



Nuclear Fuel Services, Inc.
P.O. Box 337, MS 123
Erwin, TN 37650

(423) 743-9141

<http://www.nuclearfuelservices.com>

30G-10-0016
GOV-01-55-04
ACF-10-0016

January 22, 2010

Director, Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

- References:
- 1) Docket No. 70-143; SNM-124
 - 2) NFS Letter from B. Marie Moore to Director, Office of Nuclear Material Safety and Safeguards, 2S UF₆ Cylinder Heel Request, dated December 31, 2009
 - 3) NRC Letter, Non-Acceptance of Exemption from Requirement to Measure Heels in Uranium Hexafluoride Cylinders, dated January 15, 2010

Subject: Redacted Version of 2S UF₆ Cylinder Heel Request

In response to Reference 3, Nuclear Fuel Services, Inc. (NFS) hereby submits a redacted version of the 2S UF₆ Cylinder Heel Request which is suitable for release to the public.

If you or your staff have any questions, require additional information, or wish to discuss this further, please contact me, or Mr. Rik Droke, Licensing and Compliance Director, at (423) 743-1741. Please reference our unique document identification number (30G-10-0016) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

A handwritten signature in black ink, appearing to read "David C. Ward".

David C. Ward
Interim Director of Safety and Regulatory

/pdj
Attachment

Copy:

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II, Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303

Mr. Manuel Crespo
Project Inspector
U.S. Nuclear Regulatory Commission
Region II, Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303

Mr. Kevin Ramsey
Project Manager
Fuel Manufacturing Branch
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Galen Smith
Senior Resident Inspector
U.S. Nuclear Regulatory Commission

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Attachment
2S UF₆ Cylinder Heel Request
(Redacted Version)
2 pages to follow



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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

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GOV-01-55-04
ACF-09-0338
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December 31, 2009

Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Caller Box 2500
Rockville, MD 20352

REFERENCE: (1) Docket No. 70-143; SNM License 124

Subject 2S UF₆ Cylinder Heel Request

Dear Sir:

DOE-NNSA has contracted NFS to retain/ship no more than thirty 2S type UF₆ cylinder heels to the Y-12 National Security Complex for future forensic analysis. These cylinders have been opened and processed by NFS leaving a heel of material in each cylinder. [REDACTED]

[REDACTED] To support this effort, NFS requests an exception to allow the assignment of a uranium element and isotope content for each cylinder based on net weight of the heel, a concentration factor and an enrichment factor. This assigned value will be used for receipt, inventory, and shipment purposes. The uranium concentration factors and enrichment factors used will be based on the concentration and enrichment in the cylinders as received prior to NFS' processing. These cylinder heels may be held at NFS with these assigned values for one year or longer depending on when Y-12 can receive the cylinders. Provided Y-12 can measure the contents of the cylinders, NFS will adjust the receipt and shipment values of these cylinders based on Y-12's measured values. If Y-12 is unable to measure these cylinders, no adjustment will be made. Measurement uncertainty associated with these cylinders for SEID, receipts, or shipments is not required because the values are based on assigned factors.



This is a one-time exception to remain in effect until all the cylinders are shipped. This exception will not decrease the effectiveness of the material control and accounting program or the measurement control program, implemented pursuant to 10 CFR Part 74 Subpart E.



Sincerely,

NUCLEAR FUEL SERVICES, INC.

A handwritten signature in cursive script that reads "B. Marie Moore".

B. Marie Moore
Director of Safety and Regulatory

/dkw

