



**Department of Energy**  
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**JAN 21 2009**

Mr. Jonathan Edwards, Acting Director  
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Subject: Self-Certification of the Shielded Container to Department of Transportation (DOT) Requirements

Dear Mr. Edwards:

This letter responds to questions raised by your staff regarding the regulatory basis and compliance status of the self-certification of shielded containers by the U.S. Department of Energy (DOE).

Regulatory Basis for Self-Certification by DOE

The definition of a Type A Package provides the regulatory basis for self-certification of the shielded container by DOE. The definition of a Type A Package in 49 CFR 173.403 states that Competent Authority approval for this type of package is not required:

*"Type A package" means a packaging that, together with its radioactive contents limited to A1 or A2 as appropriate, meets the requirements of §§173.410 and 173.412 and is designed to retain the integrity of containment and shielding required by this part under normal conditions of transport as demonstrated by the tests set forth in §173.465 or §173.466, as appropriate. A Type A package does not require Competent Authority approval." (Underline has been added).*

All shipments of payload containers to the Waste Isolation Pilot Plant (WIPP), including shielded containers, are transported inside Type B packages. The U.S. Nuclear Regulatory Commission (NRC) must certify each Type B package and its payload containers for shipping purposes. The NRC is in the process of considering the shielded container as a payload container inside the TRUPACT-II and HalfPACT Type B packages for certification purposes. The DOE's self-certification of the shielded container and the NRC's Certificate of Compliance for the shielded container as a certified payload container complete the certification requirements for the shielded container.

Requirements for Self-Certification by DOE

The Transuranic Waste Acceptance Criteria (WAC) for the Waste Isolation Pilot Plant defines the requirement that payload containers meet DOT Specification 7A Type A

packaging requirements. In particular, the WAC imposes the performance testing requirements outlined in 49 CFR 173.465 to maintain Type A payload container integrity during operations and handling. The WAC also imposes the broader requirements outlined in 49 CFR 178.350.

#### Demonstration of Performance Relative to 49 CFR 173.465

The Shielded Container Type A Evaluation Report (TAER) documents the testing that demonstrates that the design of the shielded container (without radioactive contents) meets the applicable DOT 7A Type A requirements in 49 CFR 173.465. DOE submitted the TAER as part of the Shielded Container Planned Change Request in a letter to you from Dr. Moody dated October 29, 2008. The TAER, a copy of which is enclosed, represents DOE's self-certification that the design of the shield container packaging meets the performance requirements in 49 CFR 173.465.

#### Demonstration of Performance Relative to 49 CFR 178.350

A Type A package is defined in 49 CFR 173.403 as the packaging together with its radioactive contents. It follows that certification to the requirements of 49 CFR 178.350 is for the total package (i.e., the packaging together with its radioactive contents), not just the packaging itself. In this situation, self-certification must involve actions by the package designer and the shipper. The designer of the shielded container cannot certify that the shielded container and its authorized contents are assembled in accordance with all requirements established in 49 CFR 178.350 without input from the shippers/users (i.e., the sites that ship transuranic waste).

Table 4-1 in the TAER considers the broader requirements of 49 CFR 178.350. Table 4-1 evaluates all other applicable DOT 7A Type A packaging requirements that are met by the shielded container design, as well as those requirements that are the responsibility of the shipper/user. It is ultimately the responsibility of the shipper to certify that the as-shipped configuration of each shielded container package is in compliance with DOT 7A Type A requirements. These requirements are identified in Section 5.1 of the TAER, Restrictions/ Specifications, which include completion of the shipper-required elements of Attachment A, DOT 7A Type A Packaging Qualification Checklist.

#### Summary

The definition of a Type A Package provides the regulatory basis for self-certification of the shielded container by DOE. The enclosed TAER documents the testing that demonstrates the design of the shielded container (without radioactive contents) meets the applicable DOT 7A Type A requirements in 49 CFR 173.465. Table 4-1 in the TAER evaluates all other applicable DOT 7A Type A packaging requirements that are met by the shielded container, including those requirements that are the responsibility of the shipper/user.

Mr. Jonathan Edwards

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If you have any questions regarding the TAER, please contact Russ Patterson at 575-234-7457 or russ.patterson@wipp.ws.

Sincerely,



David C. Moody  
Manager

Enclosure

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