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April 1, 2008

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 80 - APPROVAL OF
CHANGES TO PHYSICAL PROTECTION PLAN FOR CATEGORY I, HIGH-
ENRICHED URANIUM (TAC L32648)

Dear Ms. Moore:

In accordance with your application dated August 23, 2007, and supplemented by letters dated December 4, 2007, and February 11, 2008, and pursuant to Part 70 to Title 10 of the Code of Federal Regulations (CFR), Materials License SNM-124 is hereby amended to approve the remaining changes to the Physical Protection Plan for Category I, high-enriched uranium. Some changes were approved previously in Amendment 78, issued on October 18, 2007. Accordingly, Safety Condition S-1 has been revised to delete the exception listed after the date August 23, 2007, and to add the dates December 4, 2007, and February 11, 2008. In addition, Safeguards Condition SG-6.1 has been revised to read as follows:

SG-6.1 The licensee shall follow the physical protection plan entitled "NFS Physical Protection Plan for Protection Of Category 1, High-Enriched Uranium (Strategic Special Nuclear Material), Revision 6," and as the plan may be further revised in accordance with the provisions of 10 CFR 70.32(e).

In addition, Conditions S-1 and SG-5.1 have been revised as follows:

- A. The date July 3, 2007, has been added to Condition S-1 for the change to the Physical Protection Plan, which was accepted in our letter dated February 25, 2008 (ADAMS Accession No. ML080390405);
- B. The date June 29, 2007, has been added to Condition S-1 for the change to the Fundamental Nuclear Material Control Plan, which was accepted in our letter dated February 14, 2008 (ADAMS Accession No. ML080180100); and

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C. Condition SG-5.1 has been revised to reflect the change in item B as follows:

SG-5.1 In order to achieve the performance objectives of 10 CFR 74.51(a) and maintain the system capabilities identified in 10 CFR 74.51(b), the licensee shall follow its "Fundamental Nuclear Material Control Plan" (Plan) with respect to all activities involving strategic special nuclear material, except as noted in Condition SG-5.5. This Plan, as currently revised and approved, consists of:

General Discussion -----	Rev. 8 (dated April 2005)
Section 1 -- Process Monitoring -----	Rev. 21 (dated June 2007)
Section 2 -- Item Monitoring -----	Rev. 8 (dated August 2006)
Section 3 -- Alarm Resolution -----	Rev. 8 (dated June 2007)
Section 4 -- QA & Accounting -----	Rev. 17 (dated June 2007)
Annex A -----	Rev. 6 (dated June 2007)
Annex B -----	Rev. 1 (dated August 1998)
Annex C -----	Rev. 1 (dated August 1998)
Annex D -----	Rev. 3 (dated June 2007)

Revisions to this Plan shall be made only in accordance with, and pursuant to, either 10 CFR 70.32(c) or 70.34.

All other conditions of this license shall remain the same.

Enclosed are copies of the revised Materials License SNM-124 (Enclosure 1), and the Safeguards Evaluation Report (Enclosures 2 and 3).

Upon issuance of this document, TAC L32648 will be closed.

If you have any questions regarding this matter, please contact Kevin Ramsey of my staff at (301) 415-7887, or via e-mail to kmr@nrc.gov.

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This letter transmits classified and sensitive, unclassified information. Upon removal of the sensitive information, it is decontrolled. In accordance with 10 CFR 2.390 of the U.S. Nuclear Regulatory Commission's (NRC) "Rules of Practice," a copy of this letter and enclosure 1 and 2 will be available electronically for public inspection in the NRC Public Document Room or from the Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electron Reading Room). Enclosure 3 will not be available to the public.

Sincerely,

/RA/

Michael D. Tschiltz, Deputy Director
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-143
License No.: SNM-124
Amendment 80

Enclosures:

1. Materials License SNM-124 (Unclassified)
2. Safeguards Evaluation Report (Unclassified)
3. Safeguards Evaluation Report (Classified)

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/RA/

Michael D. Tschiltz, Deputy Director
Fuel Facility Licensing Directorate
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Office of Nuclear Material Safety
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Closes TAC L32648

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Secure Docket S.Burris, RII J.Munday, RII R.Caldwell, NSIR

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O.Smith, RII M.Baker M.Adams O.Bukharin, NSIR
E.Johannemann, NSIR

ML080670143

OFC	FMB	FMB	FMB	FFLD
NAME	K.Ramsey	V.Cheney	P.Habighorst	M.Tschiltz
DATE	3/12/2008	3/19/2008	3/20/2008	4/1/2008

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DOCKET: 70-143

LICENSEE: Nuclear Fuel Services, Inc.
Erwin, Tennessee

SUBJECT: SAFEGUARDS EVALUATION REPORT FOR NUCLEAR FUEL SERVICES, INC., AMENDMENT 80 - APPROVAL OF CHANGES TO PHYSICAL PROTECTION PLAN FOR CATEGORY I, HIGH-ENRICHED URANIUM (TAC L32648)

BACKGROUND

By letter dated August 23, 2007, and supplemented by letters dated December 4, 2007, and February 11, 2008, Nuclear Fuel Services, Inc. (NFS), submitted Revision 6 of the Physical Protection Plan for Category I High-Enriched Uranium, under the provisions of 10 CFR 70.34.

DISCUSSION

A detailed discussion is provided in the classified evaluation report (Enclosure 3).

ENVIRONMENTAL REVIEW

The staff has determined that the changes requested are related to safeguards matters which are categorically excluded from the requirements to prepare a site-specific environmental assessment. Therefore, in accordance with 10 CFR 51.22(c)(12), neither an environmental assessment nor an environmental impact statement is warranted for this action.

CONCLUSION

The staff concludes that the revised Physical Protection Plan for Category I, High-Enriched Uranium contains appropriate and necessary commitments to meet applicable requirements stipulated in 10 CFR Part 73 and related Orders. Therefore, the existing Safeguards License Condition SG-6.1 should be revised as follows:

SG-6.1 The licensee shall follow the physical protection plan entitled "NFS Physical Protection Plan for Protection Of Category 1, High-Enriched Uranium (Strategic Special Nuclear Material), Revision 6," and as the plan may be further revised in accordance with the provisions of 10 CFR 70.32(e).

PRINCIPAL CONTRIBUTORS

Edward J. Johannemann, III
Oleg Bukharin

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