NRC FORM 618 (8-2000) 10 CFR 71 CERTIFICATE OF COMPLI FOR RADIOACTIVE MATERIAL PA								
1. a. CERTIFICATE NUMB	ER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES	
9	215	7	71-9215	USA/9215/B(U)	1	OF	3	

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)

Neutron Products, Inc. 22301 Mt. Ephraim Road P.O. Box 68 Dickerson, MD 20842 b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Neutron Products, Inc., application dated September 14, 1992, as supplemented.

4. CONDITIONS

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

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5.

(a) Packaging

- (1) Model No.: NPI-20WC-6 MkII
- (2) Description

A steel encased, lead shielded cask contained within a wooden overpack with a steel outer shell. The cask is 24 inches in diameter with a 3/8-inch thick steel spherical shell and a cavity formed by an 8-1/4-inch ID by 3/16-inch thick steel tube. Positive closure of the shielded cask is accomplished by bolted end covers at each end of the cavity. The overpack is approximately 49 inches in diameter and 59 inches high, including the lid lifting eye and the base support structure. The maximum package gross weight is 6,000 pounds.

(3) Drawings

The Model No. NPI-20WC-6 MkII packaging is constructed in accordance with Neutron Products, Inc., Drawing Nos. 240116, Rev. G; and 240122, Sheet 1 of 2, Rev. H, Sheet 2 of 2, Rev. H.

- (b) Contents
 - (1) Type and form of material

Cobalt-60 as sealed sources which meet the requirements of special form radioactive material.

NRC FORM 618				U.S. NUCLEAR REG	ULATORY C	COMMISSION		
(8-2000) 10 CER 71 CERTIFICATE OF COMPLIANCE								
FOR RADIOACTIVE MATERIAL PACKAGES								
1. a. CERTIFICATE NUMBE	ER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGE		

1.	a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES
	9215	7	71-9215	USA/9215/B(U)	2	OF	PAGES

5.(b) Contents (Continued)

- (2) Maximum quantity of material per package
 - (i) For sources contained within drum assembly shown as Item 5 on Neutron Products, Inc., Drawing No. 240122, Sheet 1 of 2, Rev. H:

Maximum activity not to exceed 15,000 curies, maximum decay heat not to exceed 240 watts.

(ii) For sources contained within drum assembly shown as Item 4 on Neutron Products, Inc., Drawing No. 240122, Sheet 2 of 2, Rev. H:

Maximum activity not to exceed 9,500 curies, maximum decay heat not to exceed 150 watts.

(iii) For sources contained within drum assembly shown as Item 2 on Neutron Products, Inc., Drawing No. 240122, Sheet 2 of 2, Rev. H:

Maximum activity not to exceed 6,300 curies, maximum decay heat not to exceed 100 watts.

- 6. In addition to the requirements of Subpart G of 10 CFR Part 71:
 - (a) The package must be maintained in accordance with Teletherapy Shipping Packaging Maintenance Procedure R-2019-G, Revision 0, provided in the supplement dated May 1, 2003.
 - (b) The package shall be prepared for shipment and operated in accordance with Teletherapy Shipping/Transfer Cask Unloading and Loading Procedures R-2014-G, Revision 0, provided in the supplement dated May 1, 2003.
- 7. The contents must be secured in the drum assembly so as to restrict movement in any direction to less than 0.25 inch, by lead, steel, or tungsten full diameter plugs and spacers.
- 8. The gross weight of the package must not exceed 6,000 pounds, and the inner shield cask shall be snug-fitting within the wooden overpack.

NRC FORM 618 (8-2000) 10 CFR 71

CERTIFICATE OF COMPLIANCE

U.S. NUCLEAR REGULATORY COMMISSION

FOR RADIOACTIVE MATERIAL PACKAGES								
1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES		
9215	7	71-9215	USA/9215/B(U)	3	OF	3		

- 9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.12.
- 10. Expiration date: May 31, 2008.

REFERENCES

Neutron Products, Incorporated, application dated September 14, 1992.

Supplements dated: October 29, 1992; November 17, 1993; September 8, 1997; September 5, 2002; May 1 and October 7, 2003.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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/RA/ John D. Monninger, Chief Licensing Section Spent Fuel Project Office Office of Nuclear Material Safety and Safeguards

Date: November 18, 2003.