



August 21, 2001  
LB:EHSLR:017:01

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Subject: ANF-250 Packaging; NRC Certificate of Compliance No. 9217

Gentlemen:

Framatome ANP Richland, Inc. (FRA-ANP) requests amendment to the current Certificate of Compliance for the ANF-250 fresh fuel shipping package. The amendment requested involves typographical corrections to sheet 2 of the license package drawing EMF-306,176 revision 5. The typographical errors occurred when the drawing was changed from hand to CAD drawn between revisions 4 and 5 and the depiction of the powder insert was transferred from another drawing (EMF-607,244 revision 3) to EMF-306,176 revision 5.

The existing drawing shows the lower end plate of the powder insert (zone G7) to be  $3/8 \pm 1/16$  inch thick and the scale of the powder insert rendition (zone H9) to be 1:4. In fact, the base plate thickness should be  $3/16 \pm 1/16$  inch and the scale, 1:2 as listed in the original hand drawing (revision 4). The requested changes do not decrease the safety of the container rather they return the base plate drawing dimensions to the original specification ( $3/16 \pm 1/16$  inch).

FRA-ANP has made no shipments employing the powder insert during the period that this drawing has been in error. We have, however, leased ANF-250's to other parties and have informed these parties of the errors.

FRA-ANP requests that Certificate of Compliance 9217 be revised by replacing both sheets of revision 5 of drawing EMF-306,176 with revision 6. Enclosed in support of this request are six copies of revision 10 of the "Consolidated Safety Analysis Report (SAR) for the Use of the ANF-250 Packaging for the Transport of Fissile Radioactive Materials" comprised of revision 6 of drawing EMF-306,176 (both sheets), the page (1-2) listing the current revisions of the license drawings, and a description of the drawing changes and their associated technical/safety justification.

If you have questions or require additional information, please call me at 509-375-8789 in Richland or 804-832-5268 in Lynchburg or Jim Edgar of my staff at 509-375-8663.

Sincerely,

R. S. Freeman, Manager  
Environmental, Health, Safety and Licensing

Enclosures

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*NMSSol Public*

Framatome ANP Richland, Inc.

EMF-2055  
Revision 10

Issue Date:

**Consolidated Safety Analysis Report (SAR) for the Use of the  
ANF-250 Packaging for the Transport of Fissile Radioactive  
Materials**

**Certificate of Compliance 9217  
Docket No. 71-9217**

August 2001

### Nature of Changes

<u>Item</u>	<u>Section or Page(s)</u>	<u>Description and Justification</u>
1.	1-6	Corrected sheet 2 of drawing EMF-306,176, of revision 5. Replace erroneous $3/8 \pm 1/16$ inch thickness of the lower end plate with $3/16 \pm 1/16$ inch (zone G7) and replace erroneous 1:4 scale (zone H9) with 1:2. The lower end plate thickness callout is now consistent with the originally licensed dimension and the scale is correct. There is no adverse impact to the safety of the container as a result of these changes.

mm (9.56 in) inside diameter and 1256 mm (49.44 in) length. The insert has a bolted and gasketed top flange closure and a steel-welded bottom plate. The insert has been shown by the accident condition tests to prevent the in-leakage of water should a breach of the inner container of the ANF-250 occur during an accident condition. Water in-leakage into the insert, however, has been assumed for criticality analysis purposes.

### 1.2.3 Operational Features

The ANF-250 is a simple drum design with no complex operational features.

### 1.3 **Regulatory Requirements**

This package is identified for fissile radioactive material contents. As such it will be identified as an AF packaging. The maximum gross weight of the package is 616 pounds. The packaging is identified as the ANF-250 and is built and used as described previously in subsection 1.2. The smallest overall dimension of this package is 574 mm (22.6 in.).

The contents of the packaging will be comprised of solid uranium oxide pellets in suitcases or solid uranium oxide powder in plastic jugs, both as described in subsection 1.2.

The packages are maintained and used according to SPC's NRC approved EMF-1 Quality Assurance Manual. Appropriate measures and procedures to be followed for testing, maintenance, operational use, and ensuring the package is not tampered with during use are all identified in Sections 7 and 8 of this SAR. This includes always using a tamper indicating seal on the ring bolt.


As a result of this package being designed, constructed and used for fissile radioactive materials, a criticality transport index (TI) has been determined for each of the packages intended contents. It is as follows:

- For solid uranium oxide powder enriched to a maximum 5.0 weight percentage of  $^{235}\text{U}$  in plastic jugs, a criticality TI of 1.8 is assigned.
- For solid uranium oxide pellets enriched to a maximum 5.0 weight percentage of  $^{235}\text{U}$  in suitcases, a criticality TI of 0.6 is assigned.
- For solid uranium oxide powder in plastic jugs or solid uranium oxide pellets in suitcases, enriched to a maximum of 1.0 weight percentage of  $^{235}\text{U}$ , a criticality TI of 0.4 is assigned.


### 1.4 **Appendix**

- -EMF-306,175 Revision 16 – Shipping Container Model ANF-250
- EMF-304,306 Revision 8 – Pellet Shipping Suit Case
- EMF-306,176 (2 sheets) Revision 6 (both sheets) – Shipping Container Inserts

**FIGURE WITHHELD UNDER 10 CFR 2.390**

FRAMATOME ANP RICHLAND			
SCALE:		1:4	
N	DATE	NAME	TITLE
1	07/15/87	PCC	SHIPPING CONTAINER INSERTS 
2	07/15/87	RGN	
ION	08/06/87	DRC	
TE	08/11/87	GJB	
TM			
DRAWING NO.			EMF-306,176 R-6
			SHEET 1
			SHEET 2

**FIGURE WITHHELD UNDER 10 CFR 2.390**

FRAMATOME ANP RICHLAND			
SCALE:		NOTED 	
DRAWN BY	DATE	NAME	TITLE
CHECKED BY	2/1/1999	DKG	SHIPPING CONTAINER INSERTS
APPROVED			
APPROVED			
DRAWING NO.			BY NO.
EMF-306,176 R-6			2
			SHEETS
			2