

From: [Garcia Santos, Norma](#)
To: [Boyle, Rick \(PHMSA\)](#)
Cc: [White, Bernie](#)
Subject: REQUEST: F-522--Incomplete application
Date: Tuesday, June 28, 2022 10:05:00 AM
Attachments: [External_Sender RE REQUEST--Follow UP F-522 - Application with change bars.msg](#)

Good morning,

Based on an initial administrative and initial acceptance review of the application. I want to notify you that the application for the revalidation review is currently incomplete because there are some documents and information missing from the submittal.

I also want to follow up with on the requests I sent to you and also provide initial feedback from the staff related to the structural evaluation. The previous requests that I am seeking an update on are the following:

1. Submittal of the application documents with change bars
2. Submittals of the following documents:
 - a. Redacted version of IS-TR 2650_Engineering Assessment of the Ability of the F-522 Family of Type B Packages to Meet IAEA SSR-6, 2012
 - b. Proprietary version of IS-QA 2663Z000_Radioactive Material Transport Package Quality Assurance Plan

I also want to note that I received initial input on the application from the structural reviewer on the application documents received by NRC:

- **Missing Lifting-Test Results** - Appendix 11.2, "Lifting Test Report," of the IS/TR 2650 F522 Report provides the testing results for the UK-201 packaging type (i.e., the previously validated shielding vessel design). However, no lifting test report was included in the application for the newly proposed F-528 packaging type. This information is needed to verify that the actual lifting forces are within the values estimated for the design of the lifting devices (similarly to what was provided for the UK-201 packaging type).
- **Missing Penetration Test Evaluation** - Appendix 11.3, "Penetration Test," of IS/TR 2650 F522 Report evaluates the damage to the F-522/UK-201 package from a penetrations test. However, this evaluation does not address how changes from the proposed F-528 shielding vessel type (e.g., 20% weight increase, other parameters), were considered to demonstrate that no significant damage from the penetration test will occur to the F-522 overpack.
- **Missing Tie-Down Test Results** - Section 3 of Appendix 11.4, "Tie-Down testing," states that "similar performance is expected from the F-522/F-528 configuration. This will be demonstrated with a full scale test with an applied load of at least 1219 kg." However, the full scale tie-down test was not included in the application. It was noted that the tie-down test report is missing from Appendix 11.4.2 of the IS/TR 2650 F522 Report. This section was added as a place holder, but never was updated with the test results.
- **Missing Drop Test Results** - Section 3 of Appendix 19, "Justification of the F-522/F-528 Package Configuration," states that the "significant difference [between the proposed F-528 shielding vessel with contents, and the UK-201 shielding vessel with contents] will be assessed with a full scale drop test in accordance with a plan approved by the CNSC." However, the full scale drop test demonstrating that the package and its content (including the top plug/screws) remained intact and leaktight

was not included in the application. It was noted that the drop test results are missing from Addendum A19.4 of the IS/TR 2650 F522 Report. This section was added as a place holder, but never was updated with the test results.

The staff is still reviewing the information provided in the application as part of the acceptance review.

Please contact me if you have questions about this request.

Thanks in advance,

Norma Garcia Santos

Project Manager

Storage and Transportation Licensing Branch

Division of Fuel Management

Office of Nuclear Material Safety
and Safeguards