

10 CFR 71.95 REPORT EVALUATION FORM

Docket No.: 71-9319
Package Model No.: MAP-12
Report Submitted By: Robert E. Link, AREVA, Inc.
Report Date: February 7, 2014
Report ADAMS Accession No.: ML14041A442

Review the incoming report to determine if additional Commission or staff action is warranted. The review should consider whether the report identifies a generic defect or problem with the package design and the safety significance of the issue. Note that a high safety significance represents a potential for significant radiation exposure, medium safety significance represents a potential for some moderate radiation exposure, and low safety significance represents little or no potential for radiation exposure.

1. The report identifies:

- Significant reduction in the effectiveness of a package during use;
- Defect with a safety significance;
- Shipment in which conditions of the approval were not observed.

2. What is the safety significance? High Medium Low

3. Summary of the report:

On December 10, 2013, during a routine refurbishment inspection of Model No. MAP-12 packagings prior to use, an AREVA employee discovered buckling of the outer sheet metal on a base spacer of a MAP-12 package. Further examination of the packaging revealed that there was a small crack in the side plate near a weld that attaches the base spacer to the lower body of the MAP-12 package. An examination of other MAP-12 packagings found similar cracks and buckling in the side plates of some of the base spacers. As a result of these findings, all MAP-12 packagings were placed on hold for further inspection. An inspection of all 84 of the MAP-12 packages found that all of the first 69 MAP-12 packages, which were all manufactured by Nuweld, had small cracks in some of the base spacer side plates, and 45 of the 69 had excessive buckling in some of the base spacer side plates. The licensee found that the last 15 MAP-12 packagings, which were manufactured by CHT, had no visible cracks or buckling, and were acceptable for use. The provisions of 10 CFR 71.87(b) requires packages to be "...in unimpaired physical condition except for superficial defects such as marks and dents." The licensee has found that the 69 MAP-12 packages with cracks and buckling do not meet these conditions. Since the licensee does not know when the cracks and buckling started, it is unknown how many shipments were made in this condition.

The licensee found that the cracking and buckling was caused by improper fabrication and welding by the package manufacturer. Specifically, Nuweld did not properly meet the requirements of the fabrication drawings, which require a continuous fillet weld on the outside joint, and instead had intermittent fillet welds.

There was no impact on safety or exposure of radiation or radioactive materials to personnel as a result of this event.

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4. Corrective actions taken by the licensee:

All of the 24 packages with only cracked base spacers will be reworked to remove the cracks by grinding and welding. The 45 packagings with cracked and buckled base spacers will have the side plates straightened and the cracks removed by CHT. A continuous fillet weld will be added to the outside joint of these packages to ensure the package meets the fabrication drawings.

5. Staff comments:

The staff has reviewed the certificate holder's report, and its evaluation of the incident, and it agrees that the safety significance of the report is minor. The staff finds that the certificate holder's corrective actions should be sufficient to prevent future occurrences.

6. Staff conclusion:

- The report does NOT identify generic design or license/certificate issues that warrant additional Commission or staff action. This report is considered closed.
- There is a need to take additional action. Provide a summary of the bases and recommended actions:

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ADAMS P8 Accession No.: ML14311A959

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