



71-9294

Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

March 4, 2002

Mr. E. William Brach, Director
Spent Fuel Project Office, M/S O-13D13
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Brach:

Subject: Request for Revision to the Application for the New Powder Container (NPC)

Reference: Docket 71-9294, USA/9294/AF-85

The Global Nuclear Fuel - Americas, L.L.C. (GNF) facility in Wilmington, North Carolina, hereby requests the following changes to the contents of the Safety Analysis Report for the NPC packaging.

During a manufacturability review of the NPC, a single difference between the licensing drawings and fabrication drawings was identified. Shipments were immediately stopped and a comprehensive review completed over the weekend. As a result of that review, the changes identified in this letter are required to bring the licensing drawings into strict conformance with the fabrication of the certification test packages and the production packages. None of the changes adversely affect the safety of the package.

The requirements of 10 CFR 71.95 are being addressed in a separate report as specified by the regulation.

GNF respectfully requests an expedited review and approval of these changes. We currently have a shipment scheduled to leave very early on March 16, and we must obtain NRC and DOT approval by March 15, 2002 to support this critical shipment to Japan. Due to very limited transportation options, missing this shipment opportunity will cause our plant in Japan to miss critical shipments to one of their customers.

Location of the Changes in this Application

Description of Change

- | | |
|--|--|
| 1) Page 1-8 of Chapter 1.0, Appendix 1.3, 1.3.1 | Changed to show the correct revision for each drawing. |
| 2) Drawing 0019D0001, Rev. 5, Location D-3, Item 5 | Changed to 6 x 3 x 7 GA (3/16 wall nominal) ASTM A554, Type 304. This change makes the licensing drawing consistent with the fabrication of the certification test packages, the fabrication drawings and the packages fabricated to date. |
| 3) Drawing 0019D0001, Rev. 5, Location C-4, Item 1 | Changed quantity from 4 to 2. This change makes the licensing drawing consistent with the fabrication of the certification test packages, the fabrication drawings and the packages fabricated to date. |

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- 4) Drawing 0019D0001, Rev.5, Location B-7, Item 50
Changed to more closely represent the nominal dimensions of 3.7 x 6.3 inches and to allow the item to be fabricated from 18-8 stainless steel. The forklift pocket covers were not installed on the certification test packages. Their function is to prohibit the use of the forklift pockets for tie down or other forms of restraint during transport. Any metal cover of at least 3 x 6 inches blinds the pocket, but the slightly larger dimensions work better operationally. The fabrication drawings and packages manufactured to date use the 3.7 x 6.3 inch covers.
- 5) Drawing 0019D0002, Rev. 5, Location B-3, Item 50
Same as #4.
- 6) Drawing 0019D0004, Rev. 5, Location B-10, Detailed Section E-E
Changed quantity callout from 4 to 5. This change makes the licensing drawing consistent with the certification test packages, fabrication drawings and packages fabricated.
- 7) Drawing 0019D0004, Rev. 5, Location G-3, Item 4
Changed the welding callout to provide an option for use of a stitch weld or a continuous weld. The certification test packages were constructed using the stitch weld to hold the caps on the lower corners of the package. These caps are there to protect the corners and the stitch weld is intended to hold the caps in place, but is not relied on for structural integrity. A continuous weld is stronger than the stitch weld and therefore meets the functionality of holding the caps on the corners. Some welders find it easier to perform the continuous weld than to assure a stitch weld meets the minimum requirements. The option of the continuous versus the stitch therefore, does not adversely affect the safety of the package.
- 8) Drawing 0019D0004, Rev. 5, Location G-4, 5 and 6
Changed welding detail to show that first 8 inches of each end of the weld is a solid weld followed by stitch welds in between. This change makes the licensing drawing consistent with the certification test packages, fabrication drawings and packages fabricated.
- 9) Drawing 0019D0004, Rev. 5, Location C-6, Item 1
Same as #3.

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10) Drawing 0019D0004, Rev. 5, Location F-3,
(Weld Symbol)

Deleted weld symbol. This makes the licensing drawing consistent with the certification test packages, fabrication drawings and fabricated packages. This extraneous weld callout appears to be a carryover from earlier consideration of fabricating the forklift pocket tubes versus using extruded tubing as in the final design.

11) Drawing 0019D0007, Rev. 5, Location C-7,
Detailed Section L-L

Deleted Note 25. This makes the licensing drawing consistent with the certification test packages, fabrication drawings and fabricated packages. The note was placed on the drawing in error since it does not apply to the situation detailed.

Attachment 1 contains drawings 0019D0001, Rev. 5, 0019D0002, Rev. 5, 0019D0004, Rev. 5 and 0019D0007, Rev. 5, which contain the above drawing changes.

Attachment 2 contains the following page change:

Page 1-8 of Chapter 1.0 is revised to show the correct revision for each drawing. This page is identified as Revision 5, dated 3/2002. Since the pages in this application are back-to-back, page 1-8 is provided with page 1-7 on the reverse side. There is no change to page 1-7.

Enclosed is an original and four (4) copies of this application.

Please contact me on (910) 675-5656 if you have any questions or would like to discuss this matter further.

Sincerely,

Global Nuclear Fuel – Americas, LLC



Charles M. Vaughan, Manager
Facility Licensing

/zb
Enclosure

cc: CMV-02-011

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Attachment 1
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Attachment 1

- Drawing 0019D0001, Revision 5
- Drawing 0019D0002, Revision 5
- Drawing 0019D0004, Revision 5
- Drawing 0019D0007, Revision 5

FIGURE WITHHELD UNDER 10 CFR 2.390

5	RMCN00333			RP HIGGINS	3/4/02
2	FIRST ISSUE			H. KNIGHT	1/28/01
REV	DESCRIPTION	BY	DCR#	APPROVAL	DATE

SIGNATURES					
DATE	DAY	MO	YR	SIGNATURE	
	21	1	00	RI VAN LE	

SCALE 1/4		UNLESS OTHERWISE SPECIFIED	
TOLERANCES ON :		✓	
2 PLACE DECIMALS ±	FRACTIONS ±		
3 PLACE DECIMALS ±	ANGLES ±		

GNF		Global Nuclear Fuel	
GNF NEW POWDER CONTAINER (NPC) PACKAGING			
FORM NO.	REV. NO.	REV. DATE	REV. DATE
	0019D0002		5
FILE NO.	REV. NO.	REV. DATE	REV. DATE
0018000.000	2	8	

FIGURE WITHHELD UNDER 10 CFR 2.390

5	RMCN00333			RP HIGGINS	3/4/02
2	FIRST ISSUE			H. KNIGHT	1/28/01
REV	DESCRIPTION	BY	DCR#	APPROVAL	DATE
REVISIONS					
SIGNATURES		DAY	MO	YR	
DESIGN	RI VAN LE	20	1	00	 Global Nuclear Fuel GNF NEW POWDER CONTAINER (NPC) PACKAGING
CHECKED					
DATE					
SCALE	1/4				
UNLESS OTHERWISE SPECIFIED TOLERANCES ON : 2 PLACE DECIMALS ± FRACTIONS ± 3 PLACE DECIMALS ± ANGLES ±					
FNF DATE DATE DES. NO.		0019D0004 0019D0004		5 8	

FIGURE WITHHELD UNDER 10 CFR 2.390

REV	5	DATE	1/29/01	BY	H. KNIGHT	DCR#	APPROVAL
REV	2	DESCRIPTION					
REV	4	CNO9B35					
REV	5	RMCN00333					
REVISIONS							
SIGNATURES	DAY	MO	YR				
BY	1	20	00				
 Global Nuclear Fuel							
GNF NEW POWDER CONTAINER (NPC) PACKAGING							
SCALE <u>1/4</u>				UNLESS OTHERWISE SPECIFIED			
TOLERANCES ON :				FRACTIONS $\frac{1}{2}$			
2 PLACE DECIMALS \pm				ANGLES \pm			
3 PLACE DECIMALS \pm				ANGLES \pm			
PWT		DATE		PWT		DATE	
0019D00007		5		7		8	

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Attachment 2

- Page 1-7 and 1-8 of Chapter 1.0 (no change on page 1-7)

1.2.3 Contents of Packaging

The NPC packaging is designed to transport a maximum of 1,190 pounds (540 kg $\text{UO}_2/476.1\text{kgU}$) of uranium powder in oxide form (e.g., UO_2 , U_3O_8 , or $\text{UO}_x, x>2$), including powder receptacles and packing material in the ICCA, enriched with a maximum fissile content of 5 weight percent (w/o) of $\text{U}235$. The radionuclide content is uranium from natural sources which is commercially enriched.

The payload may be distributed in any ratio within the nine Inner Containment Canister Assemblies (ICCA), provided that the content of any one ICCA never exceeds 132.2 pounds (60 kg). Within an ICCA, the powder is enclosed in plastic or metal powder receptacles (e.g. bags, bottles, cans).