U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

March 31, 2025

Richard Eastman
Counselor at Law
Eastman Law
201 Spear Street, Suite 1100
San Francisco, CA 94105

Reference No. 24-0127

Dear Mr. Eastman:

This letter is in response to your December 18, 2024 email and subsequent email correspondence requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the transportation of radioactive materials aboard a passenger-carrying aircraft. As described in your email, your client would like to offer radioactive material contained inside an industrial gauge that is used to measure the depth and density of pavement materials during road construction. Specifically, you ask whether this radioactive material described and classified as "UN3332, Radioactive material, Type A package, special form *non fissile* or *fissile-excepted*, 7" may be transported on a passenger-carrying aircraft.

No. Except as provided in §§ 173.4a, 173.422 and 173.423, a Type A package may only be carried on a passenger-carrying aircraft if it is intended for use in, or incident to, "research" as defined in § 171.8,[1] medical diagnosis, or treatment—see § 175.700(a). The measurement of pavement material during road construction is an industrial activity and is not considered research, medical diagnosis, or treatment for purposes of the HMR. Additionally, your package does not appear to meet the exceptions in §§ 173.4a, 173.422, and 173.423. Therefore, this material is not permitted for transportation on a passenger-carrying aircraft.

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

[1] *Research* means investigation or experimentation aimed at the discovery of new theories or laws and the discovery and interpretation of facts or revision of accepted theories or laws in the light of new facts. Research does not include the application of existing technology to industrial endeavors.

Patrick

24-0127

From: INFOCNTR (PHMSA)
To: Dodd, Alice (PHMSA)
Cc: Hazmat Interps
Subject: FW: Question re 49 CFR 175.75 and 49 175.700
Date: Thursday, December 19, 2024 4:19:23 PM

Hi Alice,

Please see the below interpretation request and the supporting attachments.

Let me know if you need anything,

-Breanna

From: richard.eastman@eastmanlawsf.com <richard.eastman@eastmanlawsf.com>
Sent: Wednesday, December 18, 2024 2:18 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: PHMSA HM InfoCenter <PHMSAHMInfoCenter@dot.gov>
Subject: Question re 49 CFR 175.75 and 49 175.700

Ladies and gentlemen

I have a question of interpretation of 49 CFR 175.75 (b) (2) and 49 175.700 (c) which I just discussed with Breanna by telephone.

For background, the specific item which gives rise to the question is a nuclear gauge, details of which are:

> RQ, UN3332, Radioactive Materials TYPE A
> Package Special Form, 7,
> Non-Fissile or Fissile Excepted,
> Cesium-137 0.37GBq(10 mCi); Americium-241/Beryllium 1.48GBq(40mCi)
> YELLOW II TRANSPORT INDEX -- 0.2

For shipment, the gauge would be contained in a packing case provided by the manufacturer Hamilton. See attached photo.

The gauge is only one of several stranded on the island of Guam because no carrier will accept them for shipment to the United States (or anyplace else for that matter). My client has been trying to ship it out since 2019.

49 CFR 175 (b) (2) reads:

> (2) Hazardous materials may be carried in a main deck cargo compartment of a

passenger aircraft provided that the compartment is inaccessible to passengers and that it meets all certification requirements for: a Class B aircraft cargo compartment in 14 CFR 25.857(b); or a Class C aircraft cargo compartment in 14 CFR 25.857(c).

49 CFR 175.700 © reads:

> (c) For each package containing a hazardous material acceptable for carriage aboard passenger-carrying aircraft, no more than 25 kg (55 pounds) net weight of hazardous material may be loaded in an inaccessible manner. In addition to the 25 kg limitation, an additional 75 kg (165 pounds) net weight of Division 2.2 (non-flammable compressed gas) may be loaded in an inaccessible manner. The requirements of this paragraph (c) do not apply to Class 9, articles of Identification Numbers UN0012, UN0014, or UN0055 also meeting the requirements of § 173.63(b) of this subchapter, articles of Identification Numbers UN3528 or UN3529, and Limited or Excepted Quantity material.

In my conversation with Breanna, she pointed out to me 49 CFR 175.75 (b) (1), which reads

1. Except as otherwise provided in this subchapter, no person may carry a hazardous material in the cabin of a passenger-carrying aircraft or on the flight deck of any aircraft, and the hazardous material must be located in a place that is inaccessible to persons other than crew members.

However that section specifically applies only to the cabin and flight deck, not to cargo areas. I believe she also mentioned the latter part of 49 CFR 175.75 (b)(2). 14 CFR 25.857(b) and (c). These appear to set standards for the relevant cargo areas of aircraft. I confess I have not looked into that aspect. I had assumed most airline cargo areas would meet the standard. The only scheduled air carrier providing non-stop service between Guam and the United States is United Airlines.

It seems to me that read as a whole, the regulations mentioned above seem to mean that the gauge in question can be carried in the cargo deck of United Airline flights from Guam to Hawaii. However, as I mentioned to Breanna, a broker whom I have consulted disagrees, and he should know. In any event, I will appreciate confirmation of DOT's interpretation.

I thank you for your attention and look forward to hearing from you.

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