CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES
6581	35	71-6581	USA/6581/AF	1	OF	6

2. PREAMBLE

a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."

b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

a. ISSUED TO *(Name and Address)*

Framatome ANP, Inc.
2101 Horn Rapids Road
Richland, WA 99352-0130

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Framatome ANP, Incorporated Consolidated License Application dated January 20, 2003, as supplemented.

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

(1) Model No.: 51032-1

(2) Description

A steel shipping container for fuel bundles, consisting of a strongback and fuel bundle clamping assembly, shock mounted to a steel outer container. Steel separator blocks are bolted between fuel assemblies. The separator blocks are a minimum 6 inches wide by approximately 8 inches high and 9 inches long, with a minimum nominal 3/8-inch thick wall. The outer container is approximately 43 inches in diameter by 216 inches long. The maximum weight of the package, including contents, is 7,500 pounds.

(3) Drawings

The packaging is constructed and assembled in accordance with the following Siemens Power Corporation Drawing Nos.:

EMF-309,813, Rev. 2, Sheets 1 and 2
EMF-303,359, Rev. 7
EMF-303,360, Rev. 6
EMF-303,898, Rev. 5
EMF-300,607, Rev. 3
EMF-309,582, Rev. 0

5.(b) Contents

(1) Type and Form of material

(i) Unirradiated fuel rods consisting of uranium dioxide fuel pellets clad in zirconium alloy or stainless steel tubes. Fuel rods must be in one of the following configurations:

Type	15x15	17x17[1]	GEN1[2]	Rod Container[3]	T15x15 Square Array Assemblies[4]	T15 x15 Cruciform Assemblies
Maximum Enrichment (%U-235)	5.0	5.0	5.0	5.0	5.0	2.8
Rods Per Assembly	204	264	any number	any number	208	28
Nominal Rod Pitch (in.)	0.563	0.496	NA	NA	0.527	0.556
Maximum Pellet Density (%TD)	95	95	95	95	95	95
Maximum Clad OD (in.)	0.430	0.380	0.500	0.500	0.400	0.500
Minimum Clad OD (in.)	0.410	0.355	0.260	0.260	0.364	0.260
Minimum sum of clad thickness and pellet-clad gap[5] (in.)	0.023	0.023	0.023	0.023	0.016	0.023
Assembly Cross Section (in.)	8.445	8.432	8.25	NA	7.91	8.25
Active Fuel Length (in.)	196	196	196	196	196	116
Fuel Rod Arrangement (Figure Number in Application)	11.1	11.2	NA	NA	VII-1	VII-3

Table Notes

1 Fuel assemblies consisting of a maximum 264 fuel rods in a 17x17 square array with any number of edge rods missing.

2 Fuel assemblies consisting of any number of fuel rods in a square array with a maximum assembly cross section of 8.25 inches square.

3 Any number of fuel rods positioned in a rod container. The rod container consists of a schedule 40 steel pipe with a maximum nominal diameter of 5 inches.

4 Fuel assemblies consisting of a maximum of 208 fuel rods in a 15x15 square array, with any number of edge rods missing.

5 Minimum sum of the cladding wall thickness and the pellet-clad radial gap, ((Min Clad OD - Max Pellet OD)/2), in.

5.(b) Contents (Continued)

(ii) Unirradiated fuel assemblies, composed of uranium dioxide fuel pellets clad in zirconium alloy or stainless steel tubes. Uranium is enriched to a maximum of 5.05 wt% in the U-235 isotope. The fuel assemblies may contain inserted control rod assemblies. The fuel assemblies have the following specifications:

Type	L1	L2	L4
Array Size	15x15	15x15	17x17
Fueled Rods Per Assembly	208	208	264
Minimum No. of Non-Fueled Rods	17	17	25
Nominal Rod Pitch (in.)	0.568	0.568	0.496
Maximum Pellet Diameter (in.)	0.3707	0.3742	0.3232
Maximum Pellet Density (%TD)	97.5	97.5	97.5
Nominal Clad OD (in.)	0.430	0.430	0.374
Minimum sum of clad thickness and pellet-clad gap[1] (in.)	0.023	0.023	0.023
Assembly Cross Section (in.)	8.52	8.52	8.432
Active Fuel Length (in.)	196	196	196
Fuel Rod Arrangement (Figure Number in Application)	VIII-1	VIII-1	VIII-2

Table Notes:
[1] Minimum sum of the cladding wall thickness and the pellet-clad radial gap, ((Min Clad OD - Max Pellet OD)/2), in.

5.(b) Contents (Continued)

(iii) Unirradiated fuel rods consisting of uranium dioxide fuel pellets clad in zirconium alloy or stainless steel tubes. Fuel rods must be in one of the following configurations.

Type	15x15	17x17[1]	GEN1[2]
Maximum Enrichment (%U-235)	4.87	4.87	4.87
Rods Per Assembly	204	264	any number
Nominal Rod Pitch (in.)	0.563	0.496	NA
Maximum Pellet Density (%TD)	97.5	97.5	97.5
Maximum Clad OD (in.)	0.430	0.380	0.500
Minimum Clad OD (in.)	0.410	0.355	0.260
Minimum sum of clad thickness and pellet-clad gap[3] (in.)	0.023	0.023	0.023
Assembly Cross Section (in.)	8.445	8.432	8.25
Active Fuel Length (in.)	196	196	196
Fuel Rod Arrangement (Figure Number in Application)	11.1	11.2	NA

Table Notes

1 Fuel assemblies consisting of a maximum 264 fuel rods in a 17x17 square array with any number of edge rods missing.

2 Fuel assemblies consisting of any number of fuel rods in a square array with a maximum assembly cross section of 8.25 inches square.

3 Minimum sum of the cladding wall thickness and the pellet-clad radial gap, ((Min Clad OD - Max Pellet OD)/2), in.

(2) Maximum quantity of material per package

Maximum quantity of material within a package may not exceed a Type A quantity. Total weight of fuel assemblies, or fuel rods, and rod containers, not to exceed 3400 pounds, and

(i) For the contents described in 5(b)(1)(i), the total weight of fuel assemblies:

Two full length fuel assemblies. Two short fuel assemblies may be substituted for each full length fuel assembly provided the two short assemblies are shipped end-to-end and the total fuel length does not exceed the maximum fuel length for a full length assembly; or

Two rod containers.

(ii) For the contents described in 5(b)(1)(ii):

Two fuel assemblies.

(iii) For the contents described in 5(b)(1)(iii):

Two fuel assemblies.

(c) Criticality Safety Index 0.4

6. Each fuel assembly must be unsheathed or must be enclosed in an unsealed polyethylene sheath which will not extend beyond the ends of the fuel assemblies. The ends of the sheaths must not be folded or taped in any manner that would prevent the flow of liquids into or out of the sheathed fuel assemblies.

7. Hydrogenous shims are not permitted within the fuel assemblies.

8. Separator blocks, shock mounts, and fuel element clamp assemblies must be in accordance with Tables 2.2, 2.3, 2.4, 2.5, and VII-3 of the application.

9. Each separator block must be attached to the strongback by one of the following methods, as shown in Drawing No. EMF-309,813, Rev. 2, Sheet 2:

(a) Two, 5/8-11 UNC Grade 5 steel cap screws and nuts. A 5/8-11 UNC Grade 2 (or better) steel stud may be substituted for one of the cap screws.

(b) Two, 1-8 UNC Grade 8 steel cap screws and nuts. A 1-8 UNC Grade 8 steel stud may be substituted for one of the cap screws.

10. The fuel assembly cross section is defined as the rod pitch times the number of rods on the edge of the assembly.

11. Rods containing gadolinia or other neutron poison are authorized but not required.

12. In addition to the requirements of Subpart G of 10 CFR Part 71:

    (a) The package shall be prepared for shipment and operated in accordance with the procedures in Chapter 3.0 of the application.

    (b) Each packaging shall be maintained in accordance with the procedures in Section 3.4 of the application.

    (c) Each packaging shall meet the acceptance tests in Chapter 4.0 of the application.

    (d) Each fuel rod shall be welded closed and certified to be leak-tight prior to shipment.

13. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.17.

14. Expiration date: October 1, 2008. This certificate is not renewable.

REFERENCES

Framatome ANP, Incorporated consolidated application dated January 20, and its supplements, May 8, June 18, July 7, and November 26, 2003; March 22, and August, 2005.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Robert J. Lewis, Chief
Licensing Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Date: 27 Sept. 2005