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January 25, 2013

ATTN: Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safeguards and Security
U. S. Nuclear Regulatory Commission
Washington, D. C.

To Whom it May Concern:

As required by 10CFR71, (71.95), Neutron Products, Inc. is submitting this report to describe the condition of nonconforming package components that were identified during, and subsequent to, an NRC inspection that was completed at our facility in Ranson, WV on November 29, 2012. The requirements in **71.95, Reports**, and responses are referenced by letter and number as follows:

(c) (1) A brief abstract describing the major occurrences during the event, including all component or system failures that contributed to the event and significant corrective action taken or planned to prevent recurrence.

The components are the cover assemblies on the transfer cask for the USA/9215/B(U) Certificate of Compliance shipping package, Neutron Products, Inc. serial numbers TC-6 and TC-10. The cover assemblies on TC-6 and TC-10 were found to have lifting handles that were not fabricated in accordance with Neutron Products, Inc. drawing 240122, Rev. H, and were missing the gusset shown on the drawing. The package components had the same amount of steel and lead as the conforming cover assemblies. TC-6 was located at the Ranson facility and was identified during the NRC inspection. Following that identification, Neutron investigated other TC's which were in the field at the time of the inspection. As a result of that investigation, TC-10 was found to have end covers with the incorrect handles. TC-10 did not have a source in it at the time, and was not used again until it had been equipped with the correct end covers.

(c) (2) (i) Status of components or systems that were inoperable at the start of the event and that contributed to the event.

The package components had no inoperable components during the event.

(c) (2) (ii) Date and approximate times of occurrences.

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The following are the dates and approximate times of occurrences with this event:

- The incorrect cover assemblies on TC-6 and TC-10, used for shipments of radioactive materials, were installed on the transfer casks at an undetermined time in the past;
- The incorrect covers assemblies were identified in the NRC inspection of our quality program on November 26, 2012;
- The transfer cask, TC-6, with the incorrect cover assemblies was tagged as non-conforming and segregated and/or restricted from shipment of radioactive materials on November 29, 2012; and,
- The transfer cask, TC-10, was identified having the incorrect cover assemblies on November 26, 2012. We know that it had been used to make one radioactive materials shipment on September 29, 2012.

(c) (2) (iii) The cause of each component or system failure or personal error, if known.

The incorrect cover assemblies were previously used on transfer casks which were components of Certificate of Compliance USA/9102/B() which expired in 2008. These cover assemblies are identical in physical dimension, mounting pattern holes, and shielding value to the cover assemblies approved in the USA/9215/B(U) packages which have gussets added to the lifting handle to provide better stability to the cover assemblies when they are removed from the cask during field service operations. At some point in time, the incorrect cover assemblies were inadvertently installed on the affected transfer casks and subsequent inspections failed to detect the incorrect covers.

(c) (2) (iv) The failure mode, mechanism, and effect of each failed component, if known.

As described above, there has been no failure of the function of the component or of the package as a whole.

(c) (2) (v) A list of systems or secondary functions that were also affected for failures of components with multiple functions.

There were no systems or secondary functions of the package that were affected by this nonconformance.

(c) (2) (vi) The method of discovery of each component or system failure or procedural error.

The package components on TC-6 were determined to be nonconforming during an NRC inspection which began on November 26, 2012. As a result of that finding, we requested pictures of transfer casks at other locations and determined that TC-10 was also equipped with the covers with the wrong handles. All other TC's were found to have the correct covers.

(c) (2) (vii) For each human performance related root cause, a discussion of the cause(s) and circumstances.

It has not been determined at this point in time when the incorrect covers were assembled with TC-6 and TC-10. Measures have been put in place to ensure against a recurrence.

(c) (2) (viii) The manufacturer and model number (or other identification) of each component that failed during the event.

As noted in (c) (2) (iv), there was no failure of the component. The cover assemblies were used on the transfer cask, Model number S/TC MKII, serial numbers TC-6 and TC-10. TC-6 was manufactured by EJ Codd Company. TC-10 was manufactured by Brennan Weldment Company. The fault was not with the manufacturer, but was rather with operations conducted by Neutron.

(c) (2) (ix) For events occurring during use of a packaging, the quantities and chemical and physical form(s) of the package contents.

Packages shipped using the incorrect cover assemblies contained a maximum of 15,000 curies of cobalt-60. The shipment on September 29, 2012 contained approximately 3,500 curies of cesium-137.

(3) An assessment of the safety consequences and implications of the event. This assessment must include the availability of other systems or components that could have performed the same function as the components and systems that failed during the event.

There were no failures of packaging components during the shipments/event. The incorrect cover assemblies are constructed of lead filled steel and identical in dimensions and shielding value with the correct cover assemblies specified on the USA/9215/B(U) packages. Dose rates from survey results of the transfer cask used during these shipments were within regulatory limits and were at shipping levels equivalent to transfer casks using the correct cover assemblies. Thus, we conclude there were no safety consequences as a result of the use of the incorrect covers.

Correct cover assemblies were available for use with these shipments but the nonconforming covers were not identified as such by Neutron personnel prior to the shipment in question. Based upon the similarities in function of the conforming and nonconforming end covers, the primary safety implication relates more to the failure of the quality program to identify the problem (and other similar problems) than it does to any particular shipment.

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(4) A description of any corrective actions planned as a result of the event, including the means employed to repair any defects, and actions taken to reduce the probability of similar events occurring in the future.

Nonconformance 2012-002 has been initiated. Cover assemblies on all transfer casks have been inspected for the correct cover. The incorrect lids have been tagged nonconforming and have been segregated. No shipments of radioactive materials were allowed to proceed with the incorrect covers following discovery of the nonconformance. Corrective action will include revising maintenance procedure R-2019, loading procedure R-2014, and the inspection checklists to include inspection of the cover assemblies during routine maintenance and loading of the transfer casks during shipping activities.

As the deficiency addressed herein was not found in isolation, a more comprehensive, program-wide CAPA is being formulated to guard against significant conditions adverse to quality.

(5) Reference to any previous similar events involving the same packaging that are known to the licensee or certificate holder.

Alluded to above, similar problems were identified in the NRC inspection starting on November 26, 2012, with other 71.95 reports generated as a result.

(6) The name and telephone number of a person within the licensee's organization who is knowledgeable about the event and can provide additional information.

Jerry L. Fogle, QA Manager for Radioactive Transportation – He can be reached at all times from Monday through Thursday between 8 am and 4 pm at 301 349-5001.

(7) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

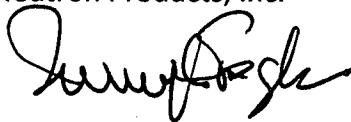
There was no exposure to radiation or radioactive materials to any individuals beyond normal handling as a result of this nonconformance.

We believe that this letter fulfills the requirements of 71.95, Reports. If you require any additional information, please contact me at 304 725-7041 or at neutrontele@frontiernet.net. If I am unavailable at this phone number, I can be reached through our main office at 301 349-5001.

Respectfully submitted,

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Neutron Products, Inc.

A handwritten signature in black ink, appearing to read "Jerry L. Fogle". The signature is fluid and cursive, with the first name "Jerry" being the most prominent part.

Jerry L. Fogle, Q. A. Manager
For Radioactive Transportation

Copy via electronic mail to: michele.sampson@nrc.gov