



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

June 8, 2021

Mr. Donnie James  
Shipping Technician, Radwaste/Shipping  
Entergy Operations Inc.  
Waterford 3 S.E.S.  
17265 River Rd.  
Killona, LA 70057

Reference No. 21-0036

Dear Mr. James:

This letter is in response to your April 8, 2021, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to marking requirements for bulk packages containing radioactive material. Specifically, you describe a scenario involving a bulk Type A package, containing a Type B quantity of “UN3321, Radioactive material, low specific activity (LSA-II) non-fissile or fissile-excepted, 7.” The material is shipped via ground transportation, in exclusive use.

We have paraphrased and answered your questions as follows:

- Q1. You ask whether the letters “RQ” are required to be marked on a bulk package that is not being shipped under the provisions of § 173.427. You provide “UN2916, Radioactive material, Type B(U) package, fissile-excepted, 7” as an example of a material that does not qualify for the provisions of § 173.427.
- A1. The answer is no. The letters “RQ” are generally not required to be marked on a bulk package, except as expressly directed by a specific provision of the HMR.
- Q2. You ask whether a Type A quantity shipped in a bulk package as LSA or Surface Contaminated Object (SCO) radioactive material, via domestic ground transport as an exclusive use shipment, must bear the “RQ” marking as required by § 173.427(a)(6)(vi).
- A2. The answer is yes, if the packaged or unpackaged LSA or SCO material contains a hazardous substance and utilizes the exception from the marking and labeling requirements provided in § 173.427(a)(6)(vi). In final rule HM-230 (69 FR 3631;

1/26/2004), the Research and Special Programs Administration, PHMSA's predecessor agency, stated that the intent of § 173.427(a)(6)(vi) is that all packages transported in accordance with this provision, regardless of capacity or weight, that contain a hazardous substance must bear the "RQ" marking.

- Q3. You ask whether the "Radioactive-LSA" or "Radioactive-SCO" and RQ marking requirements of § 173.427(a)(6)(vi) apply to LSA or SCO shipments of A<sub>2</sub> quantities or greater.
- A3. The answer is no, packages of LSA or SCO material that do not qualify for the § 173.427(a)(6)(vi) marking and labeling exception are not subject to the additional requirements found in this subparagraph. The requirements of § 173.427(a)(6)(vi)—including the requirement to mark the letters "RQ" on a package containing a hazardous substance—only apply to shipments that qualify for, and utilize, the marking and labeling exception described in this subparagraph. Please note that non-bulk packages of LSA or SCO material of A<sub>2</sub> quantities or greater that contain a hazardous substance must bear the RQ mark, in accordance with the general non-bulk package marking requirements in § 172.324.
- Q4. You ask whether the marking size requirements of § 172.302(b) apply to the RQ marking on a bulk package.
- A4. The answer is yes.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,



Dirk Der Kinderen  
Chief, Standards Development Branch  
Standards and Rulemaking Division

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#)  
**Cc:** [Hazmat Interps](#)  
**Subject:** FW: Request assistance submitting a request for a formal Letter of Interpretation.  
**Date:** Friday, April 9, 2021 9:29:47 AM  
**Attachments:** [LOI request RQ markings.docx](#)

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Hello Alice,

Please see the attached interpretation request.

Should you need anything, please do not hesitate to let us know.

Regards,

-Breanna

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**From:** James, Donald [mailto:djames7@entergy.com]  
**Sent:** Thursday, April 8, 2021 9:35 AM  
**To:** INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>  
**Subject:** Request assistance submitting a request for a formal Letter of Interpretation.

**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.

Dear Sir or Ma'am,

I have recently submitted a question about RQ markings on bulk packages.

I was telephoned with an answer that I found to be completely satisfactory, but my peers have asked me to request a formal Letter of Interpretation.

I have attached a Microsoft Word document of the request, but I'm not 100% sure how to go about submitting a request for interpretation.

Would you be so kind as to look this over and see if the format and wording are acceptable?

If it is not, would you please tell me what could be done better?

If it is, would you please direct me through the next step for submitting the request?

Your help is greatly appreciated.

Donnie James  
Shipping Technician  
Radwaste/Shipping  
Waterford 3 S.E.S.  
504-464-3379

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notify me immediately by e-mail, discard any paper copies and delete all electronic files of this message.

Dear Sir or Ma'am,

I am respectfully requesting an official Letter of Interpretation.

Recently we were trying to determine if an RQ marking on a bulk package is subject to the size requirements of 49CFR172.302(b)(3). It was in association with a shielded cask with 133 cu ft capacity, a USA DOT TYPE A specification cask with a Type B quantity of material shipping as UN3321 Radioactive Material, Low Specific Activity (LSA-II) Fissile Excepted, via domestic ground transport, Exclusive Use.

My understanding is:

Per 49CFR173.427(a)(6)(vi), this is not excepted from marking and labeling requirements of subchapter C, Hazardous Materials Regulations due to being greater than a Type A quantity.

The Type A DOT Specification markings must be at least 0.47 inches high per §178.3(a)(4),

The Identification Number markings will meet the Orange Panel requirements per §172.332(b), and

All other required markings must be 2.0 inches high with a width of 0.24 inches per §172.302(b)(3).

We reached out to our peers and the vendor that does our DOT training, and the consensus was that the 2.0 inch size requirement for Bulk Packaging markings did not apply to the RQ, but we could not find a written exception within the regulations or in an existing Letter of Interpretation. In our research, we could not find in the regulations where a RQ marking is required for a bulk package. §172.324(b) requires an RQ marking for non-bulk packages containing a Hazardous Substance, and Subpart D, Appendix A, II, List of Frequently Cited Violations under D. Package Marking Requirements there is a "12. Failure to apply limited quantity markings or RQ marking on a non-bulk package containing a hazardous substance" without listing a violation for failure to exhibit RQ on a bulk package. The violation description citations for "15. Failure to properly mark a bulk container" (172.331, 334, 336, and 338) do not appear to address RQ markings.

I am officially requesting an official interpretation of the following:

- Q1. Is an RQ marking required on Bulk Packages with a Class 7 Hazardous Substance that is NOT being shipped under the exceptions of 49CFR173.427 (for example, a bulk package of UN2916 Radioactive Material, Type B(U) package, Fissile Excepted)?
- Q2. In the case of a Type A quantity of radioactive material being shipped LSA or SCO, via domestic ground transport as an exclusive use shipment, would the RQ marking be required per 49CFR173.427(a)(6)(vi) if shipped in a Bulk Package?
- Q3. 49CFR173.127(a)(6)(vi) has the exemption from marking requirements for marking Radioactive-LSA (or SCO) and specifies the use of "RQ" but is specific to <math>A\_2</math> quantities. Do the Radioactive-LSA (or SCO) and RQ marking requirements of this paragraph apply to LSA or SCO shipments of <math>A\_2</math> quantities or greater?
- Q4. If an RQ marking is required on a Bulk Package, do the marking size requirements of 49CFR172.302(b) apply to the RQ marking on Bulk Packages?

Thank you for your time and effort

Donnie James, Shipping Technician, Radwaste/Shipping  
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