UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001
August 6, 2009

Mr. Todd Sellmer
Washington TRU Solutions LLC
P.O. Box 2078
Carlsbad, NM 88221

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9218 FOR THE MODEL NO. TRUPACT-II PACKAGE

Dear Mr. Sellmer:

As requested by your application on behalf of the Department of Energy (DOE) dated July 21, 2009, enclosed is Certificate of Compliance No. 9218, Revision No. 20, for the Model No. TRUPACT-II package. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's Safety Evaluation Report is also enclosed.

The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR 173.471. Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471. Registered Users may request by letter to remove their names from the Registered Users List.

If you have any questions regarding this certificate, please contact me or Kimberly Hardin of my staff at (301) 492-3302.

Sincerely,

Eric J. Benner, Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9218
TAC No. L24359

Enclosures:
1. Certificate of Compliance No. 9218, Rev. No. 20
2. Safety Evaluation Report
3. Registered Users List

cc w/encls 1 & 2: R. Boyle, Department of Transportation
J. Shuler, Department of Energy
Registered Users

NRC FORM [illegible] NUCLEAR REGULATORY COMMISSION

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

[illegible] NUMBER	REVISION NUMBER	DOCKET NUMBER	PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9218	20	71-9218	USA/9218/B(U)F-96	1 OF	5

2. PREAMBLE

a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."

b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION.

a. ISSUED TO: *Name and Address*

Department of Energy
Washington, DC 20585

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION:

Washington TRU Solutions LLC application dated October 4, 2004, as supplemented

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

(1) Model No.: TRUPACT-II

(2) Description

A stainless steel and polyurethane foam insulated shipping container designed to provide double containment for shipment of contact-handled transuranic waste. The packaging consists of an unvented, 1/4-inch thick stainless steel inner containment vessel (ICV), positioned within an outer containment assembly (OCA) consisting of an unvented 1/4-inch thick stainless steel outer containment vessel (OCV), a 10-inch thick layer of polyurethane foam and a 1/4 to 3/8-inch thick outer stainless steel shell. The package is a right circular cylinder with outside dimensions of approximately 94 inches diameter and 122 inches height. The package weighs not more than 19,250 pounds when loaded with the maximum allowable contents of 7,265 pounds.

The OCA has a domed lid which is secured to the OCA body with a locking ring. The OCV containment seal is provided by a butyl rubber O-ring (bore seal). The OCV is equipped with a seal test port and a vent port.

The ICV is a right circular cylinder with domed ends. The outside dimensions of the ICV are approximately 73 inches diameter and 98 inches height. The ICV lid is secured to the ICV body with a locking ring. The ICV containment seal is provided by a butyl rubber O-ring (bore seal). The ICV is equipped with a seal test port and vent port. Aluminum spacers are placed in the top and bottom domed ends of the ICV during shipping. The cavity available for the contents is a cylinder of approximately 73 inches diameter and 75 inches height.

5.(a)(3) Drawings

The packaging is constructed in accordance with Packaging Technology, Inc., Drawing No 2077-500 SNP, sheets 1 through 11, Rev X. The contents are positioned within the packaging in accordance with the Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC) Rev 3, Section 2.9, "Payload Container/Assembly Configuration Specifications." The standard pipe overpack is constructed and assembled in accordance with Packaging Technology, Inc. Drawing No 163-001, Rev. 6 The S100 pipe overpack is constructed and assembled in accordance with Packaging Technology, Inc. Drawing No 163-002 Rev 4 The S200 pipe overpack is constructed and assembled in accordance with Packaging Technology Inc., Drawing No 163-003, Rev 3. The S300 pipe overpack is constructed and assembled in accordance with Packaging Technology, Inc., Drawing No. 163-004, Sheet 1, Rev 1. The compacted puck drum spacers needed for the purpose of maintaining subcriticality in 55-, 85-, and 100-gallon drums are constructed and assembled in accordance with Drawing No 163-006, Rev. 0.

(b) Contents

(1) Type and form of material

Dewatered, solid or solidified transuranic and tritium-contaminated materials and wastes. Materials must be packaged in one of the following payload containers: a 55-gallon drum, an 85-gallon drum, a 100-gallon drum, a standard waste box (SWB), a standard pipe overpack, an S100 pipe overpack, an S200 pipe overpack, an S300 pipe overpack, or ten-drum overpack (TDOP). The payload containers are described in CH-TRAMPAC, Rev. 3, Section 2.9, "Payload Container/Assembly Configuration Specifications." Materials must be restricted to prohibit explosives, corrosives, nonradioactive pyrophorics and pressurized containers. Within a payload container, radioactive pyrophorics must not exceed 1 percent by weight, and free liquids must not exceed 1 percent by volume. Flammable organics and methane are limited along with hydrogen to ensure the absence of flammable gas mixtures in TRU waste payloads as described in Chapter 5.0 of CH-TRAMPAC, Rev. 3. For payloads of content code LA 154 and SQ 154, the absence of flammable gas mixtures is ensured as described in Appendix 6.12 of the CH-TRU Payload Appendices, Rev. 2. For payload configurations with unvented heat-sealed bag layers, the absence of flammable gas mixtures is ensured as described in Appendix 6.13 of the CH-TRU Payload Appendices, Rev. 2. For Analytical Category 100 gallon drums containing 55 gallon puck drums, the absence of flammable gas mixtures is ensured as described in Appendix 6.14 of the CH-TRU Payload Appendices, Rev. 2.

(2) Maximum quantity of material per package

Contents not to exceed 7,265 pounds including shoring and secondary containers. The maximum gross weight for a payload container not to exceed the following:

(i) 1,000 pounds per 55-gallon drum,
(ii) 328 pounds per 6-inch standard pipe overpack,

5.(b)(2) Maximum quantity of material per package (continued)

(iii) 547 pounds per 12-inch standard pipe overpack.
(iv) 550 pounds per S100 pipe overpack.
(v) 547 pounds per S200 pipe overpack
(vi) 547 pounds per S300 pipe overpack.
(vii) 1,000 pounds per 85-gallon drum
(viii) 1,000 pounds per 100-gallon drum
(ix) 4,000 pounds per SWB or
(x) 6 700 pounds per TDOP

Maximum number of payload containers per package and authorized packaging configurations are as follows:

(i) 14 55-gallon drums,
(ii) 14 standard pipe overpacks.
(iii) 14 S100 pipe overpacks,
(iv) 14 S200 pipe overpacks,
(v) 14 S300 pipe overpacks,
(vi) 8 85-gallon drums,
(vii) 6 100-gallon drums,
(viii) 2 SWBs, or
(ix) 1 TDOP.

Fissile material not to exceed the limits specified in CH-TRAMPAC, Rev. 3, Section 3.1, "Nuclear Criticality."

The S100, S200, and S300 pipe overpack payloads shall meet the curie limits specified in CH-TRAMPAC, Rev. 3, Section 3.3, "Activity Limits." The payload is limited to 10^5 A_2 quantities.

Maximum decay heat per package not to exceed 40 watts. Decay heat per payload container not to exceed the values given in CH-TRAMPAC, Rev. 3, Table 5.2-1, "List of Approved Alpha-numeric Shipping Categories, Maximum Allowable Hydrogen Gas Generation Rates, and Maximum Allowable Wattages," or calculated for approved shipping categories in accordance with the methodology specified in Section 5.2.3 of CH-TRAMPAC, Rev. 3. For content code LA 154 and SQ 154 payloads, decay heat per payload container not to exceed the values specified in Appendix 6.12 of CH-TRU Payload Appendices.

5.(c) Criticality Safety Index: 0.0

6 Physical form, chemical properties, chemical compatibility, configuration of waste containers and contents, isotopic inventory, fissile content, decay heat, weight, center of gravity, and radiation dose rate must be determined and limited in accordance with CH-TRAMPAC, Rev. 3.

7 Each payload container must be assigned to a shipping category in accordance with CH-TRAMPAC Rev 3, Section 5 1, "Payload Shipping Category " For a payload assembly made up of payload containers with the same shipping categories, each payload container and payload assembly must not exceed the allowable wattage in accordance with CH-TRAMPAC, Rev 3, Section 5.2.3, "Hydrogen Gas Generation Rate and Decay Heat Limits for analytical category" or must be tested for gas generation in accordance with CH-TRAMPAC, Rev 3, Section 5.2.5, "Unified Flammable Gas Test Procedure " For a payload made up of payload containers with different (nonequivalent) shipping categories, the flammability index of each payload container must not exceed 50,000 in accordance with CH-TRAMPAC, Rev 3, Section 6.2 4, "Mixing of Shipping Categories," and Appendix 2.4 of the CH-TRU Payload Appendices, "Mixing of Shipping Categories and Determination of the Flammability Index " For Analytical Category 100 gallon drums containing 55 gallon puck drums, the absence of flammable gas mixtures is ensured as described in Appendix 6 14 of the CH-TRU Payload Appendices, Rev. 2. Each content code LA 154 and SQ 154 payload container must be assigned to a shipping category in accordance with Appendix 6.12 of CH-TRU Payload Appendices. Content code LA 154 and SQ 154 payload containers may only be assembled with other payload containers belonging to content code LA 154 and SQ 154, respectively, or dunnage in accordance with Appendix 6.12 of CH-TRU Payload Appendices. For a payload of content code LA 154 or SQ 154 containers with different shipping categories, the flammability index of each payload container must not exceed 50,000 in accordance with Appendix 6.12 of CH-TRU Payload Appendices.

8. Payload containers within a package shall be selected in accordance with CH-TRAMPAC, Rev. 3, Section 6.0, "Payload Assembly Requirements." Payload containers of content code LA 154 and SQ 154 shall be assembled in accordance with Appendix 6.12 of CH-TRU Payload Appendices, Rev. 2.

9 Each payload container must be vented in accordance with Section 2.5, "Filter Vents," of the CH-TRAMPAC, Rev. 3. Drums which were not equipped with filtered vents during storage must be aspirated in accordance with CH-TRAMPAC, Rev. 3 Section 5.3, "Venting and Aspiration."

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. The shipping period for any mode of transport is not to exceed 60 days. For content code LA 154 and SQ 154 shipments, the shipping period as defined in Appendix 6.12 of the CH-TRU Payload Appendices is not to exceed 5 and 10 days, respectively.

11 In addition to the requirements of Subpart G of 10 CFR Part 71:

(a) Each package must be prepared for shipment and operated in accordance with the procedures described in Chapter 7.0, "Operating Procedures," of the application, as supplemented. For content code LA 154 and SQ 154 payloads, each package must be prepared for shipment and operated in accordance with the procedures described in Chapter 7 0 of the application, as modified by Appendix 6.12 of CH-TRU Payload Appendices

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9218	20	71-9218	USA/9218/B(U)F-96	5	OF	5

11 In addition to the requirements of Subpart G of 10 CFR Part 71 (continued)

b Each package must be tested and maintained in accordance with the procedures described in Chapter 8.0, "Acceptance Tests and Maintenance Program " of the application, as supplemented

c All free standing water must be removed from the inner containment vessel cavity and the outer containment vessel cavity before shipment

12 The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.

13 Revision No. 19 of this certificate may be used until August 31, 2010.

14 Expiration date: August 31, 2014.

REFERENCES

Washington TRU Solutions, LLC, application dated October 4, 2004.

Washington TRU Solutions, LLC, supplements dated March 4, June 8, and August 19 2005; July 18, 2007; April 14, 2008; February 23, and July 21, 2009.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Eric J. Benner, Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Date: August 6, 2009

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT

Docket No. 71-9218
Model No. TRUPACT-II Package
Certificate of Compliance No. 9218
Revision No. 20

SUMMARY

By application dated July 21, 2009, Washington TRU Solutions LLC, on behalf of the Department of Energy (applicant) requested renewal of Certificate of Compliance No. 9218 for the Model No. TRUPACT-II package. The applicant did not request any changes to the package design or authorized contents. The certificate has been renewed for a five year term.

EVALUATION

By application dated July 21, 2009, the applicant requested renewal of Certificate of Compliance No. 9218, for the Model No. TRUPACT-II package. The applicant did not request any changes to the package design or authorized contents. The staff reviewed the documents referenced in the certificate and determined that the documentation was available and complete. The staff also reviewed the operating and maintenance procedures for the package and found them to be adequate.

The following changes have been made to the Certificate:

Condition 13 was changed to allow Revision No. 19 to be used for one year.

Condition 14 was changed to reflect the new expiration date.

CONCLUSION

The certificate has been renewed for a five year term that expires on August 31, 2014. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9218, Revision No. 20 on
August 6, 2009.