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September 10, 2007

71-9218

Mr. Meraj Rahimi, 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 Mr. Rahimi:

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 number 190. 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 July 17, 2007, representatives from the Advanced Mixed Waste Treatment Project (AMWTP) located at Idaho National Laboratory contacted the Carlsbad Field Office and Washington TRU Solutions LLC (WTS) to report that TRUPACT-II number 190, which comprised a portion of shipment number IN070356, contained a 55-gallon drum overpacked in a Standard Waste Box (SWB) that was not reflected on the applicable payload documentation nor had it been fully characterized in accordance with the Contact Handled Transuranic Waste Authorized Methods for Payload Control, Revision 2 (CH-TRAMPAC) per the NRC issued Certificate of Compliance number 9218. There were no component or system failures attributed to the event.

The shipper (AMWTP) issued a corrective action report and corrective action plan to identify and address the issue. The immediate corrective actions implemented consisted of:

1. Suspension of all payload assembly activities involving overpacks at AMWTP.
2. Suspension of all shipments to the Waste Isolation Pilot Plant (WIPP).
3. Initiation of an "Extent of Condition Evaluation". This evaluation identified eight shipments that were en route to or received at WIPP but not yet emplaced that had overpacked containers.
4. Performance of a 100% verification of the eight shipments that were in route to or received at WIPP but not yet emplaced. The verification reflected that all inner containers for all overpack payloads were accurately identified in the applicable AMWTP software program and in the WIPP Waste Information System (WWIS).

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5. All previously assembled overpack payload inner containers remaining at AMWTP were verified to match those listed on the applicable payload preparation documentation. This was performed under the direct oversight of subject matter experts from the WIPP Project. All previously shipped overpack containers were verified by comparison of the tracking and inventory system to the payload assembly documentation.
6. Modified applicable AMWTP payload assembly and waste certification procedures to incorporate appropriate changes.

(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:

Sections 6, 7 & 8 of the NRC Certificate of Compliance number 9218, Revision 18, issued for the TRUPACT-II require that payload properties be determined and limited in accordance with the CH-TRAMPAC Revision 2.

On June 10, 2007, Operations Technicians from AMWTP loaded four drums in to SWB #BN10166592. The four individual drums listed on the WWIS Container Data Sheet Page 3 as selected by the Transportation Certification Official (TCO) were; 10147868, 10149070, 10147752 and 10106194. The personnel responsible for retrieving the four drums from their respective storage locations to build the SWB payload the Operations Technicians retrieved drum numbers 10147868, 10149070, 10147752 and 10161094. Drum number 10161094 was retrieved in error. The payload assembly process was completed using the four drums retrieved. A verification of the drum numbers was conducted prior to the placement of the overpack lid onto the overpack container. However, the verification that the operators conducted was ineffective to ensure that the containers specified in the WWIS Container Data Sheet Page 3 were, in fact, the containers that were overpacked. The operators only verified that the drum numbers were successfully barcode scanned into the AMWTP software container tracking program. The payload was authorized for shipment to WIPP. Drum number 10161094 that comprised a portion of SWB #BN10166592 had not been fully characterized in accordance with the applicable sections of the CH-TRAMPAC, Revision 2. TRUPACT-II number 190 was shipped from AMWTP to the WIPP site on June 23, 2007 as part of shipment number IN070356. The shipment was received at WIPP on June 25, 2007 and SWB #BN10166592 was emplaced in the underground at WIPP on June 27, 2007 without incident. 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;

June 23, 2007 at 12:16 PM MST

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

No components or systems failed. Personnel failed to select the approved container for shipment. Personnel also failed to properly verify that the drum serial numbers retrieved matched those listed on the approved WWIS Container Data Sheet Page 3.

(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 identified by AMWTP personnel during a routine inventory exercise on July 16, 2007 when a drums electronic inventory status indicated "shipped to WIPP" was discovered in storage at AMWTP. This condition was confirmed and reported to CBFO and WTS on July 17, 2007.

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

The first cause of the non-compliance was a failure of the AMWTP personnel to select the approved container for overpacking and shipment. The second cause was a failure to verify that the drum serial numbers being placed into the SWB matched those listed on the WWIS Container Data Sheet Page 3. The applicable AMWTP payload assembly procedure was ambiguous in the steps pertaining to verification of approved containers for overpacking and shipment.

(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.*

SWB #BN10166592

Radionuclides:

<u>Nuclide</u>	<u>Activity(ci)</u>
Am-241	.024300000
Cs-137	.000000000
Np-237	.000001062
Pu-238	.001385000
Pu-239	.045370000
Pu-240	.010090000
Pu-241	.134300000
Pu-242	.000001305
Sr-90	.000000000
U-233	.000000000
U-234	.000018270
U-235	.000004621
U-238	.000063490

Totals: 0.215533748

Physical and Chemical Form:

<u>Description</u>	<u>Weight (kg)</u>
Iron Base Metal Alloys	107.08 kg
Other Inorganic Materials	4.08 kg
Solidified Inorganic Material	775.37 kg
Plastics	58.36 kg
<u>Steel Container Materials</u>	<u>290.00 kg</u>
Total Material Weight	1,055.14 kg

SWB # BN10169719

Radionuclides:

<u>Nuclide</u>	<u>Activity(ci)</u>
Am-241	.000124500
Cs-137	.000000236
Np-237	.000000416
Pu-238	.556300000
Pu-239	.000839300
Pu-240	.000573000
Pu-241	.000726300
Pu-242	.000000657
Sr-90	.000000260
U-233	.000000000
U-234	.000000000
U-235	.000000000
<u>U-238</u>	<u>.000000000</u>

Totals: 0.558564669

Physical and Chemical Form:

<u>Description</u>	<u>Weight (kg)</u>
Iron Base Metal Alloys	107.04 kg
Cellulosics	7.08 kg
Solidified Inorganic Material	1,033.06 kg
Plastics	29.04 kg
<u>Steel Container Materials</u>	<u>290.00 kg</u>
Total Material Weight	1,466.22 kg

(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 as verified by subsequent performance of all required CH-TRAMPAC parameters for SWB #BN10166592. All other TRUPACT-II Certificate of Compliance limits were met. 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 prior to resuming shipments:

- Assigned subject matter experts from the WIPP Project to the AMWTP to perform oversight for payload assembly and shipment verification activities at AMWTP.
- Revised applicable procedures relative to the operating procedure used at AMWTP for payload assembly.
- Revised applicable procedures relative to waste certification processes used at AMWTP.
- Initiated secondary verification hold point by the applicable AMWTP Transportation Certification Official (TCO) for each drum identified for payload assembly prior to authorization of the payload assembly for shipment.
- Initiated tertiary verification hold point by subject matter experts from the WIPP Project for each drum identified for payload assembly prior to authorization of the payload assembly for shipment.
- Performed training of all affected AMWTP personnel on all applicable procedure revisions and interim work instructions.
- Implemented controls to segregate approved characterized and certified containers from non-characterized and non-certified containers.
- Conducted a CBFO TRUPACT-II and HalfPACT users lessons learned session was conducted.

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

There are no previous occurrences of a non fully characterized payload container being shipped to the WIPP Site.

(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. D.K. Ploetz, Manager Central Characterization Program WTS, (505) 234-7125.

(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,



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

TES:yc

Mr. M. Rahimi

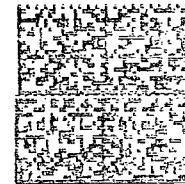
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