



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

January 16, 2004

EA-03-178

Nuclear Fuel Services, Inc.
ATTN: Mr. Kerry Schutt
President
P. O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NRC OFFICE OF INVESTIGATIONS REPORT NO. 2-2003-024 (NRC
INSPECTION REPORT NO. 70-143/2002-011)

Dear Mr. Schutt:

This refers to the Nuclear Regulatory Commission's (NRC) inspection conducted on November 24, 2002 - January 18, 2003, at your facility located in Erwin, Tennessee. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. This letter also refers to an investigation completed by the NRC's Office of Investigations (OI) on July 25, 2003. The purpose of the OI investigation was to determine whether a Nuclear Fuel Services, Inc., (NFS) decommissioning supervisor deliberately falsified records related to the transfer of low-enriched uranium (LEU) solution. The OI investigation substantiated that the decommissioning supervisor willfully authorized the transfer of LEU solution without conducting required verifications and reviews prior to and/or during the transfer. OI did not substantiate that records were deliberately falsified. A copy of the synopsis to the OI report is included as Enclosure 1.

Based on the results of the inspection, an apparent violation was identified and is being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The current Enforcement Policy is included on the NRC's Web site at www.nrc.gov; select What We Do, Enforcement, then Enforcement Policy. The apparent violation involved the transfer of LEU solution without conducting required verifications and reviews prior to and/or during the transfer. These actions resulted in a non-compliance with the following: NFS License Condition S-1; Section 2.7 of NFS's License Application; NFS Letter Of Authorization (LOA) - 8828-036, "Handling Miscellaneous Solutions During the [REDACTED] D&D Projects"; and [REDACTED] (addendum to LOA-8828-036), which required supervision to perform verifications, reviews, and observations during this operation.

The circumstances surrounding the apparent violation and the significance of the issue was discussed with members of your staff during an exit meeting conducted on January 22, 2003, during a public meeting of December 19, 2003, and again on January 15, 2004. As a result, it may not be necessary to conduct a predecisional enforcement conference in order to enable the NRC to make an enforcement decision.

Before the NRC makes an enforcement decision however, we are providing NFS an opportunity to either 1) respond to the apparent violation, in writing, within 30 days of the date of this letter

or 2) request a predecisional enforcement conference. Should you request a predecisional enforcement conference, it will be closed to public observation because the issue involves an OI investigation related to potential willfulness. The NRC also will issue a press release to announce the conference. Please contact David Ayres at 404-562-4711 within 7 days of the date of this letter to notify the NRC of your intended response.

If you choose to provide a written response, it should be clearly marked as a "Response to Apparent Violations; EA-03-178" and should include: 1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation, 2) the corrective steps that have been taken and the results achieved, 3) the corrective steps that will be taken to avoid further violations, and 4) the date when full compliance will be achieved.

Based on the NRC's review, it appears that a causal factor for the first line supervisor's willful actions was a lack of clear direction from NFS management which tasked this individual to perform multiple oversight activities and conflicting work assignments (in this case, asbestos abatement activities and LEU solution transfer activities). In your written response or at a predecisional enforcement conference, please describe the results of your root cause analysis for the apparent violation, the extent of your corrective actions as they relate to the apparent violation and other departments at your facility, and any specific management controls that have been implemented to preclude recurrence of this situation in the future. Additionally, please address the safety controls that were in place during the transfer operation, including how your staff met double contingency requirements.

In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations. The guidance in the enclosed excerpt from NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," may be helpful.

Your response should be submitted under oath or affirmation and may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a predecisional enforcement conference. Please be advised that the number and characterization of the apparent violations may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations in this matter.

In addition to the aforementioned apparent violation that is being considered for escalated enforcement, the NRC identified an additional apparent violation of lesser safety significance, which will not be subject to escalated enforcement. This apparent violation occurred from September 9, 2002, through January 12, 2003, and involves a non-compliance with Safety Condition S-1 of your Special Nuclear Materials License, and Section 4.1.2 of the license application, in that an adequately detailed criticality safety analysis was not performed when changes were made to existing equipment and procedures to process licensed material where more than a safe mass existed and double batching was possible. The NRC will disposition this apparent violation in future correspondence, concurrent with the disposition of the apparent violation involving the transfer of LEU solution. No response is requested from NFS at this time regarding this additional apparent violation.

NFS, Inc.

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In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (should you choose to provide one) will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS) accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

If you have any questions about this inspection, please contact Mr. David Ayres of my staff at the number provided above.

Sincerely,

/RA/

Douglas M. Collins, Director
Division of Fuel Facilities Inspection

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

Enclosures:

1. Synopsis to OI Report 2-2003-024
2. NRC Information Notice 96-28

cc w/encls:

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Vice President
Safety and Regulatory Management
Nuclear Fuel Services, Inc.
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OFFICE	RII:DFFI	RII:EICS	
SIGNATURE	/RA/	/RA/	
NAME	DMCollins	C.Evans	
DATE	1/16/04	1/16/04	
E-MAIL COPY?	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML040200551.wpd

SYNOPSIS

The U.S. Nuclear Regulatory Commission, Office of Investigations (OI), Region II (RII), initiated this investigation on April 11, 2003, to determine if a Nuclear Fuel Services, Inc., Erwin, Tennessee, decommissioning supervisor deliberately falsified records documenting the transfer of low-enriched uranium (LEU) solution.

Based on the evidence, documentation, and testimony developed during this investigation, and coordination with the RII technical staff, OI:RII found insufficient evidence to substantiate that a decommissioning supervisor deliberately falsified records pertaining to the transfer of LEU. However, OI:RII determined the decommissioning supervisor wilfully authorized the transfer of LEU solution without conducting required verifications and reviews prior to and/or during the transfer. Further, the decommissioning supervisor's documentation of the transfer resulted in the recording of inaccurate information pertaining to the transfer.

Enclosure 1

Approved for release on January 14, 2004 - SES

~~NOT FOR PUBLIC DISCLOSURE WITHOUT APPROVAL OF
FIELD OFFICE DIRECTOR, OFFICE OF INVESTIGATIONS, REGION II~~

Case No. 2-2003-024

NOTE: The following information is an updated excerpt from an NRC Information Notice (96-28) issued in 1996.

NRC INFORMATION NOTICE 96-28

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, D.C. 20555

May 1, 1996

NRC INFORMATION NOTICE 96-28: SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION

Addressees

All material and fuel cycle licensees.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to provide addressees with guidance relating to development and implementation of corrective actions that should be considered after identification of violation(s) of NRC requirements. It is expected that recipients will review this information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not new NRC requirements; therefore, no specific action nor written response is required.

Background

On June 30, 1995, NRC revised its Enforcement Policy (NUREG-1600)¹ 60 FR 34381, to clarify the enforcement program's focus by, in part, emphasizing the importance of identifying problems before events occur, and of taking prompt, comprehensive corrective action when problems are identified. Consistent with the revised Enforcement Policy, NRC encourages and expects identification and prompt, comprehensive correction of violations.

In many cases, licensees who identify and promptly correct non-recurring Severity Level IV violations, without NRC involvement, will not be subject to formal enforcement action. Such violations will be characterized as "non-cited" violations as provided in Section VI.A of the Enforcement Policy. Minor violations are not subject to formal enforcement action. Nevertheless, the root cause(s) of minor violations must be identified and appropriate corrective action must be taken to prevent recurrence.

If violations of more than a minor concern are identified by the NRC during an inspection, licensees will be subject to a Notice of Violation and may need to provide a written response, as required by 10 CFR 2.201, addressing the causes of the violations and corrective actions taken to prevent recurrence.

¹Copies of NUREG-1600 can be obtained by calling the contacts listed at the end of the Information Notice.

ENCLOSURE 2

In some cases, such violations are documented on Form 591 (for materials licensees) which constitutes a notice of violation that requires corrective action but does not require a written response. If a significant violation is involved, a predecisional enforcement conference may be held to discuss those actions.

The quality of a licensee's root cause analysis and plans for corrective actions may affect the NRC's decision regarding both the need to hold a predecisional enforcement conference with the licensee and the level of sanction proposed or imposed.

Discussion

Comprehensive corrective action is required for all violations. In most cases, NRC does not propose imposition of a civil penalty where the licensee promptly identifies and comprehensively corrects violations. However, a Severity Level III violation will almost always result in a civil penalty if a licensee does not take prompt and comprehensive corrective actions to address the violation.

It is important for licensees, upon identification of a violation, to take the necessary corrective action to address the noncompliant condition and to prevent recurrence of the violation and the occurrence of similar violations. Prompt comprehensive action to improve safety is not only in the public interest, but is also in the interest of licensees and their employees. In addition, it will lessen the likelihood of receiving a civil penalty. Comprehensive corrective action cannot be developed without a full understanding of the root causes of the violation.

Therefore, to assist licensees, the NRC staff has prepared the following guidance, that may be used for developing and implementing corrective action. Corrective action should be appropriately comprehensive to not only prevent recurrence of the violation at issue, but also to prevent occurrence of similar violations. The guidance should help in focusing corrective actions broadly to the general area of concern rather than narrowly to the specific violations. The actions that need to be taken are dependent on the facts and circumstances of the particular case.

The corrective action process should involve the following three steps:

1. Conduct a complete and thorough review of the circumstances that led to the violation.

Typically, such reviews include:

- Interviews with individuals who are either directly or indirectly involved in the violation, including management personnel and those responsible for training or procedure development/guidance. Particular attention should be paid to lines of communication between supervisors and workers.
- Tours and observations of the area where the violation occurred, particularly when those reviewing the incident do not have day-to-day contact with the operation under review. During the tour, individuals should look for items that may have contributed to the violation as well as those items that may result in future violations. Reenactments (without use of radiation sources, if they were involved in the original incident) may be warranted to better understand what actually occurred.
- Review of programs, procedures, audits, and records that relate directly or indirectly to the violation. The program should be reviewed to ensure that its overall objectives and

requirements are clearly stated and implemented. Procedures should be reviewed to determine whether they are complete, logical, understandable, and meet their objectives (i.e., they should ensure compliance with **the current** requirements). Records should be reviewed to determine whether there is sufficient documentation of necessary tasks to provide an auditable record and to determine whether similar violations have occurred previously. Particular attention should be paid to training and qualification records of individuals involved with the violation.

2. Identify the root cause of the violation.

Corrective action is not comprehensive unless it addresses the root cause(s) of the violation. It is essential, therefore, that the root cause(s) of a violation be identified so that appropriate action can be taken to prevent further noncompliance in this area, as well as other potentially affected areas. Violations typically have direct and indirect cause(s). As each cause is identified, ask what other factors could have contributed to the cause. When it is no longer possible to identify other contributing factors, the root causes probably have been identified. For example, the direct cause of a violation may be a failure to follow procedures; the indirect causes may be inadequate training, lack of attention to detail, and inadequate time to carry out an activity. These factors may have been caused by a lack of staff resources that, in turn, are indicative of lack of management support. Each of these factors must be addressed before corrective action is considered to be comprehensive.

3. Take prompt and comprehensive corrective action that will address the immediate concerns and prevent recurrence of the violation.

It is important to take immediate corrective action to address the specific findings of the violation. For example, if the violation was issued because radioactive material was found in an unrestricted area, **immediate** corrective action must be taken to place the material under licensee control in authorized locations. After the immediate safety concerns have been addressed, timely action must be taken to prevent future recurrence of the violation. Corrective action is sufficiently comprehensive when corrective action is broad enough to reasonably prevent recurrence of the specific violation as well as prevent similar violations.

In evaluating the root causes of a violation and developing effective corrective action, consider the following:

1. Has management been informed of the violation(s)?
2. Have the programmatic implications of the cited violation(s) and the potential presence of similar weaknesses in other program areas been considered in formulating corrective actions so that both areas are adequately addressed?
3. Have precursor events been considered and factored into the corrective actions?
4. In the event of loss of radioactive material, should security of radioactive material be enhanced?
5. Has your staff been adequately trained on the applicable requirements?

6. Should personnel be re-tested to determine whether re-training should be emphasized for a given area? Is testing adequate to ensure understanding of requirements and procedures?
7. Has your staff been notified of the violation and of the applicable corrective action?
8. Are audits sufficiently detailed and frequently performed? Should the frequency of periodic audits be increased?
9. Is there a need for retaining an independent technical consultant to audit the area of concern or revise your procedures?
10. Are the procedures consistent with current NRC requirements, should they be clarified, or should new procedures be developed?
11. Is a system in place for keeping abreast of new or modified NRC requirements?
12. Does your staff appreciate the need to consider safety in approaching daily assignments?
13. Are resources adequate to perform, and maintain control over, the licensed activities? Has the radiation safety officer been provided sufficient time and resources to perform his or her oversight duties?
14. Have work hours affected the employees' ability to safely perform the job?
15. Should organizational changes be made (e.g., changing the reporting relationship of the radiation safety officer to provide increased independence)?
16. Are management and the radiation safety officer adequately involved in oversight and implementation of the licensed activities? Do supervisors adequately observe new employees and difficult, unique, or new operations?
17. Has management established a work environment that encourages employees to raise safety and compliance concerns?
18. Has management placed a premium on production over compliance and safety? Does management demonstrate a commitment to compliance and safety?
19. Has management communicated its expectations for safety and compliance?
20. Is there a published discipline policy for safety violations, and are employees aware of it? Is it being followed?

This information notice requires no specific action nor written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below.

Michael F. Weber, Director
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety

Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety
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and Safeguards

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Technical contacts: (Updated as of September 30, 2002)

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