

November 8, 2012
REL:12:047



U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Director, Division of Spent Fuel Storage
and Transportation
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555-0001

Gentlemen:

Subject: 10 CFR 71.95 Report of Receipt of Shipment from European Affiliate Violating Requirements in USDOT Competent Authority Certificate USA/9217/AF Revision 15 and NRC Certificate of Compliance 9217 Revision 16; AREVA NP Inc. Richland Facility

Attached please find information as required by 10 CFR 71.95(c) for a shipment of $UO_2Gd_2O_3$ pellets received from an AREVA European facility that violated the applicable USDOT Competent Authority Certificate (CAC) USA/9217/AF Revision 15 and the underlying USNRC Certificate of Compliance (COC) 9217 Revision 16. License drawing EMF-304,306 Revision 8 requires that each of the two pellet suitcases transported within a Model ANF-250 package be secured with six latches (hold down clips). Contrary to this requirement, three individual pellet suitcases in three of the 26 ANF-250 packages received (August 28, 2012) and subsequently unloaded (September 14, 2012) at AREVA's Richland facility were found to be missing one of the required six latches. In each case the other five latches were present and secured.

As noted in the attachment, the safety consequences of this event are judged to be low. Despite missing one of the six pellet suitcase closure latches, the three affected suitcases remained tightly sealed, the ANF-250 inner and outer lids were in place, and there was no loss of containment of the transported product. The issue has been entered into, and addressed within, the Richland corrective action program and the implicated AREVA European affiliate has been notified of the occurrence.

If you have questions, please feel free to contact me at 509-375-8409.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Robert E. Link'.

R. E. Link, Manager
Environmental, Health, Safety, & Licensing

11/5/12

AREVA NP INC.

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Event Information Required by 10 CFR 71.95(c) Relative to Receipt of Model ANF-250 Packages not Meeting Requirements of License Drawing EMF-304,306 Revision 8

(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.

DOT Competent Authority Certificate (CAC) USA/9217/AF Revision 15 (which revalidates NRC Certificate of Compliance [COC] 9217 Revision 16) for the Model ANF-250 fissile package requires that the pellet shipping suitcases (K-boxes) meet the requirements of license drawing EMF-304,306 Revision 8.

Sometime prior to July 28, 2012, ANF-250 pellet suitcases (K-boxes) K1144, K1889 and K1903 were loaded with $UO_2-Gd_2O_3$ pellets at the AREVA Dessel, Belgium site with one latch (hold down clip) missing from each of the pellet suitcases, in violation of license drawing EMF-304,306 Revision 8. The non-compliant pellet suitcases were then loaded into ANF-250 packagings (K1144 into ANF-250 S/N 511, K1889 into ANF-250 S/N 1110, and K1903 into ANF-250 S/N 1209) and then shipped to the AREVA Advanced Nuclear Fuels (ANF) site in Lingen, Germany in violation of the Belgium and German ANF-250 certificates.

The three non-compliant ANF-250 packages were not unloaded in Lingen, but were combined with other ANF-250 packages full of $UO_2-Gd_2O_3$ pellets for shipment to AREVA NP's Richland, Washington site.

On July 28, 2012, AREVA ANF Lingen shipped the three non-compliant ANF-250 packages (S/N 511, 1110, and 1209) in a shipment of 26 ANF-250 packages to AREVA NP's Richland, Washington site. On August 28, 2012, the shipment of 26 ANF-250 packages arrived at AREVA NP's Richland, Washington site.

On September 14, 2012, while the 26 ANF-250 packages were being unloaded, pellet suitcases K1144, K1889, and K1903 were found to each have one missing latch (hold down clip). None of the missing latches were found inside the ANF-250 packages. There was no loss of material from the three non-compliant pellet suitcases; the other five latches on the pellet suitcases were fully functional and locked. The other 23 ANF-250 packages in the shipment were compliant to the license drawings and the certificate.

For discussion of corrective actions resulting from this event, see discussion under (4), below.

(2) A clear, specific, narrative description of the event that occurred so that knowledgeable readers conversant with the requirements of Part 71, but not familiar with the design of the packaging, can understand the complete event. The narrative description must include the following specific information as appropriate for the particular event.

A narrative of the event was provided under (1), above. NRC COC 9217 Revision 16 for the Model ANF-250 package, Section 5(b)(2)(ii,) requires the use of pellet suitcases that are compliant to drawing EMF-304,306, Rev. 8 when shipping uranium oxide pellets. ANF-250 packages S/N 511, 1110, and 1209 (containing 2.9% enriched uranium oxide pellets) were shipped by AREVA Dessel, Belgium by way of AREVA ANF Lingen,

Germany to AREVA NP's Richland Washington site with one of the two pellet suitcases in the ANF-250 packages missing one of the six closure latches in violation of COC 9217. Additional information related to the event is provided in (i) – (ix), below.

(i) Status of components that were inoperable at the start of the event and that contributed to the event;

As described in (1) above, on three of the pellet suitcases, one of the six required closure latches was missing.

(ii) Dates and approximate times of occurrences;

The shipment left Lingen, Germany on July 28, 2012 and arrived at AREVA NP's Richland site on August 28, 2012. On September 14, 2012 while ANF-250 S/Ns 511, 1110, and 1209 were being unloaded it was discovered that one of the two pellet suitcases in each of the ANF-250s was missing one of the six closure latches.

(iii) The cause of each component or system failure or personnel error, if known;

The personnel error appears to be that the AREVA Dessel operator who loaded the pellet suitcases with the UO₂ pellets assumed that having five of six closure latches on a pellet suitcase was acceptable. Also the error was not detected as the pellet suitcases were loaded into the ANF-250 packages.

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

The missing latches had to have been broken off the three pellet suitcases prior to their being loaded into the ANF-250 packages, since none of the broken latches were found inside the ANF-250 packages. The effect of one broken latch is minimal, since each pellet suitcase has a total of six latches.

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

There were no secondary functions that were affected by this event.

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

The three pellet suitcases with one missing closure latch were discovered by AREVA NP Richland personnel when the ANF-250 packages were being unloaded.

(vii) For each human performance-related root cause, a discussion of the causes and circumstances;

The human performance deficiency for the apparent cause appears to be that the AREVA Dessel operator who loaded the pellets into the pellet suitcases with the missing latches must have assumed that having one of the six latches missing on the pellet suitcase was acceptable.

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

The ANF-250 pellet suitcases were manufactured to the requirements of license drawing EMF-304,306 Revision 8 and the missing component is identified as the latch on the snap slide fastener shown in View A of the drawing.

(ix) For events during the use of a packaging, the quantities and chemical and physical forms(s) of the package contents;

Each of the three ANF-250 packages contained from 57.4 kg U to 77.5 kg U of approximately 2.9% enriched $UO_2-Gd_2O_3$ solid pellets.

(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.

The actual safety consequences of this event are low. Even though one of the six pellet suitcase closure clips was missing on three of the pellet suitcases, the pellet suitcases remained tightly sealed, the inner lids were in place, the outer drum lids were in place, and there was no loss of containment.

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

The non-compliant pellet suitcases have been placed on hold until they can be repaired at the AREVA Richland site. Both the AREVA Dessel and the AREVA ANF Lingen plants have been informed of the non-compliant shipment due to the missing pellet suitcase clips in order for them to review the incident with their respective personnel.

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

An event involving a shipment of uranium oxide powder from Cameco to AREVA NP Richland was reported to the NRC in August 2011 by AREVA NP. This shipment however involved an ANF-250 misconfigured for the shipment of powder; it did not involve use of the K-box pellet suitcase.

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

*Robert E. Link, Manager
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AREVA Richland Fuel Fabrication Plant
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(7) The extent of exposure to individuals to radiation or radioactive materials without identification of individuals by name.

This event did not involve the exposure of individuals to radiation or radioactive materials.