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7 May 2018

Document Control Desk
Director
Division of Spent Fuel Management
Office of Nuclear Material Safety and Safeguards
United States Nuclear Regulatory Commission
Washington, DC 20555-000

Subject: Consolidated Application for Renewal of CoC - USA/9215/B(U) Packages

Please find attached the consolidated application for renewal of the Certificate of Compliance USA/9215/B(U). We request that the Certificate be renewed for the maximum allowable period. A table summarizing the changes made to the Certificate since the last consolidated application has been attached.

The last consolidated application was Revision 4 of the Safety Analysis Report. In 2012, Section 5 was revised to make some corrections to the shielding calculations, with the substituted pages labeled as Revision 5. This submittal is Revision 6.

We request that the drawings included in this application be withheld from public disclosure due to the proprietary nature of the information contained therein. In accordance with the requirements of 10 CFR 2.390, this request is supported by the attached affidavit.

Furthermore, as discussed in RIS 2005-31, the drawings and the application itself contain, or may contain, security-related sensitive information and, on that basis, should also be withheld from public disclosure under 10 CFR 2.390.

While many editorial and formatting changes have been made to this Revision, very few substantive changes have been made.

- The package was initially used primarily to transport teletherapy sources. Although it is still used in that capacity, it is increasingly being used to also transport sources in different configurations. As a result, throughout the SAR, some references to "teletherapy sources" and "teletherapy machines" have been removed, and some references to other sources, such as "pencil sources" have been added;

- In Section 2, the weight of the shield plugs used was increased to provide for the more extensive use of tungsten alloy shield plugs. This change did not increase the maximum weight of the package used in the calculations because that maximum weight of 6,000 pounds is already significantly greater than the weight of the package as it is normally configured, which is approximately 5,200 pounds;
- In Section 5, some additional shielding calculations and examples were added.
- The referenced drawings were updated to remove Drawing A240012, which had previously been incorporated into Drawing 240122, and to reference Rev. J of Drawing 240116, which has been added to the current Certificate (Rev. 14).

In addition to renewing the Certificate, we request that the following additional changes be made to the Certificate:

- Item 5(a)(2), Description, be changed to increase the diameter from approximately 49 inches (which reflects the body of the Steel Shell of the overpack) to 55 inches, which would also include the flange which secures the lid to the body, and the tie downs.
- Item 7 be changed from "lead, steel, or tungsten full diameter plugs and spacers" to "lead, steel, and/or tungsten alloy full diameter plugs and spacers." The text of the SAR has used both descriptions, "tungsten" and "tungsten alloy" interchangeably, and that is in error. However, the calculations have always been conducted based on tungsten alloy, as can be seen in Table 5.3.1 which is now in SAR section 5.3.2 Material Properties. "Tungsten alloy" is called out in the Table, and the density is reported as 17 g/cc, instead of 19 g/cc which would be the case if pure tungsten had been used as the basis for the calculations.
- The Safety Evaluation Report which accompanied Rev. 10 of the CoC in May, 2010 includes a requirement that is not in the CoC. On page 2 of the SER, "...and provided that the applicant uses at least 2 inches of Lead or Tungsten, or 3 inches of steel as axial shielding material in the drum assembly." We have complied with this requirement since its issuance, but it is not actually in the CoC. There are two issues here. First, regarding the merits, we submit that the requirement is not necessary for long, very low activity sources and request that the NRC reconsider the requirement. Second, if the NRC determines that it is a necessary requirement, we request that it be added to the CoC.

Thank you for your consideration of these matters. The referenced Certificate is the company's only Type B package and is essential for our continuing participation in the delivery of radiation therapy sources for medical applications; the reloading and removal of sources in various

irradiators used in research, academia, industry and government facilities; and the OSRP and IAEA efforts to recover sources which are no longer in use.

We believe that there is no technical reason why this request for renewal should not be granted.

If you have any questions, or require additional information, please contact me at (301) 349-5001. Alternatively, I can be contacted by e-mail at neutronprod@rcn.com. Mail can be sent to Neutron Products, Inc. / PO Box 68 / Dickerson, MD 20842.

Sincerely,



Bill Ransohoff
Neutron Products, Inc.
President

This submission includes the following documents:

Filename	Size	Sensitivity
001 Renewal 9215 – Letter of Transmittal.pdf (this document)	993 kB	Public
002 Renewal 9215 – Affidavit.pdf	842 kB	Public
003 Renewal 9215 – Table of Contents.pdf	327 kB	Public
004 Renewal 9215 – Section 1.pdf	368 kB	Public
005 Renewal 9215 – Section 2.pdf	3976 kB	Public
006 Renewal 9215 – Section 3.pdf	1968 kB	Public
007 Renewal 9215 – Section 4.pdf	624 kB	Public
008 Renewal 9215 – Section 5.pdf	1341 kB	Public
009 Renewal 9215 – Section 6.pdf	39 kB	Public
010 Renewal 9215 – Section 7.pdf	1259 kB	Public
011 Renewal 9215 – Section 8.pdf	296 kB	Public
012 Renewal 9215 – Sandia Test Results.pdf	8573 kB	Public
013 Renewal 9215 – Drawing 240122H-1.pdf	1808 kB	Proprietary
014 Renewal 9215 – Drawing 240122H-2.pdf	937 kB	Proprietary
015 Renewal 9215 – Drawing 240116J.pdf	409 kB	Proprietary

All documents were submitted electronically, there are no BLOBs, no special instructions, the files do not deviate from approved formatting and do not contain links to other files or websites.

Table 1: Certificate of Compliance No. USA/9215/B(U)

<i>COC Amendment</i>	<i>Reason for Amendment</i>
10/29/1992	Consolidated application for renewal of CoC No. 9215. This supplemented our initial application for renewal dated September 14, 1992
11/17/1993	Request for approval to use alternative cask internals, i.e. drum assemblies that were approved for use under other CoC 9102 and CaC 5800 in the 9215 package.
9/8/1997	Request for the CoC USA/9215/B(U) to be renewed for the maximum period.
9/5/2002	Request for the CoC USA/9215/B(U) to be renewed for the maximum period.
5/1/2003	Request for renewal and amendment of CoC USA/9215/B(U). Supplement to application dated September 5, 2002
10/7/2003	Request to have drawing 240116 in CoC USA/9215/B(U) be corrected from Rev. F to Rev. G to correct the cavity depth of the WPJ from 27-1/4 to 29-1/4 inches.
2/16/2007	Request to amend the CoC USA/9215/B(U) by adding a note including rivet and SS screw sizes, also that the vent holes in the package would be covered with waterproof tape.
3/15/2007	Correction to subject line of February 16, 2007 letter
3/12/2008	Request for renewal of CoC USA/9215/B(U). Updated revisions of R-2014-G, Rev.1 & R-2019-G, Rev.1 were attached.
4/8/2010	Request to add special form Cs-137 sources to the list of authorized contents in our USA/9215/B(U) packages.
4/15/2010	Email regarding shipment of a special form Cs-137 in our 9215 package including plans for package configuration.
2/9/2012	Request with supporting documentation to increase the permissible activity limit for Cs-137 in our USA/9215/B(U) package from 600 Ci. to 20,600 Ci.
7/5/2012	Revised SAR to correct shielding calculations/analysis errors in our October 29, 1992 consolidated application
3/29/2013	Request for renewal of CoC USA/9215/B(U). Updated revisions of R-2014-G, Rev.2 & R-2019-G, Rev.2 were attached.
8/24/2018	Submitted modified Drawing 240116 Rev. J for review to be included in CoC 9215. CoC 9215, Rev 14 was issued on April 17, 2018.
9/22/2018	Submitted modified Drawing 240116 Rev. J for review to be included in CoC 9215. CoC 9215, Rev 14 was issued on April 17, 2018.
3/1/2018	Submitted modified Drawing 240116 Rev. J for review to be included in CoC 9215. CoC 9215, Rev 14 was issued on April 17, 2018.