeared to be a contributor to the recurrence of violations; and 3) a comprehensive, third party review and assessment of the safety culture at NFS represented the best approach for the identification and development of focused, relevant and lasting corrective actions.

With these considerations in mind, the following agreement was reached as documented in this Confirmatory Order:

- A. NFS will conduct, via a third-party, an independent safety culture assessment(s) within the parameters described in Section V below.

- B. Within 60 days of the date of this Order, NFS will submit, for NRC approval, a request to amend the license to revise the configuration management (CM) program. The amendment request will include a plan and schedule for implementation of the revised program.
- C. The NRC agrees, based on the terms of the agreement, that exercise of Enforcement Discretion is warranted for the EAs listed in Section II.A through F above, and the violations will not be cited.
- D. With respect to any potential enforcement action related to securing SNM after the process line shutdown, to the extent the NRC determines that a violation occurred, it will be included in the group of apparent violations for which discretion will be exercised, and the violation will not be cited.
- E. The proposed settlement excludes other potential escalated enforcement actions, including those that could result from issues previously identified in inspection reports and issues under review by the NRC's Office of Investigations. However, as part of its deliberations, the NRC will consider the extent to which violations that occur prior to or during implementation of the safety culture assessment, but no longer than 24 months from the date of this Order, are the result of safety culture deficiencies, such that NFS's implementation of the comprehensive safety culture

initiative warrants mitigation or other adjustment in any resultant enforcement actions.

On January 9, 2007, the Licensee consented to issuance of this Order with the commitments, as described in Section V below. The Licensee further agreed that this Order is to be effective upon issuance and the Licensee has waived its right to a hearing.

#### IV

Since the licensee has agreed to take additional actions to address NRC concerns, as set forth in Section III above, the NRC has concluded that its concerns can be resolved through confirmation of the Licensee's commitments as outlined in this Order.

I find that the Licensee's commitments as set forth in Section V are acceptable and necessary and conclude that with these commitments, the public health and safety are reasonably assured. In view of the foregoing, I have determined that public health and safety require that the Licensee's commitments be confirmed by this Order. Based on the above and the Licensee's consent, this Order is immediately effective upon issuance.



Accordingly, pursuant to Sections 51, 53, 161b, 161i, 161o, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202 and 10 CFR Part 70, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT LICENSE NO. SNM-124 IS MODIFIED AS FOLLOWS:

1. For purposes of this agreement, NFS does not dispute the apparent violations listed in Section II above. Within 60 days of the date of this Order, NFS will provide NRC written documentation of the reasons for the violations, the corrective actions taken and planned to prevent recurrence, and the completion dates for each corrective action.
2. The apparent violations associated with EA-06-179 raise concerns about configuration management (CM) that should be within the scope of the safety culture improvement program. Within 60 days of the date of the Order confirming this agreement, NFS will submit, for NRC approval, a request to amend the license to revise the CM management program. The amendment request will include a plan and schedule for implementation of the revised program.
3. NFS will conduct, via a third-party, an independent safety culture assessment(s), which includes nuclear material security, within the following parameters:

- a. Within 90 days of the date of the order confirming this agreement, NFS will identify contractor(s) for performing the independent third party safety culture assessment, will submit to NRC the name(s) and qualifications of the contractor(s) specifically, the experience of the contractor(s) in conducting a safety culture assessment, and will submit a plan and schedule for performing the safety culture assessment developed by the independent third party. The assessment shall include the 13 safety culture components discussed in the NRC's Regulatory Issue Summary 2006-013, dated July 31, 2006, and the commitments NFS made at the management meeting with NRC on September 18, 2006. The NRC will inform its review of NFS's submittal using the relevant guidance contained in NRC Inspection Procedure (IP) 95003 specifically, Sections 02.07 - 02.09, 03.07 - 03.09, and Enclosures A-F. NFS will not be bound by any specific provision of the NRC guidance document.
- b. Within 270 days of the date of this Confirmatory Order, the independent third party will complete its safety culture assessment.
- c. Ninety (90) days following completion (i.e., upon the third party's issuance of the report to NFS) of the safety culture assessment, NFS shall provide NRC the third party contractor's report documenting its findings and assessment of the safety culture at NFS and a plan and schedule for implementing assessment

recommendations and actions to address identified issues. Upon request by NRC, NFS shall also make available the supporting documentation and data compiled by and/or relied upon by the third party contractor in making its assessment.

- d. An acceptable safety culture implementation plan must include performance-based metrics that will be used to measure the success of the program.
- e. NFS will conduct an additional third-party safety culture assessment approximately 24 months following the completion (i.e., upon the third party's issuance of the report to NFS) of the initial assessment, and provide the report to the NRC.

The Director, Office of Enforcement, or the Regional Administrator, Region II, may, in writing, relax or rescind any of the above conditions upon demonstration by the Licensee of good cause.

## VI

Any person adversely affected by this Confirmatory Order, other than the Licensee, may request a hearing within 20 days of its issuance. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must

be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and include a statement of good cause for the extension. Any request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Chief, Rulemaking and Adjudications Staff, Washington, DC 20555-0001. Copies of the hearing request shall also be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, to the Assistant General Counsel for Materials Litigation and Enforcement at the same address, to the Regional Administrator, NRC Region II, 61 Forsyth Street, SW, Atlanta, Georgia, 30303, and to the Licensee. Because of potential disruptions in delivery of mail to United States Government offices, it is requested that answers and requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to [hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov) and also to the Office of the General Counsel either by means of facsimile transmission to 301-415-3725 or by e-mail to [OGCMailCenter@nrc.gov](mailto:OGCMailCenter@nrc.gov). If a person other than the licensee requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.309(d) and (f).

If the hearing is requested by a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held, the issue to be considered at such hearing shall be whether this Confirmatory Order should be sustained.

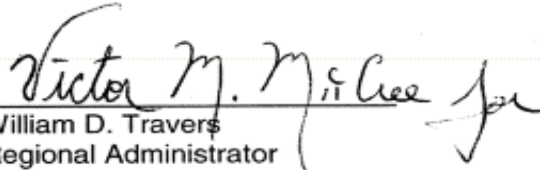
In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section V above shall be final 20 days from the

date of this Order without further order or proceedings. If an extension of time for requesting a hearing has been approved, the provisions specified in Section V shall be final when the extension expires if a hearing request has not been received.

AN ANSWER OR A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

FOR THE NUCLEAR REGULATORY COMMISSION

*/s/ Victor M. McCree for*

  
\_\_\_\_\_  
William D. Travers  
Regional Administrator

Dated this 21st day of February 2007