

Norma Garcia Santos

From: Boyle, Rick (PHMSA) <rick.boyle@dot.gov>
Sent: Wednesday, June 29, 2022 11:34 AM
To: Garcia Santos, Norma
Subject: [External_Sender] RE: FW: FW: REQUEST: F-522--Incomplete application

Categories: Holiday or Tradition

Thanks.

Rick Boyle

Chief, Radioactive Materials Transport

USDOT, PHMSA
1200 New Jersey Avenue SE, Washington, DC, 20590
Office: 202.366.2993 ♦ Mobile: 202.697.1301

From: Garcia Santos, Norma <Norma.GarciaSantos@nrc.gov>
Sent: Wednesday, June 29, 2022 11:29 AM
To: Boyle, Rick (PHMSA) <rick.boyle@dot.gov>
Cc: White, Bernie <Bernard.White@nrc.gov>
Subject: RE: FW: FW: REQUEST: F-522--Incomplete application

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

Please see the responses in red font below. I included additional information to facilitate the process.

I appreciate all your efforts.

Please email me if any questions.

Thanks in advance,
Norma

From: Boyle, Rick (PHMSA) <rick.boyle@dot.gov>
Sent: Wednesday, June 29, 2022 11:06 AM
To: Garcia Santos, Norma <Norma.GarciaSantos@nrc.gov>
Cc: White, Bernie <Bernard.White@nrc.gov>
Subject: [External_Sender] FW: FW: REQUEST: F-522--Incomplete application

Good morning Norma,

Since Mike transmitted these documents, I wanted to confirm needed dated.

- Is track changes version of IS/TR 2650 F522, "Engineering Assessment of the Ability of the F-522/UK-201 Type B Package to Meet IAEA SSR-6, 2012 Edition" from Version 5 to Version 8 acceptable? **Yes. The staff will review them and let me know if additional information will be needed.** If these are BWXT did not offer additional

documents with change bars. Even though there is not a regulatory requirement, submitting all the documents that were changed with change bars will be helpful for the staff to focus the time on the changes to the documents. Especially at this time that there are limitations on staff's availability.

Ideally, a document with change bars from the lasted documents related to the latest approval is the most efficient way to perform the review. The NRC revalidated Rev. 2 of this package in 2020.

- BWXT implies that latest versions of IS/QA 2663 Z000 (3) and IS/DS 2651 F522 (7) have been submitted. Is that valid and is NRC requesting PROPRIETARY version and REDACTED version respectively? Based on the information that I received by email or through the DOT portal, I do not have the latest versions of IS/QA 2663 Z000 (3) and IS/DS 2651 F522 (7).

Thanks for your help and patience. Bernie can confirm that I am no Mike Conroy.

Rick Boyle

Chief, Radioactive Materials Transport

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From: Lacasse, Shannon <slacasse@bwxt.com>

Sent: Wednesday, June 29, 2022 10:45 AM

To: Boyle, Rick (PHMSA) <rick.boyle@dot.gov>

Cc: White, Bernie <Bernard.White@nrc.gov>; Garcia Santos, Norma <Norma.GarciaSantos@nrc.gov>; Sumrall, Matthew (PHMSA) <matthew.sumrall@dot.gov>; Mahilrajan, Tim <tmahilrajan@bwxt.com>; Dorzek, Mike <mdorzek@bwxt.com>

Subject: RE: FW: REQUEST: F-522--Incomplete application

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Rick,

I have a track changes version of IS/TR 2650 F522, "Engineering Assessment of the Ability of the F-522/UK-201 Type B Package to Meet IAEA SSR-6, 2012 Edition" from Version 5 to Version 8 ready. Was it just that document? I believe you already had the latest versions of IS/QA 2663 Z000 (3) and IS/DS 2651 F522 (7).

I tried the previous secure link provided by Mike, but it did not work. Could you send me another secure link to upload the documents?

Thank you.

Shannon

Shannon Lacasse, P.Eng

Sr. EHS Compliance Specialist

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From: Boyle, Rick (PHMSA) <rick.boyle@dot.gov>
Sent: Wednesday, June 29, 2022 10:16 AM
To: Lacasse, Shannon <slacasse@bwxt.com>
Cc: White, Bernie <Bernard.White@nrc.gov>; Garcia Santos, Norma <Norma.GarciaSantos@nrc.gov>; Sumrall, Matthew (PHMSA) <matthew.sumrall@dot.gov>; Mahilrajan, Tim <tmahilrajan@bwxt.com>; Dorzek, Mike <mdorzek@bwxt.com>
Subject: EXTERNAL: FW: REQUEST: F-522--Incomplete application

Good morning Shannon (or at least it was until you received this). NRC is completing their acceptance review and needs additional documentation submitted and noted some missing test results/documentation. I am still learning the ways of Mike Conroy and the NRC but I believe your response can be submitted in pieces. May I suggest the change bar documents and redacted/proprietary documents be submitted as soon as practical (so NRC review can continue promptly) and missing test reports/documentation may come a bit later. You are certainly free to submit them in a single response if that works better for you.

Please let me know if you have any questions or need any additional information.

Rick Boyle

Chief, Radioactive Materials Transport

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From: Garcia Santos, Norma <Norma.GarciaSantos@nrc.gov>
Sent: Tuesday, June 28, 2022 10:05 AM
To: Boyle, Rick (PHMSA) <rick.boyle@dot.gov>
Cc: White, Bernie <Bernard.White@nrc.gov>
Subject: REQUEST: F-522--Incomplete application

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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

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