NRC FORM 7 (6-2006) 10 CFR 110 — U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT/IMPORT LICENSE, AMENDMENT, OR RENEWAL

(See Instructions on Page 5)

APPROVED BY OMB: NO. 3150-0027 — EXPIRES: 06/30/2009

PART A. FOR NRC USE ONLY	☑ PUBLIC OR ☐ NON-PUBLIC	DATE RECEIVED	complete application received 3-18-08
LICENSE NUMBER: XSNM 3485/01	DOCKET NUMBER: 11005675	ADAMS ACCESSION NUMBER	

PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

1. NAME AND ADDRESS OF APPLICANT/LICENSEE	1a. NAME OF APPLICANT'S CONTACT	1b. APPLICAN'TS REFERENCE NUMBER
U.S. Department of Energy New Brunswick Laboratory 9800 South Cass Avenue Building 350 Argonne, IL 60439	Heidi Williams	08-016
	1c. PHONE NUMBER: (630) 252-2767	1d. FAX NUMBER: (630) 252-4146
	1e. E-MAIL ADDRESS: usdoe.nbl@ch.doe.gov	

2. TYPE OF NRC LICENSE REQUESTED *(Check One)*

☐ EXPORT (Parts B, C, E) ☐ IMPORT (Parts B, D, E) ☐ COMBINED EXPORT/IMPORT (Parts B, C, D, E) ☑ AMENDMENT/RENEWAL Existing License Number: XSNM3485

3. CONTRACT NUMBER(S)	4. FIRST SHIPMENT DATE	5. LAST SHIPMENT DATE	6. PROPOSED EXPIRATION DATE
08-016	07/01/2008	12/31/2013	12/31/2013

PART C. TO BE COMPLETED FOR EXPORT ONLY OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT	8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S)	9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S)
		Japan Nuclear Fuel Limited 4-108, Aza Okitsuke, Oaza Obuchi, Rokkasho-mura, Kamikita-gun, Aomori-ken, 039-3212 JAPAN
7a. LIST FUNCTIONS PERFORMED/SERVICE PROVIDED	8a. INTERMEDIATE USE(S)	9a. ULTIMATE END USE(S): Reference Material

10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS	10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)	10b. MAX ENRICHMENT OR WGT %	10c. MAX ISOTOPE WGT (KG)
High Enriched Uranium as Solid, Metal	0.240 kg	97% enriched	0.233 kg

Rec'd 2-26-08 RB

11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

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U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT/IMPORT LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER	DOCKET NUMBER	ADAMS ACCESSION NUMBER	☑ PUBLIC OR ☐ NON-PUBLIC
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PART D. TO BE COMPLETED FOR IMPORT ONLY, OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)	14. NAME(S) / ADDRESS(ES) OF ULTIMATE CONSIGNEE(S)

12a. NRC EXPORT LICENSE NUMBER(S) *(if applicable)*	13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)
	13b. INTERMEDIATE USE(S)	14b. INTERMEDIATE USE(S)

15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES	15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)	15b. MAX ENRICHMENT OR WGT %	15c. MAX ISOTOPE WGT (KG)

16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS

17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS?	☑ YES ☐ NO	17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED?	☐ YES ☑ NO

18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL	18b. SIGNATURE – AUTHORIZED OFFICIAL	18c. DATE
Jon Neuhoff, Laboratory Director New Brunswick Laboratory	Jon Neuhoff	02/21/08

Rec'd 2-26-08 RB

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ADDITIONAL INFORMATION *(Reference applicable block numbers from page 1 and/or page 2 for each entry)*

9a) The consignee, Japan Nuclear Fuel Limited, will use Uranium reference materials to prepare large size dried (LSD) spikes and other reference samples. The LSD spikes will be used at the Rokkasho Re-processing Plant and JNFL MOX Fuel Fabrication Plant in Rokkasho for the Isotope Dilution Mass Spectrometry (IDMS) method, which is adopted as the facility's material accountancy analysis. These materials are used for calibrating the measurement techniques used at the plants.

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NEW BRUNSWICK LABORATORY

February 22, 2008

Scott Moore, Deputy Director
Office of International Programs
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: LICENSE AMENDMENT TO NRC LICENSE XSNM3485

Dear Mr. Moore:

Enclosed is a completed NRC Form 7 for exporting materials to Japan Nuclear Fuel Ltd (JNFL). This is an amendment to an existing license (XSNM3485). JNFL uses enriched uranium metal reference materials from New Brunswick Laboratory (NBL) to produce large size dried spikes (LSDs) for use at two facilities in Rokkasho, Japan. The first facility is the Rokkasho Reprocessing Plant, and the second is the J-MOX Fuel Fabrication Plant. The Reprocessing Plant is currently active and is reprocessing spent nuclear fuel under full International Atomic Energy Agency (IAEA) safeguards. The J-MOX (mixed oxide fuel fabrication facility, co-located next to the reprocessing plant) is under construction and will be under full IAEA safeguards when operational, expected in 2010.

The LSDs that are produced using NBL's HEU metal are used in establishing accountancy values for uranium and plutonium in input and output streams. The IAEA Safeguards Analytical Laboratory produces similar materials for independent verification of the Japanese declared values, and under an existing Department of Energy/Japan Atomic Energy Agency (JAEA) agreement, the New Brunswick Laboratory is assisting the Japanese in quality control and assurance associated with the reference material use and production. Because the reprocessing plant is operating at near full capacity, JNFL has a continuing need for approximately 20-30 grams of HEU metal per year. Therefore, NBL is seeking a 5 year license amendment.

Because of the continuing operation of the reprocessing facility, and the importance of these reference materials both to JNFL and the international safeguards community (DOE, IAEA), we respectfully request that this license amendment be processed as quickly as possible.

If you have any questions concerning this, please feel free to contact me at (630) 252-2446.

Best regards,

Jon W. Neuhoff

Jon W. Neuhoff,
Laboratory Director

Rec'd 2-26-08 PB

cc: Usha Narayanan, NBL
Peter Mason, NBL
Heidi Williams, NBL

Robin Barnes

From: Williams, Heidi [Heidi.Williams@ch.doe.gov]
Sent: Monday, March 03, 2008 4:31 PM
To: Carlotta Coates
Cc: Robin Barnes
Subject: License XSNM3485 Amendment Clarifications

XSNM3485/01
1100575

Dear Ms. Coates,

To clarify a few points we discussed earlier today regarding the proposed amendments to license XSNM3485, below is a break-down of the information contained in the original license versus the information contained in the proposed license amendment.

Original: June 30, 2008 expiration date
Amendment: December 31, 2013 expiration date (extended for 5 years)

Original: Freight forwarder indicated.
Amendment: No freight forwarder indicated.

Original: Natural Uranium as Solid, Metal, 200 g and High Enriched Uranium as Solid, Metal, 38.4 g, 93% enriched, 35.7 g U-235
Amendment: No Natural Uranium, only High Enriched Uranium as Solid, Metal, 240 g, 97% enriched, 233 g U-235
Currently, JNFL has estimated a need for approximately 20-30 g HEU metal per year. However, their material needs may increase once the MOX Fuel Fabrication Plant is complete. Also, the demand for material may increase somewhat if production efficiencies are implemented, requiring the consumption of more HEU metal reference materials. Therefore, for this amendment we are conservatively estimating a total of 240 grams of HEU metal over five years (or about 47 grams per year) to address possible future demand increases. Additionally, we are requesting up to 97% enrichment because NBL will be producing a replacement HEU metal standard in FY2008/2009 and we do not have an exact enrichment figure for the new metal from our supplier. NBL estimates the replacement standard will be approximately 94% U-235, but chose a conservative figure of up to 97% enriched.

Original: The consignee, Japan Nuclear Fuel Limited, will use the material at the Rokkasho Re-processing Plant.
Amendment: The consignee, Japan Nuclear Fuel Limited, will use the material at the Rokkasho Re-processing Plant and the MOX Fuel Fabrication Plant, which is co-located next to the Re-processing Plant, currently under construction, and expected in 2010.

I hope this break-down makes the proposed changes more clear. If you have any questions, please do not hesitate to contact me. We are working on the $16,800 payment and should have it processed by the end of this week. I will keep you informed.

Thanks and best regards,

Heidi Williams
U.S. Department of Energy
New Brunswick Laboratory
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Fax: 630-252-4146
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