

[REDACTED]

August 24, 2005

Ms. B. Marie Moore, Vice President  
Safety and Regulatory  
Nuclear Fuel Services, Inc.  
P.O. Box 337, MS 123  
Erwin, TN 37650

SUBJECT: NUCLEAR FUEL SERVICES, INC. - AMENDMENT 64 - REQUEST FOR  
CHANGES TO CERTAIN ADMINISTRATIVE PROGRAMS (TAC L31862)

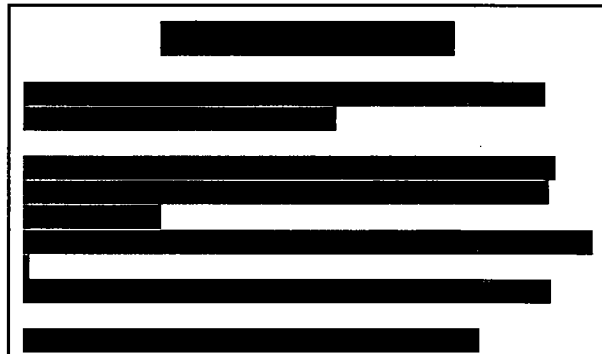
Dear Ms. Moore:

Your application dated December 3, 2004, and supplement letter dated June 22, 2005, proposed several changes to Material License SNM-124, and the license application. The Nuclear Regulatory Commission (NRC) is accepting your request for those changes for which we have completed our review.

In accordance with your request, and pursuant to Part 70 to Title 10 of the Code of Federal Regulations, Materials License SNM-124 is hereby amended to:

(1) Revise the definitions of low-enriched uranium, and high enriched uranium in the License Application, Chapter 1, Section 1.7.2, and Chapter 4.2.1.6. Accordingly, these definitions are revised as follows:

Section 1.7.2      As used in this application for license renewal, the term "low-enriched uranium" is defined as any compound of uranium in which the enrichment in the isotope uranium-235 is less than 20 percent by weight. The terms "high enriched uranium" or "highly enriched uranium" is defined as any compound of uranium in which the enrichment in isotope uranium-235 is equal to or greater than 20 percent by weight.



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Section 4.2.1.6 Low-enriched uranium materials are defined as those having less than 20 weight percent  $^{235}\text{U}$  content. Materials containing greater than or equal to 20 weight percent  $^{235}\text{U}$  are considered high-enriched. Fully enriched materials are assumed to be 100 weight percent  $^{235}\text{U}$ .

(2) Delete Chapter 2, Section 2.9.3, and references to reporting unusual occurrences (Bulletin 91-01). These revisions are as follows:

Section 2.9.3 (Deleted)  
Table 2.1 (Deleted)

Section 2.9.1 Classification of Unusual Occurrences  
Unusual occurrences which potentially threaten or lessen the effectiveness of health, safety, and environmental protection are classified by the appropriate safety function manager. Each incident is considered in terms of its severity.

Section 2.12.6 On page 43, delete reference to "Unusual Occurrences (as described in Section 2.9.2 Investigation of Unusual Occurrences)."

(3) Delete Chapter 2, Section 2.11 "Special Programs." Revise the license application to read:

Section 2.11 (Deleted)

(4) Include the requirement for a fire brigade in Chapter 6, Section 6.2, of the license application by adding a seventh bullet:

- Maintaining an industrial fire brigade in accordance with industry standards (NFPA 600), and proceduralizing methods for the rapid response of external firefighting resources when sufficient fire brigade staffing is unavailable.

In addition, the following revisions are made to the License Conditions:

- (1) Revise License Condition S-1 to add the supplement dated "December 3, 2004 (except section 1.7.21. and relaxing the review frequency of operating procedures by the safety review committee)."
- (2) S-21 Deleted by Amendment No. 64, dated August 2005.

All other conditions of this license will remain the same.

Enclosed are copies of the amended Materials License SNM-124, and the Safety Evaluation Report, that includes the Environmental Review.

B. Moore

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Concerning other changes that you requested, NRC staff continues to review your requests related to: (1) deletion of Section 1.7.21, and License Condition S-40 concerning Safety Related Equipment, and Configuration Controlled Equipment, and (2) relaxing the review frequency of operating procedures by the Safety Review Committee.

This letter closes Technical Assistance Control (TAC) number L31862. The NRC's review of the two remaining issues has been assigned TAC No. L31904. Please reference this number in any future correspondence associated with this request.

If you have any questions regarding this matter, please contact Breeda Reilly of my staff at (301) 415-8103 or via e-mail to [bmr@nrc.gov](mailto:bmr@nrc.gov).

This letter contains sensitive, unclassified information, and is deemed Official Use Only. It will not be placed in the Public Document Room, and it will not be publicly available in the NRC Agencywide Document Access and Management System (ADAMS).

Sincerely,

/RA/

Gary S. Janosko, Chief  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket: 70-143  
License: SNM-124  
Amendment 64

Enclosures:

1. Materials License SNM-124
2. Safety Evaluation Report

August 24, 2005

Concerning other changes that you requested, NRC staff continues to review your requests related to: (1) deletion of Section 1.7.21, and License Condition S-40 concerning Safety Related Equipment, and Configuration Controlled Equipment, and (2) relaxing the review frequency of operating procedures by the Safety Review Committee.

This letter closes Technical Assistance Control (TAC) number L31862. The NRC's review of the two remaining issues has been assigned TAC No. L31904. Please reference this number in any future correspondence associated with this request.

If you have any questions regarding this matter, please contact Breeda Reilly of my staff at (301) 415-8103 or via e-mail to [bmr@nrc.gov](mailto:bmr@nrc.gov).

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Sincerely,

/RA/

Gary S. Janosko, Chief  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket: 70-143  
License: SNM-124  
Amendment 64

Enclosures:

1. Materials License SNM-124
2. Safety Evaluation Report

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DOCKET: 70-143

LICENSEE: Nuclear Fuel Services, Inc.  
Erwin, Tennessee

SUBJECT: SAFETY EVALUATION REPORT FOR NUCLEAR FUEL SERVICE, INC. -  
AMENDMENT 63 - REQUEST FOR CHANGES TO CERTAIN  
ADMINISTRATIVE PROGRAMS - SPECIAL NUCLEAR MATERIAL LICENSE  
SNM-124 (TAC L31862)

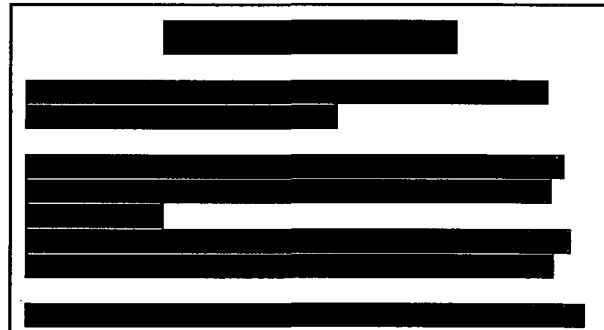
### BACKGROUND

By letter dated December 3, 2004, Nuclear Fuel Services, Inc. (NFS), submitted a request to amend certain administrative programs. Many of these programs have been in effect since the last renewal in 1999. 10 CFR 70, Subpart H, was promulgated in September 2000, subsequent to the last renewal. NFS is requesting amendment of certain Material License Safety Conditions or elements in the License Application to improve consistency with 10 CFR 70, Subpart H, and other program requirements.

The Nuclear Regulatory Commission (NRC) staff has reviewed the letter requesting the program changes. On April 23, 2005, the NRC and NFS held a teleconference call, and discussed the specific proposed program changes. Subsequently, the NRC issued a request for additional information (RAI) on May 23, 2005, and NFS provided a response to the RAI on June 22, 2005.

Two items that NFS requested in its December 3, 2004, letter are no longer part of the amendment request:

- NFS requested that the frequency of conducting configuration management assessments as required in Chapter 2, Section 2.12.1.5 be relaxed to at least every five years. In the June 22, 2005, response to the RAI, NFS withdrew this request.



[REDACTED]

Enclosure 2

- [REDACTED]
- NFS requested a change in the date for submitting information under License Condition S-27. This change was expedited, and approved separately by NRC as Amendment No. 61, dated June 17, 2005.

Two items that NFS requested in its December 3, 2004, letter are still under review by the NRC staff. Thus, these items are not discussed in this SER:

- NFS requested the deletion of Section 1.7.21, and License Condition S-40 concerning Safety Related Equipment (SRE) and Configuration Controlled Equipment (CCE).
- NFS requested that the review frequency of operating procedures by the Safety Review Committee (as required by Chapter 2, Section 2.4) be relaxed to at least every five years.

The NRC staff has reviewed the remaining requested changes. The following discussion contains a description and evaluation of these four requested changes:

- Definition of Low-Enriched Uranium (LEU)
- Investigations and Reporting
- Special Programs
- Fire Brigade and LC S-21

## DISCUSSION

The safety review of NFS's amendment request included a review of the December 3, 2004 letter requesting the program changes, the current license conditions, the current license application, and input from the NRC Senior Resident Inspector (email dated December 17, 2004).

### Definition of Low-Enriched Uranium (LEU)

NFS requests that the definitions of LEU, and high enriched uranium (HEU) in Chapter 1, Section 1.7.2 and Chapter 4.2.1.6 be amended to be consistent with the definitions in 10 CFR 74.4.

Specifically, LEU is defined in Section 1.7.2 as "... any compound of uranium in which the enrichment in the isotope uranium-235 is less than or equal to 10 percent by weight." NFS requests that this definition be changed to "... any compound of uranium in which the enrichment in the isotope uranium-235 is less than 20 percent by weight." The definition of LEU also appears in Chapter 4.2.1.6 as "... no more than 10 weight percent <sup>235</sup>U content." NFS requests that the definition be amended to define LEU as "... less than 20 weight percent <sup>235</sup>U content." These changes are consistent with 10 CFR 74.4 which defines LEU as "... uranium enriched below 20 percent in the isotope uranium-235." In addition, NFS indicated that the revisions would not affect the nuclear criticality safety limits based on enrichment controls.

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Similarly, the definition of HEU and highly enriched uranium that appears in Chapter 1, Section 1.7.2 should be changed from “. . . any compound of uranium in which the enrichment in isotope uranium-235 is greater than 10 percent by weight” to “. . . equal to or greater than 20 weight percent.” Also, the statement in Chapter 4.2.1.6 “Materials containing greater than 10 weight percent <sup>235</sup>U are considered high-enriched” should be changed to “Materials containing greater than or equal to 20 weight percent <sup>235</sup>U are considered high-enriched.” These changes in the definition of HEU are consistent with 10 CFR 74.4 which defines HEU as “. . . uranium enriched to 20 percent or greater in the isotope uranium-235.”

Thus, the NRC accepts the proposed changes in the definition of LEU and HEU because these changes maintain consistency in the License Application with 10 CFR 74.4. The NRC agrees with NFS and approves their request.

#### Investigations and Reporting

NFS requests that Chapter 2, Section 2.9.3, and Table 2.1 be deleted. Section 2.9.3 “Reporting of Unusual Occurrences” requires that nuclear criticality safety related events be reported in accordance with the criteria in NRC Bulletin 91-01. Table 2.1 provides classification criteria for reporting unusual events to the Commission. Also, NFS requests that the reference to Table 2.1 be deleted from Section 2.9.1.

The reporting requirements under 10 CFR 70.74 and Appendix A to Part 70 contain new classification of event and reporting requirements that remove the need for NFS’ Table 2.1 and for Bulletin 91-01 and its supplement. Thus, Section 2.9.3 and Table 2.1 are no longer needed due to the reporting requirements under 10 CFR 70.74 and Appendix A to Part 70. In addition, the reference to Table 2.1 that appears in Section 2.9.1 is no longer needed. Based on this review, the NRC agrees with NFS and approves this request.

#### Special Programs

NFS requests deletion of Chapter 2, Section 2.11 “Special Programs.” The current NFS license application contains Section 2.11.1 (Configuration Control), and Section 2.11.2 (Maintenance) as well as Section 2.12.1 (Configuration Management), and Section 2.12.2 (Maintenance of Items Relied on For Safety). Sections 2.12.1 and 2.12.2 were added to address the new 10 CFR 70, Subpart H requirements, but Sections 2.11.1 and 2.11.2 were not deleted. These two sets of sections are redundant to each other. Thus, deletion of Sections 2.11.1 and 2.11.2 would eliminate unnecessary duplication. Based on its review, the NRC agrees with NFS and approves this request.

### Fire Brigade and LC S-21

NFS requests that the requirement for a fire brigade be included in Chapter 6 of the license application. Currently, License Condition S-21 requires NFS to maintain an industrial fire brigade in accordance with NFPA 600, and to have a method for the rapid response of external

firefighting resources when sufficient fire brigade staff is unavailable. NSF is requesting that the language in the License Condition S-21 be included in Chapter 6, and that License Condition S-21 be deleted. The NRC approves this request.

In summary, the NRC staff has reviewed the proposed amendments, and determined that the proposed changes to: (1) the definition of low-enriched uranium in Chapter 1, Section 1.7.2, and Chapter 4.2.1.6; (2) investigations and reporting section in Chapter 2, and Table 2.1; (3) special programs section in Chapter 2, Section 2.11; and (4) the discussion of the fire brigade in Chapter 6 and LC S-21 should be approved.

### ENVIRONMENTAL PROTECTION

These changes are considered administrative and do not affect the scope or nature of the license activity. 10 CFR 51.229(c)(11) allows for a categorical exclusion of administrative, organizational, or procedural amendments to fuel cycle licenses provided that the following requirements have been satisfied:

- (i) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite;
- (ii) There is no significant increase in individual or cumulative occupational radiation exposure;
- (iii) There is no significant construction impact; and
- (iv) There is no significant increase in the potential for or consequences from radiological accidents.

NFS' requested changes are administrative in nature. There are no changes in the types of or increases in the amounts of effluents. Occupational exposure is expected to remain the same. These changes involve no additional construction activity. Therefore, there will be no construction impact. The potential for and consequences from radiological accidents are expected to be the same.

The staff has determined that the proposed changes do not adversely affect public health and safety or the environment, and are categorically excluded from the requirement for an environmental review. Therefore, in accordance with 10 CFR 51.22(c)(11), neither an environmental assessment nor an environmental impact statement is warranted for this action.



## CONCLUSION

The NRC staff has reviewed the proposed amendments and determined that they will have no adverse effect on the public health and safety, or the environment. Therefore, the proposed amendment requests should be approved.

The inspection staff has no objection to this proposed action.

## PRINCIPAL CONTRIBUTORS

Kevin Ramsey  
Harry Felsher  
Dan Rich  
Breeda Reilly