



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

September 17, 2018

Mr. Jim McCann, President
Columbiana Hi Tech LLC
1621 Old Greensboro Road
Kernersville, NC 27284

SUBJECT: APPLICATION FOR AMENDMENT OF CERTIFICATE OF COMPLIANCE
NO. 9291 FOR THE MODEL NO. LIQUI-RAD TRANSPORT UNIT PACKAGE –
REQUEST FOR ADDITIONAL INFORMATION

Dear Mr. McCann:

By letter dated May 30, 2018, to the U.S. Nuclear Regulatory Commission (NRC),
Columbiana Hi Tech LLC submitted an application for amendment of Certificate of Compliance
(CoC) No. 9291 for the Model No. Liqui-Rad Transport Unit Package.

The NRC staff has completed its initial review and requires the information described in
the enclosure to complete its review. Additional information requested in the enclosed request
for additional information should be submitted in the form of revised pages to the Safety
Analysis Report (SAR) for the Liqui-Rad Transport Unit.

If you have any questions regarding this matter, please contact me at (301) 415-7677.

Sincerely,

/RA/

David D. Brown, Sr. Project Manager
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9291
CAC/EPID 001029/L-2018-LLA-0160

Enclosure:
Request for Additional Information

SUBJECT: APPLICATION FOR AMENDMENT OF CERTIFICATE OF COMPLIANCE
 NO. 9291 FOR THE MODEL NO. LIQUI-RAD TRANSPORT UNIT PACKAGE –
 REQUEST FOR ADDITIONAL INFORMATION, DOCUMENT
 DATE: September 17, 2018

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ADAMS Accession No.: ML18227B424

***via e-mail**

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DATE	9/23/18	9/17/18		

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**Request for Additional Information
Columbiana Hi Tech LLC
Docket No. 71-9291
Certificate of Compliance No. 9291
Model No. Liqui-Rad Transport Unit Package**

By letter dated May 30, 2018, Columbiana Hi Tech LLC (Columbiana, or the certificate holder) requested an amendment to Certificate of Compliance No. 9291, for the Model No. Liqui-Rad Transport Unit Package (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML18156A428). By letter dated July 25, 2018, the NRC staff informed Columbiana that its request had been accepted for review (ADAMS Accession No. ML18206A311). This request for additional information describes information needed by the U.S. Nuclear Regulatory Commission staff to complete its review of the request.

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).

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).

Enclosure

RAI 7-2 Clarify if it is necessary to revise SAR Section 7.1.1, “Pre-loading inspection,” sub-paragraph 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).

Additional items

1. Consider correcting a spelling error of “removal” on SAR page 1-1
2. Consider correcting two instances of a spelling error of “equivalent” in Note 4 of Drawing Number LR-SAR, Sheet 4.