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April 7, 2005  
BFS/NRC 05-005  
Docket No. 72-1026  
File No. CMPC.0006.2

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

**Subject: Transmittal of the FuelSolutions™ Storage System Final Safety Analysis Report (FSAR) Biennial Update**

**References:** 1) FuelSolutions™ Storage System Final Safety Analysis Report, WSNF-220, Revision 2.  
2) FuelSolutions™ W21 Canister Final Safety Analysis Report, WSNF-221, Revision 3.  
3) FuelSolutions™ W74 Canister Final Safety Analysis Report, WSNF-223, Revision 4.

Dear Sir or Madam:

In accordance with the requirements of 10 CFR 72.248, BNFL Fuel Solutions (BFS) has updated the FuelSolutions™ Storage System Final Safety Analysis Report (FSAR) (References 1, 2, and 3) to incorporate all changes to the FuelSolutions™ Storage System implemented within the previous 24-month period. These changes are identified in Attachment 1.

The changes included in the FSAR update were implemented by BFS under the provisions of 10 CFR 72.48 and in accordance with the BFS Quality Assurance Program. In accordance with the requirements of 10 CFR 72.248(c)(4)(ii), the changes made under the provisions of 10 CFR 72.48, but not previously submitted to NRC, are identified in Attachment 2.

Enclosed are two (2) copies of a CD-ROM containing electronic files of the updated revisions of the FuelSolutions™ Storage System FSARs. In accordance with the requirements of 10 CFR 72.248(c)(1), the updated revisions of the FuelSolutions™ Storage System FSARs are being filed electronically on a full-replacement basis.

In addition, since one of the drawings included in the FSAR underwent multiple revisions between successive FSAR revisions, the current FSAR drawing revision markings do not highlight all the changes since the last FSAR revision. The intermediate FSAR drawing revision (with changes indicated using revision clouds) is included as Attachment 3 to facilitate identification of all FSAR drawing changes since the previous FSAR revision.

NMSOI

Should you or any member of your staff have questions, please contact the undersigned at:

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E-Mail: [ssisley@bnflinc.com](mailto:ssisley@bnflinc.com)

Sincerely,



Steven E. Sisley  
Licensing/Regulatory Compliance Manager

Attachments:

- 1) List of Changes for FuelSolutions™ Storage System FSAR Biennial Update
- 2) Changes Made Under Provisions of 10 CFR 72.48
- 3) Intermediate FuelSolutions™ Storage System FSAR Drawing Revisions.

Enclosure:

CD-ROM, labeled "FuelSolutions Storage System FSAR Biennial Update, April 7, 2005 – Publicly Available" (2 copies), containing the following three (3) files:

001\_WSNF220\_R2.pdf, 16,002 KB, publicly available  
001\_WSNF221\_R3.pdf, 12,859 KB, publicly available  
001\_WSNF223\_R4.pdf, 12,386 KB, publicly available

cc) Mary Jane Ross-Lee, SFPO w/ Attachments and Enclosure

CERTIFICATION

Steven E. Sisley states that he is the Licensing/Regulatory Compliance Manager at BNFL Fuel Solutions and that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto. Mr. Sisley certifies that the information accurately presents changes made since the previous revision of the FuelSolutions™ System Final Safety Analysis Report.

A handwritten signature in black ink, appearing to read 'Sisley', is written over a horizontal line.

Steven E. Sisley  
Licensing/Regulatory Compliance Manager  
BNFL Fuel Solutions Corporation

**List of Changes for FuelSolutions™ Spent Fuel Management System  
FSAR Biennial Update**

SAR	Section	Page	Description
WSNF-220	1.2.1.2	1.2-9	Delete semicolon
	1.5.1.1	1.5-1	Add drawing revisions and column headings
	1.5.1.2	1.5-3	
	1.5.1.3	1.5-5	
	1.5.1.2 Dwg. WE-410	1.5-3	Revise Quality Categories; correct weld details
	1.5.1.2 Dwg. WE-420	1.5-3	Revise Quality Categories; add Item number for neutron shield coating; add PT examination at ends of neutron shield jacket; correct dimensional callouts; clarify maximum allowable temperature of neutron shield jacket coating system
	1.5.1.2 Dwg. WE-430	1.5-3	Revise Quality Categories; reduce diameter of top cover recess
	1.5.1.2 Dwg. WE-440	1.5-3	Revise Quality Categories; reduce diameter of bottom cover recess; delete redundant hole callout
	1.5.2.2	1.5-9	Revise product data sheet for transfer cask neutron shield paint
	Table 2.0-1	2-6	Editorial correct missing column headings
	4.3.2	4.3-3	Add clarification of maximum allowable temperature of the neutron shield jacket coating system
	4.6.1.5.1	4.6-6	Corrected section cross-reference
	8.1.10.5	8.1-15	Spell out "inch"
	8.2.1.2	8.2-3	Add unit of measure
	8.2.4.1	8.2-17	Add unit of measure and correct mathematical symbol
	8.2.5.2	8.2-20	Spell out "inch"
	12.3.1	12.3-1	Editorially correct section number
WSNF-221	1.1	1.1-2	Grammatical correction
	1.2.1.4.4	1.2-9	Grammatical correction
	1.5.1	1.5-1	Add drawing revisions and column headings
	2.1.2	2.1-3	Grammatical correction

**List of Changes for FuelSolutions™ Spent Fuel Management System  
FSAR Biennial Update**

SAR	Section	Page	Description
WSNF-221 (continued)	Table 2.2-1	2.2-3 through 2.2-7	Editorially correct mathematical symbol and number of table pages in title
	Table 2.5-1	2.5-2, 2.5-5, 2.5-7, 2.5-10, 2.5-11	Editorially correct “requirement” to “requirements”; grammatical corrections
	3.1.1.1	3.1-1	Grammatical correction
	Table 3.1-4	3.1-16 through 3.1-18	Editorially correct number of table pages in title
	3.2	3.2-1	Grammatical corrections
	3.3.1	3.3-2	Grammatical correction
	3.4.3	3.4-3	Grammatical correction; delete extraneous sentence fragment
	3.4.4	3.4-4	Grammatical correction
	3.5.1	3.5-2	Grammatical correction
	3.5.3.4.2	3.5-23	Grammatical correction
	Table 3.5-1	3.5-31	Editorially correct “temperature” to “temperatures”
	Table 3.5-3 notes	3.5-34	Grammatical correction
	Table 3.5-5	3.5-37	Grammatical correction
	3.6.4	3.6-6	Editorially correct “weld” to “welds”
	Table 3.6-2	3.6-10	Grammatical correction
	3.7.1	3.7-2	Grammatical correction
	3.7.3.2.2	3.7-7	Editorially clarify sentence to specify the support rod loading from the bottom spacer plate
	3.7.4.1	3.7-13	Editorially correct “load” to “loads”
	3.7.5.1	3.7-21	Editorially correct “load” to “loads”
	3.7.5.2.1	3.7-23 & 3.7-24	Grammatical corrections

**List of Changes for FuelSolutions™ Spent Fuel Management System  
FSAR Biennial Update**

SAR	Section	Page	Description
WSNF-221 (continued)	Table 3.7-4	3.7-39	Grammatical correction
	Table 3.7-11	3.7-45	Grammatical correction
	Table 3.7-12	3.7-46	Grammatical correction
	Table 3.7-13	3.7-47	Grammatical correction
	Table 3.7-14	3.7-48	Grammatical correction
	Table 3.7-15	3.7-49	Grammatical correction
	3.9.3.1	3.9-4	Grammatical corrections
	3.9.3.2	3.9-6	Grammatical correction
	3.9.3.3.4	3.9-12, 3.9-13	Grammatical corrections
	Table 4.6-3	4.6-13	Editorially correct table note number
	6.3.1.1	6.3-5	Editorially clarify cross-section views of W21 hypothetical accident conditions model
	6.4.2.1.2.1	6.4-7	Grammatical correction
	11.1.2.2	11.1-3	Grammatical correction
WSNF-223	1.5.1	1.5-1	Add drawing revisions and column headings
	Table 3.1-2	3.1-12, 3.1-13	Editorially correct number of table pages in title
	3.4.4	3.4-8	Typographical correction
	4.1.1.1	4.1-2	Add period
	4.3.2.1	4.3-3	Add hyphen
	4.4.1.8	4.4-12	Add hyphen
	6.6.1.1	6.6-2	Typographical correction
	6.4.2.1.1.1	6.4-3	Delete hyphen
	6.6.3.5	6.6-21	Editorially clarify description of the isotope distribution used to model plutonium metal
	Figures 6.6-4, 6.6-7, & 6.6-8	6.6-42, 6.6-45, 6.6-46	Editorially correct enrichment value and terminology for fuel pin compositions
	11.1.2.2	11.1-3	Add period

**Changes Made Under Provisions of 10 CFR 72.48**

<b>Affected SAR</b>	<b>Affected Section(s)</b>	<b>Change Description</b>
WSNF-220	1.5.1.2, Dwg. WE-410	Changes Quality Categories.
	1.5.1.2, Dwg. WE-420	Changes Quality Categories. Added Item number for neutron shield coating. Added PT examination at ends of neutron shield jacket.
	1.5.1.2, Dwg. WE-430	Changes Quality Categories. Reduced diameter of top cover recess.
	1.5.1.2, Dwg. WE-440	Changes Quality Categories. Reduced diameter of bottom cover recess.

**Intermediate FuelSolutions™ Storage System FSAR Drawing Revisions**


<b>Drawing No.</b>	<b>Title</b>	<b>Revision</b>
<b><i>WSNF-220, FuelSolutions™ Storage System FSAR Drawings</i></b>		
<b>WE-420</b>	<b>FuelSolutions™ W100 Transfer Cask Shell Assembly (3 sheets)</b>	<b>4</b>



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9/11

FIGURE WITHHELD UNDER 2.390

DESCRIPTION		SPECIFICATION		DATE			
LIST OF MATERIAL							
		 <b>BNFL</b> Fuel Solutions					
TITLE		FuelSolutions™ W100 TRANSFER CASK SHELL ASSEMBLY					
REV	D	REV	WE-420	4			
SCALE	MTS	FILE NO.	CMPC.1208.420	1 OF 3			
3	2	1					

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8	7	6	5	4	3	WE-420	2	4	1
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FIGURE WITHHELD UNDER 2.390

BNFL Fuel Solutions		DATE D	REP WE-420	REP 4
3	2	1	2 OF 3	

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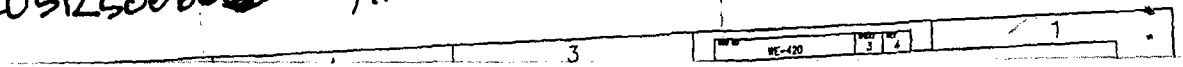


FIGURE WITHHELD UNDER 2.390

