

71-9218



PK:07:00035
UFC:1000.00

December 14, 2007

Mr. Meraj Rahimi, Senior 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

Reference: WTS Memorandum TP:01:08004:UFC:2300:00 from M. L. Caviness to D. H. Tiktinsky, dated May 7, 2001, subject: Report Pursuant to 10 CFR 71.95(c)

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 (italicized below) regarding the use of TRUPACT-II numbers 163, 190 & 200. 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:

Three shipments of transuranic waste listed below were shipped in TRUPACT-IIs with an incorrect shipping category identified on 5 individual 55-gallon drums. The shipments were completed, the contents removed from the TRUPACT-IIs, and the payload containers emplaced in the Waste Isolation Pilot Plant (WIPP) underground before the non-compliance was discovered.

- Shipment # IN070499 from Advanced Mixed Waste Treatment Project (AMWTP) at Idaho National Laboratory (INL) to WIPP on 10/16/07
 - TRUPACT-II [redacted] Text Withheld Under 10 CFR 2.390 [redacted]
- Shipment # IN070500 from AMWTP to WIPP on 10/17/07
 - TRUPACT-II [redacted] Text Withheld Under 10 CFR 2.390 [redacted]
- Shipment # IN070506 from AMWTP to WIPP on 10/20/07
 - TRUPACT-II [redacted] Text Withheld Under 10 CFR 2.390 [redacted]

There were no system or component failures associated with this event. A corrective action report was generated by the certifying authority for the waste (Central Characterization Project [CCP] of Washington TRU Solutions, LLC [WTS]). The corrective actions taken to preclude recurrence included:

- Additional training classes for the applicable personnel

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- A "lessons learned" report to clearly and adequately describe the event
- Updated mandatory training for all Waste Certification Officials (WCO) and Waste Certification Assistants (WCA) on packaging configurations relevant to the assignment of shipping categories
- Independent verification of assigned shipping categories prior to submittal for certification

(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 7 of the NRC Certificate of Compliance number 9218, Revision 18, issued for the TRUPACT-II requires that each payload container must be assigned a shipping category in accordance with CH-TRAMPAC, Revision 2, Section 5.1, "Payload Shipping Category". The Contact Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC), Revision 2, Section 5.1, Payload Shipping Category identifies one of the parameters used to determine a shipping category for a payload container as "Gas release resistance (type of payload container and type and maximum number of confinement layers used)".

On October 24, 2007 a representative of the CCP of WTS identified a discrepancy in the shipping category selected for a population of waste drums that was scheduled to be shipped to the WIPP Site. The discrepancy identified concerned the number of confinement layers identified in the shipping category chosen for the payload containers in question. The shipping category chosen reflected the layers of confinement as "one"; however, supporting documentation reflected the actual layers of confinement as "two". During the course of investigating the discrepancy it was identified that the incorrect shipping category (relative to the layers of confinement) had been assigned to five waste drums (identified above) that had recently been shipped to the WIPP Site from the AMWTP at INL. After identification and verification that the five waste drums shipped did not have the correct shipping category assigned to them at the time of shipment, the shipping documentation was corrected to reflect the correct shipping category. The three payloads that included the five waste drums were then re-evaluated under the corrected shipping category and were confirmed to meet all requirements of the CH-TRAMPAC, Revision 2.

(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;

- October 16, 2007, Shipment #IN070499
- October 17, 2007, Shipment #IN070500
- October 20, 2007, Shipment #IN070506

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

No components or systems failed. Personnel failed to properly verify that the correct shipping category was assigned relative to the layers of confinement.

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

Physical and Chemical Form:

<u>Description</u>	<u>Weight (kg)</u>
Iron Base Metal Alloys	272.00 kg
Other Inorganic Materials	18.00 kg
Plastics	80.50 kg
Solidified Organic Material	1,617.00 kg
Steel Container Materials	725.62 kg
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Total Material Weight	2,713.12 kg

Shipment *Text Withheld Under 10 CFR 2.390*

Radionuclides:

Text Withheld Under 10 CFR 2.390

Physical and Chemical Form:

<u>Description</u>	<u>Weight (kg)</u>
Iron Base Metal Alloys	272.20 kg
Other Inorganic Materials	18.70 kg
Plastics	81.50 kg
Solidified Organic Material	1,576.60 kg
Steel Container Materials	725.62 kg
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Total Material Weight	2,674.62 kg

Shipment Text Withheld Under 10 CFR 2.390

Radionuclides:

Text Withheld Under 10 CFR 2.390

Physical and Chemical Form:

Description	Weight (kg)
Iron Base Metal Alloys	274.00 kg
Other Inorganic Materials	17.10 kg
Plastics	82.00 kg
Solidified Organic Material	1,641.90 kg
Steel Container Materials	725.62 kg
Total Material Weight	2,740.62 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. The three payloads that included the five waste drums were re-evaluated under the corrected shipping category and were confirmed to meet all requirements of the CH-TRAMPAC, Revision 2. All other TRUPACT-II Certificate of Compliance limits was 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 or planned to prevent recurrence:

1. Additional training classes for the applicable personnel.
2. A "lessons learned" report to clearly and adequately describe the event.
3. Updated mandatory training for all Waste Certification Officials (WCO) and Waste Certification Assistants (WCA) on packaging configurations relevant to the assignment of shipping categories.

4. Independent verification of assigned shipping categories prior to submittal for certification.

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

As reported to the NRC on May 7, 2001 (see reference), Idaho National Engineering & Environmental Laboratory shipment IN010053 consisted of a TRUPACT-II loaded with 14 drums, 7 dunnage and 7 waste drums. Of the 7 waste drums, 6 were Waste Type 30 (solid organics) and 1 was Waste Type 20 (solid inorganics). This resulted in a payload that was comprised of two different shipping categories, which at that time was not allowed under the TRUCT-II Certificate of Compliance.

(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, Project Certification Manager, Central Characterization Program WTS, (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,



T. E. Sellmer, Manager
Packaging
Retrieval, Characterization and Transportation

TES:jeh

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