

10 CFR 71.95 REPORT EVALUATION FORM

Docket No.: 71-9148
Package Model No.: 770
Report Submitted By: Lori Podolak, QSA Global, Inc.
Report Date: December 1, 2014
Report ADAMS Accession No.: ML14337A032

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:

The Model No. 770 is a source changer which only had one package fabricated in 2004. This report is being submitted to identify instances where the manufacturing of the package did not conform to the licensing drawings referenced in the certificate of compliance.

In 2004, changes made to procedures resulted in the removal of a dye-penetrant exam on the external welds of the package. This also called into question the quality of the welds internal to the package. In 2005, this procedure was revised to avoid changes being made to production drawings without approval and review of engineering and regulatory reviewers.

Next, at the time of manufacture, the unit was identified as non-conforming due to gaps present between the support plates, lock assembly, and tunnel walls. To remedy this, stainless steel shim plates were installed and welded into place in the gaps.

Additionally, the inner framework was specified to have 1 inch fillet welds spaced every three inches. In reality, these welds were a quarter to half inch longer and were spaced about half an inch closer together. This weld results in actually a stronger internal assembly and has no adverse impact, but the drawing should have been revised to correct the weld length and spacing.

Finally, the Model No. 770 contains a stainless steel skid which was identified to be 1 ½ inch square tubing in the licensing drawings. In the production drawings, the tubing was identified to be 2 inches and thereby resulted in an eight pound excess of the maximum allowable package weight of 970 lb. To decrease the weight, slots were cut into the square tubing. The licensing drawings do not present any slots in the tubing, and at the time, it was decided that the drawing was generic enough to allow for slots to be made. This skid does not affect the structural integrity of the package and was never factored into the original thermal evaluation of the package. In a structural evaluation, the package with slots in the skid was expected to actually perform better in the most vulnerable drop accident condition due to the additional energy it could absorb.

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On September 19, 2014, transport of the Model No. 770 was stopped. The previously stated issues did not contribute to any incidents or package failures.

4. Corrective actions taken by the licensee:

- QSA Global, Inc., stopped the transport and any further manufacture of the Model No. 770.
- QSA Global, Inc., requested termination of the certificate of compliance. NRC staff terminated the certificate in a letter dated January 20, 2015 (ML15021A299).

5. Staff comments:

None.

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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