



A URS-led partnership with B&W and AREVA

CP:14:01033  
UFC:5822.00

February 3, 2014

ATTN: Document Control Desk  
Director, Spent Fuel Project Office  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: REPORT PURSUANT TO 10 CFR 71.95

Dear Ms. Akhavannik:

Nuclear Waste Partnership (NWP) LLC, on behalf of the U.S. Department of Energy Carlsbad Field Office, submits this letter to report a condition pursuant to 10 CFR 71.95 regarding the use of the Type B packaging model number TRUPACT-II, serial numbers 141, 188, and 196. These packagings operate under the U.S. Nuclear Regulatory Commission Certificate of Compliance (CofC) No. 9218. During a shipment of transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP) originating from Los Alamos National Laboratory (LANL), the conditions in Section 10 of CofC No. 9218 were not followed in their entirety.

Following is a description of the event, reported in accordance with 10 CFR 71.95(c):

*(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:*

Shipment LA080041, identified as a 20 day close proximity shipment (within a radius of 1000 miles from WIPP), was not vented within the allotted 20 day time limit specified in CH-TRU Payload Appendix 3.5. The shipment was made from LANL on July 31, 2008 at 6 PM and was received August 1, 2008 at 1:15 AM at the WIPP. The shipment, with its three (3) loaded packages, was staged for future processing in the Parking Area Unit (PAU) within the WIPP facility. The three (3) packages exceeded the required vent date before being properly vented and processed.

There were no major occurrences during the event and no component or system failures that contributed to the event. However, the conditions in CofC 9218 were not followed in their entirety for this shipment.

The following interim corrective/preventive actions were implemented to preclude recurrence:

IE72

- All currently staged packages were re-verified for the correct vent date to ensure compliance with the CH-TRU Payload Appendix analyses.

*(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:*

The NRC CofC 9218, Revision 18, issued for the TRUPACT-II in July of 2005, states in Section 10, "For close-proximity and controlled shipments meeting the conditions specified in Appendices 3.5 and 3.6, respectively, of CH-TRU Payload Appendices, shipping periods of 20 days and 10 days may be applicable." CH-TRU Payload Appendix 3.5 Rev. 1, *Shipping Period—Close Proximity Shipments*, states "For close-proximity shipments, the TRUPACT-II or HalfPACT is loaded at the site, transported within a radius of approximately 1,000 miles, and vented within a maximum of 20 days from the closure (or sealing) of the inner containment vessel (ICV)." Shipment LA080041 spent 7 hours in transit to the WIPP facility and was then parked and staged in the PAU. The shipment remained in the PAU without being vented for longer than the allowed 20 days.

The following payloads exceeded the 20 day close proximity limit:

<b>Date / Time Shipped (MST)</b>	<b>Shipment No.</b>	<b>TRUPACT-II No.</b>	<b>Payload ID Number</b>	<b>ICV Closure Date</b>	<b>ICV Vent Date</b>	<b>Time ICV Remained Sealed (days)</b>
7-31-2008 / 18:00	LA080041	188	LA0937	7-31-2008	8-27-2008	27
		141	LA0938	7-31-2008	8-26-2008	26
		196	LA0939	7-31-2008	8-26-2008	26

All other conditions required for the operation and shipment of the packages in accordance with the CofC 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;*

There were no components or systems that were inoperable at the start of the event.

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

See table above for shipment dates and approximate times.

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

The Transportation Engineer failed to determine the vent deadlines for these packages due to the procedures lack of special controls specifically addressing 20 day shipments. The procedures only refer to the special considerations of controlled (10 and 5 day) shipments and not close proximity shipments.

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

No components failed.

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

No components failed.

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

The close proximity shipment non compliance was identified while performing the outlined corrective action plan in previous NWP reportable letter number CP:13:01490. See section (5) for description of this reportable letter.

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

Previous waste handling and waste receipt procedures used at the WIPP Site did not identify close proximity shipments for special consideration in tracking the required vent dates. The separation between the required vent times of our transportation certification documents and the waste handling procedures is what caused the incident.

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

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 following tables summarize the radionuclide content, including uncertainty, and physical and chemical form of the package contents on a per payload basis:

Payload ID LA0937:

Radionuclides:

Security Related Information:  
Table Withheld Under  
10 CFR 2.390

## Physical and Chemical Form:

<u>Material Category</u>	<u>Material Type</u>	<u>Weight (lbs)</u>
Waste	Metallic	19.85
	Inorganic	3689.63
	Organic	92.83
Payload Materials	Metallic	855.10
	Plastic	190.07
	<u>Total</u>	<u>4847.47</u>

Payload ID LA0938:

Radionuclides:

Security Related Information:  
Table Withheld Under  
10 CFR 2.390

Physical and Chemical Form:

<u>Material Category</u>	<u>Material Type</u>	<u>Weight (lbs)</u>
Waste	Metallic	219.40
	Inorganic	3482.58
	Organic	71.88
Payload Materials	Metallic	855.10
	Plastic	197.57
	Total	4826.52

Payload ID LA0939:

Radionuclides:

Security Related Information:  
Table Withheld Under  
10 CFR 2.390

## Physical and Chemical Form:

Material Category	Material Type	Weight (lbs)
Waste	Metallic	625.78
	Inorganic	1498.30
	Organic	181.47
Payload Materials	Metallic	1280.22
	Total	3585.77

*(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 systems or components that failed during the event. There were no safety consequences or implications of 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.*

- WIPP Site waste handling and waste receipt procedures are being revised to include special considerations and vent time tracking for close proximity shipments to prevent a package from going past its venting deadline.
- Training of applicable personnel on the revisions to the waste handling and waste receipt procedures.

There were no defects requiring repair associated with this event.

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

Nuclear Waste Partnership letter number CP:13:01490, dated 11/11/2013:  
10 day controlled shipment exceeded it's required ventilation time.

*(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.*

T.E. Sellmer, Manager, NWP, Central Characterization Program (CCP), Transportation Packaging (575) 234-7396

*(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. All pre-shipment surveys satisfied the regulatory dose rate limits.

If you have any questions or require additional information regarding this report, please contact me at (575) 234-7396.

Sincerely,



T. E. Sellmer, Manager  
Transportation Packaging

ML:jmc

cc: M. R. Brown, CBFO  
G. Hellstrom, CBFO  
D. S. Miehs, CBFO

J. C. Rhoades, CBFO  
J. R. Stroble, CBFO

bcc: NWP Distribution

R. M. Britain	ED
D. N. Cook	ED
B. A. Day	ED
M. S. Devarakonda	ED
A. M. Johnson	ED
S. J. Kennedy	ED
M. A. Lastra	ED
S. V. McGonagill	ED
T. R. Reynolds	ED
J. M. Willis	ED
NTPC Records Custodian	GSA-212