

[REDACTED]

November 5, 2004

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 55 - REQUEST FOR
MODIFICATION OF MATERIAL INVENTORY MEASUREMENTS

Dear Ms. Moore:

In accordance with your correspondence dated October 20, 2004 (NFS Reference No. 30G-04-1003), and pursuant to Part 70 to Title 10 of the Code of Federal Regulations, Materials License SNM-124 is hereby amended to modify a certain measurement requirement with regard to a quantity of uranium/aluminum material partially removed from the facility's dissolution process prior to the conduct of a semiannual inventory. Accordingly, new Safeguards License Condition SG-4.33, is being issued, and reads as follows:

SG-4.33 Notwithstanding the commitments in Section 4.5.3.7 of the Fundamental Nuclear Material Control Plan identified in Condition SG-5.1 to perform material measurements for physical inventories, the licensee may use a material inventory measurement modification with regard to a quantity of partially processed scrap material identified in the October 20, 2004, request letter. This condition shall automatically expire on completion of the final processing of the subject scrap material.

The deviation from Section 4.5.3.7 of your Fundamental Nuclear Material Control Plan (FNMC Plan) was requested and approved pursuant to 10 CFR 70.34. This request is needed with the anticipation of the upcoming November 2004, high-enriched uranium physical inventory.

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B. Marie Moore

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Enclosed are copies of the revised Materials License SNM-124 and the Safeguards Evaluation Report, which includes the Categorical Exclusion from preparing an Environmental Assessment or Environmental Impact Statement.

If you have any questions regarding this letter, please feel free to contact Julie Olivier of my staff at (301) 415-8098 or via e-mail to jao@nrc.gov.

This letter contains sensitive, unclassified information, and is therefore deemed Official Use Only and will not be placed in the Public Document Room nor the Publicly Available Records component of the NRC's ADAMS document system.

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 No.: 70-143
License No.: SNM-124
Amendment 55

Enclosures: 1. Materials License SMN-124
2. Safeguards Evaluation Report

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M. Lamastra W. Gloersen,RII D.Rich,SRI S.Cross,NSIR

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OFC	NSIR/DNS	FCFB	FCFB	FCFB	FCFB
NAME	V.Ordaz	J.Olivier	J.Muskiewicz	J.Lubinski	G.Janosko
DATE	11/5/04	11/4/04	11/4/04	11/5/04	11/5/04

OFFICIAL RECORD COPY

[REDACTED]

DOCKET: 70-143

LICENSEE: Nuclear Fuel Services, Inc. (NFS)
Erwin, Tennessee

SUBJECT: SAFEGUARDS EVALUATION REPORT - SUBMITTAL DATED OCTOBER 20,
2004, MODIFICATION OF MATERIAL INVENTORY MEASUREMENTS

BACKGROUND

By letter dated October 20, 2004 (NFS Reference No. 30G-04-1003), Nuclear Fuel Services (NFS) requested an amendment to modify certain measurement requirements with regard to a quantity of uranium/aluminum material partially removed from the facility's dissolution process prior to the conduct of a semiannual inventory. This request is needed with the anticipation of the upcoming November 2004, high-enriched uranium (HEU) physical inventory.

DISCUSSION

The provisions of the request from NFS stated that the facility experienced some operational problems with the dissolver/centrifuge equipment used in the Blended Low-Enriched Uranium (BLEU) preparation operation of uranium downblending activities. The licensee needs to suspend this operation for at least a month for equipment repairs, modifications, and retesting. Consequently, an approximate quantity of 29 kilograms of scrap uranium/aluminum alloy ingots cannot be readily dissolved to a solution and measured for the upcoming physical inventory. Because the entire scrap material cannot be processed in time for the November inventory, the licensee is proposing the application of using the received uranium/uranium-235 content and a ratio derived from the partially dissolved quantity and the original quantity input to the process to determine the measured values for inventory purposes. After the modifications to the equipment are complete, NFS will resume the routine processing and measurement of this material via the dissolved form.

In view of the licensee's modified measurement practice, the staff found that the request to modify the material inventory measurement is adequate and would not present an adverse safeguards implication.

ENVIRONMENTAL REVIEW

The staff has determined that the request for a material inventory measurement modification involves the safeguards plan and material accountability which are categorically excluded from the requirements to prepare a site specific environmental assessment. Therefore, in accordance with 10 CFR 51.22(c), neither an environmental assessment nor an environmental impact statement is warranted for this action.

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CONCLUSION

The staff concludes that approving the licensee's request for modifying its material measurement is justified, and will not adversely affect the licensee's safeguards program. Approval of this amendment is recommended, with the following temporary safeguards condition added to the license:

SG-4.33 Notwithstanding the commitments in Section 4.5.3.7 of the Fundamental Nuclear Material Control Plan identified in Condition SG-5.1 to perform material measurements for physical inventories, the licensee may use a material inventory measurement modification with regard to a quantity of partially processed scrap material identified in the October 20, 2004, request letter. This condition shall automatically expire on completion of the final processing of the subject scrap material.

PRINCIPAL CONTRIBUTOR

Thomas N. Pham, NSIR/DNS/FCSSP

