

10 CFR 71.95 REPORT EVALUATION FORM

Docket No.: 71-9218
Package Model No.: TRUPACT-II
Report Submitted By: T.E. Sellmer, Nuclear Waste Partnership LLC
Report Date: December 12, 2013
Report ADAMS Accession No.: ML13353A048

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 12, 2013, the licensee reported that during 2010 and 2011, ten (10) shipments of Model No. TRUPACT-II packages, shipped from Los Alamos National Laboratory, using Certificate of Compliance (CoC) No. 9218, did not meet the conditions of Section 5 of the CoC. Condition No. 5(b)(2) of the CoC states that all payloads of the package shall meet the activity limits specified in CH-TRAMPAC, Rev. 4, Section 3.3, which is part of the package's consolidated application. The licensee determined that these 10 shipments exceeded the 406 Ci limit specified in Section 3.3 of the CH-TRAMPAC. The applicant discovered the non-compliance during software regression testing of the WDS software used to evaluate the radionuclide content of the package payloads. The actual radionuclide activity within the 10 non-compliant shipments ranged from 407.22 Ci, up to 455.24 Ci.

The licensee determined that the non-compliance was caused by a WDS software change, made in 2009, that incorrectly prevented a pass/fail flag from being forwarded to the user making the final evaluation for compliance.

Although these shipments exceeded the payload activity limits, all pre-shipment radiation surveys at the package surface and at 2 meters from the outer edges of the transport trailers were in compliance with the regulatory limits. All other conditions of the certificate were met, and there was no loss or dispersal of radioactive material as a result of this event.

4. Corrective actions taken by the licensee:

- The WDS software activity limit evaluation will be corrected.
- Validation testing on the WDS software correction will be performed to ensure that the software is performing the activity limit evaluations correctly, in accordance with the CH-TRAMPAC Section 3.3.1.2.

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- The WDS software testing program will continue to expand its test suite to include additional testing and validation that will be utilized prior to release of the software to evaluate both new software changes and impacts to previously implemented software logic.
- A report created by the WDS software will include the total activity plus error value for the payload to allow personnel to independently verify the total activity prior to acceptance of the payload for shipment.
- Additional training will be given to all personnel after the revision to the WDS report has been completed and approved for use.

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 event 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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