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January 10, 2019
E-52931 Revision 01

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Subject: Application for Revision to Certificate of Compliance for
USA/9291/B(U)F-96 for the Model No. LR Transport Unit

- References: [1] CHT Letter, dated May 20, 2018, Application for revision of
Certificate of Compliance No. 9291 for the Model No. Liqui-Rad
(LR) Transportation Unit Package, Docket No. 71-9291.
- [2] Letter dated September 17, 2018 from Mr. David D. Brown (U.S.
Nuclear Regulatory Commission) to Mr. Jim McCann
(Columbiana Hi Tech LLC), Application for Amendment of
Certificate of Compliance No. 9291 for the Model No. Liqui-Rad
Transportation Unit - Request for Additional Information.
- [3] NRC Certificate of Compliance No. 9291 for the Model No.
Liqui-Rad (LR) Transportation Unit Package, Docket No.
71-9291, Revision 10 dated September 24, 2018.

Dear Mr. White:

This supplement to the application for change to the packaging design [1] provides responses to request for additional information (RAI) [2]. Responses to RAI are provided as Enclosure 1. Pages affected by this supplement are summarized in Enclosure 2 and consolidated into the application as provided in Enclosure 2 and 3.

The Certificate of Compliance (CoC) Liqui-Rad (LR) Transportation Unit Package [3] expires July 31, 2019. TN Americas LLC requests a review of the responses and issuance of Revision 11 to address the application and renewal of the CoC to extend expiration date five years from the date of issuance. A consolidated application is submitted with this supplement. Renewal of the CoC with this consolidated application including changes incorporated by reference in the existing certificate minimizes the burden on the applicant and cost resulting from a renewal request within 12 months of this application.

Should you or your staff have any questions or require additional information to support review of this application, please contact Mr. Peter Vescovi by telephone at 336 420-8325, or by e-mail at Peter.Vescovi@orano.group.

Sincerely,



Digitally signed by EDWARDS William
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cn=EDWARDS William
Date: 2019.01.11 14:31:29 -08'00'

W. Scott Edwards
Director of Transportation
TN Americas LLC

Enclosures:

- (1) RAI Responses
- (2) Changed Pages for LR Transportation Packaging SAR
- (3) Consolidated LR Transportation Packaging SAR (PUBLIC)
- (4) Consolidated LR Transportation Packaging SAR (SUNSI)

Electronic Information Exchange (EIE) Document Components:

- 001 E-52912 (Revision 1)Transmittal Letter.doc
- 002 Liqui-Rad SAR (PUBLIC) Rev 9.pdf 003
- 003 Liqui-Rad SAR (SUNSI) Rev 9.pdf

cc: Bernard White, Senior Project Manager, U.S. Nuclear Regulatory Commission
Glenn Mathues, Licensing Engineer, Orano TN Americas
Peter Vescovi, Project Engineer, Orano TN Americas
Don Shaw, Licensing Manager, Orano TN Americas

Enclosure 1 to E-52931

RAI Responses

RAI 1-1:

Revise SAR Section 1.2.2, "Operational Features," to state the correct total number of bolts on the containment boundary primary and secondary lids. In proposed Revision 9 to the Safety Analysis Report (SAR) for the Liqui-Rad Transport Unit submitted on May 30, 2018, the certificate holder revised SAR Section 1.2.2, "Operational Features," item iii.), to state the primary operational features of the LR include, "A total of thirty-two (32) 5/8" diameter studs/bolts and nuts to provide positive closure of the primary lid and secondary lid." However, this is contrary to statements in the following SAR sections, which state twenty-eight (28) studs/bolts and nuts provide closure of the primary and secondary lid: Section 1.2.1.1, "Overall Construction"; Section 1.2.1.5, "Closures"; Appendix 1.3.1, which contains Drawing Number LR-SAR; Section 2.4.3, "Positive Closure"; Table 2-1, "Liqui-Rad Summary of the Structural Evaluation, Design Criteria, and Results of the Evaluation"; and Section 4.1.4, "Closure."

This information is required to determine compliance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 71.43(c) and 71.51(a)(1) and (2). TN International Revised Response to RSI 1-1

RESPONSE TO RAI 1-1:

There are 16 studs with bolts used for closure of the primary lid, and 12 studs/bolts used for closure of the secondary lid. Both lid seals are part of the containment boundary for a total of twenty-eight studs/bolts and nuts providing positive closure of the primary and secondary lids. SAR Section 1.2.2 has been updated to reflect this information.

Application Impact:

SAR Section 1.2.2 has been revised as described in the response.

RAI 7-1:

Clarify SAR Section 7.1.2, "Loading of Contents and Securing the Package for Shipment," to explain how the containment boundary primary lid is properly secured to the appropriate torque values if tamper-indicating devices are not present. Section 7.1.2 of the SAR describes torque values for the secondary lid closure bolts, but Section 7.1.2 of the SAR does not describe how the containment boundary primary lid is properly secured and torque values are verified if tamper-indicating devices are not present. Staff acknowledges that Section 4.2.3, "Containment Criterion," of the SAR states: "The primary lid is usually only operated during periodic testing and maintenance activities; therefore, it has been fitted with loops to secure tamper-indicating devices. The devices are intended to indicate to the User whether or not the lid has been operated in the time since the last periodic test." In the unusual event that the primary lid has been operated within 12 months since the last periodic leakage rate test, the securing of the primary lid with appropriate torque values should be described in Section 7.1.2 of the SAR.

This information is required to determine compliance with the requirements of 10 CFR 71.43(c) and 71.51(a)(1) and (2).

RESPONSE TO RAI 7-1:

In the event that the tamper indicating seals are not present on the primary lid, then the maintenance activity for the primary lid including leak testing and installation of tamper indicating seals is required to be performed.

SAR Section 7.1.2 revised to require maintenance activity to reinstall the primary lid as described in Section 8.2 (h). The maintenance activity step 8.2(h) is revised to add the step to install the tamper indicating seals after successful completion of the leak test.

Application Impact:

SAR Section 8.2 has been revised as described in the response.

RAI 7-2:

Clarify if it is necessary to revise SAR Section 7.1.1, "Pre-loading inspection," subparagraph b., and SAR Section 8.2, "Maintenance Programs," sub-paragraph b. to conform to the certificate holder's proposed changes in Rev. 9 of the SAR regarding the torque specification for the MVE lid. Both SAR Section 7.1.1, "Pre-loading inspection," sub-paragraph b. and SAR Section 8.2, "Maintenance Programs," sub-paragraph b. state, "After verification, replace the MVE lid and torque the bolts to 75 ft-lbs [+10 -0]." However, in its May 30, 2018, request, the certificate holder proposed changes to SAR Section 7.4, "Use of the MVE Feature," sub-paragraphs b. and c. to state, "All MVE lid bolts shall be tightened to 30 [+10 -0] ft.-lbs." It is not clear from the amendment request justification for changing torque requirements if conforming changes to SAR Sections 7.1.1 and 8.2 are necessary to approve the certificate holder's requested change to SAR Section 7.4.

This information is required to determine compliance with the requirements of 10 CFR 71.43(d).

RESPONSE TO RAI 7-2:

The manual vent enclosure (MVE) lid torque specified in SAR Section 7.1.1(b) and 8.2(b) should be the same as described in SAR Section 7.4.

SAR Section 7.1.1(b) and 8.2(b) revised to require tightening of MVE lid bolts to 30 [+10 -0] ft.-lbs.

Application Impact:

SAR Section 7.1.1 has been revised as described in the response.

Enclosure 2 to E-52931

Changed Pages for LR Transportation Packaging SAR

Changed Pages for LR Transportation Packaging SAR

Chapter/Appendix/Section	Description and Justification
Title Page	<p>Revised to show new revision and address of applicant.</p> <p>Certificate holder changed from Columbiana Hi Tech to TN Americas, LLC with CoC revision 10.</p>
Chapter 1	General Information
<p>Sections 1.1, 1.2.1.1, 1.2.1.5, 1.2.2, 1.3.1 (pages 1-1 through 1-4)</p>	<p>Edits to clarify the operational features of the LR Transportation Package, in particular the description and function of the outer lid and MVE lid.</p>
<p>Drawing Number LR-SAR, Sheet 4.</p>	<p>Editorial edits to correct spelling error in Note 4.</p>
Chapter 7	Operating Procedures
<p>7.1.1, 7.1.2, 7.3 (pages 7-1 through 7-3)</p>	<p>7.1.1(b) Change MVE lid bolt torque from 75 ft-lbs to 30 ft-lbs.</p> <p>7.1.2 (a) – (f) Chnages to specify closure procedures for secondary lid and add requirement to perform maintenance activity to check primary lid closure including installing tamper indicating seals in event these are found to be missing during routine operation.</p>
Chapter 8	Acceptance Tests and Maintenance Program
<p>8.2 (page 8-2)</p>	<p>8.2(b) Change MVE lid bolt torque from 75 ft-lbs to 30 ft-lbs.</p> <p>8.2(h) Added requirement to install tamper indicating seals on primary lid after inspection and leak test.</p>