

Washington
TRU Solutions LLCPK:08:00021
UFC:5822.00

August 1, 2008

Ms. Kimberly Hardin, Project Manager
NMSS/SFPO MS/013D13
U.S. Nuclear Regulatory Commission
One White Flint North
15555 Rockville Pike
Rockville, MD 20852-2738

Subject: REPORT PURSUANT TO 10 CFR 71.95

Dear Ms. Hardin:

On behalf of the U. S. Department of Energy Carlsbad Field Office (DOE/CBFO), this letter is submitted to report a condition pursuant to 10 CFR 71.95(c) regarding the use of TRUPACT-II Packaging Unit 189. This packaging operates under the U.S. Nuclear Regulatory Commission (NRC) Certificate of Compliance Number 9218.

(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:

On June 5, 2008, Washington TRU Solutions LLC (WTS) discovered that TRUPACT-II (TP-II) Packaging Unit 189, which comprised a portion of shipment number LA080037, had been shipped with one of the applicable Payload Container Transportation Certification Document(s) (PCTCD) incorrectly completed. The PCTCD for one of the four 55-gallon drums (container # LAS817174) overpacked into a Standard Waste Box (SWB) reflected that the drum contained free liquids less than 1% of the payload container volume. It was confirmed later that drum # LAS817174 had a nonconformance report (NCR) issued against it and had been tagged accordingly for containing free liquids greater than 1% of the payload container volume. Shipment number LA080037 was shipped from Los Alamos National Laboratory (LANL) in New Mexico on May 21, 2008, received at the Waste Isolation Pilot Plant (WIPP) on May 21, 2008, and safely unloaded with the contents of the shipment emplaced in the underground on May 28, 2008. There were no component or system failures that attributed to the event.

DOE/CBFO issued a corrective action report and a formal corrective action plan from WTS Central Characterization Project (CCP) has been submitted and approved by DOE/CBFO.

Immediate corrective actions implemented were:

- Suspended all shipments to WIPP pending completion of all immediate corrective actions
- Performed 100% verification that the shipped containers in route to WIPP on June 6, 2008 or received at WIPP but not yet emplaced, were compliant and had no unresolved NCR's
- Performed 100% verification that the unshipped containers currently certified in the WIPP Waste Information System (WWIS), were compliant for shipment and had no unresolved NCR's
- Work place meetings were conducted with CCP personnel emphasizing that all reviews must be performed to the required rigor and explaining the potential liabilities of inadequate review

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- CCP has implemented two additional interim reviews to ensure no containers are certified or shipped with unresolved NCR's. These additional reviews will remain in place until the recurrence prevention actions delineated below were fully implemented
- A physical inventory of all containers with unresolved NCR's was conducted at LANL
- A complex wide electronic inventory and status was performed on all payload containers with unresolved NCR's at all CCP locations

Actions to prevent recurrence are:

- Detailed meetings were held with the applicable CCP personnel responsible for performing final certification activities of the payload containers to review their roles and responsibilities along with the management expectations for performing reviews
- The electronic database module used by CCP to verify and track the current status of payload containers with unresolved NCR's has been updated to add a secondary verification feature prior to payload containers being approved for shipment
- CCP has implemented the use of wire cable attachments with an integral securing feature for the application of NCR tags on payload containers replacing the previously used plastic ties to reduce the recurrence of NCR tags falling off due to deterioration of the plastic ties or inadvertent removal.

(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:

Section 8 of the NRC Certificate of Compliance Number 9218, Revision 18, issued for the TRUPACT-II requires that "Payload containers within a package shall be selected in accordance with the Contact Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC), Rev. 2, Section 6.0 "Payload Assembly Requirements"."

Section 6.2 of the CH-TRAMPAC requires that a PCTCD be completed for each payload container to be overpacked. The PCTCD requires verification that the payload container has free liquids less than 1% of the payload container volume.

On April 23, 2008 personnel at LANL overpacked four 55-gallon drums into SWB #LASB00411, one of these drums was container #LAS817174. These drums were assembled into the overpack configuration due to container integrity issues associated with the individual drums. As part of the payload assembly procedures the individual drums are visually examined to ensure that no NCR tags are attached prior to assembly into the overpack configuration, none were noted. It is speculated that the NCR tag originally placed on the drum was inadvertently removed or fell off of the drum prior to being loaded into the SWB

Unknown at the time of payload assembly and shipment, container #LAS817174 had an unresolved NCR against it for failing a required visual examination of the contents. Container #LAS817174 was noted as having greater than 1% by volume of free liquids during visual examination and was rejected with an NCR being written and the required NCR tag was attached to the drum. SWB #LASB00411 was loaded into TP-II Packaging Unit 189 and shipped to WIPP as part of shipment number LA080037 on May 21, 2008. All other conditions required for the operation and shipment of the package in accordance with the certificate of compliance were adhered to.

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

This criterion is not applicable to the event because there were no components or systems that were inoperable at the start of the event.

(2)(ii) Dates and approximate times of occurrences;

May 21, 2008 (time unknown).

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

No components or systems failed. CCP certification personnel failed to adequately perform the required unresolved NCR verification activities for container #LAS817174 prior to certifying the drum in WWIS.

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

This criterion is not applicable to the event because no components failed.

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

This criterion is not applicable to the event because no components failed.

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

The issue was discovered by the CCP Quality Assurance Department while performing a routine check of unresolved NCR's, when the applicable database used for this activity reflected the status of container #LAS817178 as "Emplaced on 05/28/2008".

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

Personnel performing the review of the drum data during the required container certification process failed to recognize that the drum still had an unresolved NCR against it. The drum had been through and passed an examination for prohibited items using real time radiography (RTR) in April of 2004. In accordance with the WIPP Hazardous Waste Facility Permit requirements in place at that time this particular drum was also randomly chosen to be subjected to a visual examination (VE) in April of 2005. During the VE the inspector noted that the drum contained free liquids greater than 1% of the payload containers volume. An NCR was generated and the drum was tagged accordingly. It is speculated that the NCR tag originally placed on the drum was inadvertently removed or fell off prior to being loaded into the SWB.

The personnel performing the drum data review did not recognize that the VE had been performed after the RTR of the drum. They assumed the drum had been through the required remediation process to correct the condition detected by the VE and had subsequently been through the RTR process and had been accepted. This resulted in the drum being shipped with an unresolved NCR against it.

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

Manufacturer and model numbers associated with component failure are not applicable because no components failed.

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

The package contained two SWB's container numbers LASB00409 & LASB00411; chemical and physical form(s) of contents as follows:

<<< RADIONUCLIDES >>>

Radionuclide Description	Activity (Ci)	Percent
Am-241 Americium 241	4.8244270000	2.00
Am-243 Americium 243	.0002082000	<.00
Cs-137 Cesium 137	.0000454587	<.00
Np-237 Neptunium 237	.0001133783	<.00
Pu-238 Plutonium 238	189.9014900000	78.67
Pu-239 Plutonium 239	12.5074327000	5.18
Pu-240 Plutonium 240	3.3019400000	1.37
Pu-241 Plutonium 241	30.8206000000	12.77
Pu-242 Plutonium 242	.0036987990	<.00
Sr-90 Strontium 90	.0000454587	<.00
U-232 Uranium 232	.0000321000	<.00
U-234 Uranium 234	.0294906000	.01
U-235 Uranium 235	.0000031123	<.00
Total:	241.3895268070	100.00

<<< MATERIALS PHYSICAL & CHEMICAL FORM >>>

Materials Description	Weight (kg)
Iron-Based Metal Alloys	296.4
Other Metals/Alloys	1.5
Solidified Inorganic Material	624.0
Other Inorganic Materials	19.3
Cellulosics	17.3
Rubber	.5
Plastics	51.9
Steel Container Materials	580.0
Total Weight:	1590.9

(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 safety consequences relating to the event. There were no systems or components that failed during the event.

(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.

The following corrective actions were taken to prevent recurrence:

- Detailed meetings were held with the applicable CCP personnel responsible for performing final certification activities of the payload containers to review their roles and responsibilities, along with the management expectations for performing reviews
- The electronic database module used by CCP to verify and track the current status of payload containers with unresolved NCR's has been updated to add a secondary verification feature prior to payload containers being approved for shipment
- CCP has implemented the use of wire cable attachments with an integral securing feature for the application of NCR tags on payload containers replacing the previously used plastic ties to reduce the recurrence of NCR tags from falling off due to deterioration of the plastic ties or inadvertent removal.

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

There have been no similar or known events involving the same packaging by the certificate holder.

(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.

Mr. M.W. Percy, Manager Project Certification, WTS CCP, (505) 234-7394.

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

There were no exposures to individuals as a result of the event.

If you have any questions or require additional information regarding this report, please contact me at (505) 234-7396.

Sincerely,

Original signature on file

T. E. Sellmer
Packaging Manager
Washington TRU Solutions, LLC

TES:yhc

cc: D.C. Gadbury, CBFO	ED
M. R. Brown, CBFO	ED
M. A. Italiano, CBFO	ED
D. S. Miehl, CBFO	ED
M. P. Navarette, CBFO	ED

Ms. K. Hardin

August 1, 2008

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bcc: D. H. Haar ED
 M. W. Percy ED
 P. A. Ridenour ED