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

1200 New Jersey Ave., S.E.
Washington, DC 20590

JUN 12 2007

Mr. Larry Lucas
National Institute of Standards and Technology
100 Bureau Drive
Stop 8462
Gaithersburg, MD 20899-8462

Ref. No.: 07-0079

Dear Mr. Lucas:

This is in response to your April 20, 2007 letter regarding subsidiary labeling requirements under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if a subsidiary hazard label is required for a package the meets the definition of a Class 7 (Radioactive) material and also meets the definition of a Class 8 (Corrosive) material. The material in question is a solution of radioactive isotopes requiring a Class 7 hazard label (typically Yellow-II), and 5 milliliters (<1/5 ounce) of a Class 8 acid.

Section 172.402(d) requires each package containing a Class 7 (Radioactive) material that also meets the definition of one or more additional hazard classes to be labeled as a Class 7 (Radioactive) material, as required by § 172.403, and for each additional hazard. However, an exception from the subsidiary labeling requirement is provided in § 172.402(d)(1) when the material satisfies the requirements of § 173.4 (small quantity exception).

I hope this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

John A. Gale
Chief, Standards Development
Office of Hazardous Materials Standards

070079

172.402(d)
173.4

INFOCNTR <PHMSA>

From: Larry Lucas [larry.lucas@nist.gov]
Sent: Friday, April 20, 2007 6:00 PM
To: INFOCNTR <PHMSA>
Cc: Janna Shupe; Corey Hankerson; Roy Parker
Subject: Request for Written Letter of Interpretation

Eichenlaub
§172.101
§173.4
Labeling/Small Quantity Exception
07-0079

20 April 2007

Request for Written Letter of Interpretation

I talked with Chris on the HMR hotline yesterday and we both agreed that it would be a good idea for me to request a formal Written Letter of Interpretation because of the importance of this issue to many other people.

The situation is as follows:

My name is Larry Lucas and I am a Research Chemist at the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland. I have been the supervisor of production and distribution of the NIST radioactivity Standard Reference Materials (SRMs) for more than 10 years. By design, we try to make our radioactivity SRMs such that they can be shipped as Radioactive Material, Excepted Package - Limited Quantity of Material, UN2910 (henceforth referred to as RMEP).

The majority of our radioactivity SRMs are solutions, with the radioactive material dissolved in (typically) 5 milliliters (<1/5 ounce) of aqueous solution that also contains non-radioactive carrier and some acid (typically hydrochloric or nitric). The final concentration of the acid is always such that it is acceptable aboard passenger aircraft. The solution is contained in a flame-sealed glass ampoule surrounded by absorbent material and several layers of secondary containment within a protective cardboard tube. The cardboard tube is surrounded by cushioning material and contained in a UN4G fibreboard box as the outer container. All packages meet the Type-A performance specifications, regardless of the final labeling.

Most of the packages are shipped with two labels: one RMEP label for the radioactivity hazard and one label (either the IATA DGEQ label or the DOT 173.4 conformance statement) for the corrosive hazard. These package have never been an issue.

My question is about the packages we ship that (either because of the quantity of short-lived medical isotope contained or because of the dose rate) must be labeled with a Class 7 hazard label (typically II-Yellow). The question is about the proper declaration of the 5 milliliters (<1/5 ounce) of acid solution. It seems that the present regulations require that once a package must be labeled with a hazard label for any Class, then all other hazard classes must also have Class labels (and be declared as subsidiary risks) without regard to the quantity of material in that Class (even one drop). Thus, in the example above, the II-Yellow label must be accompanied by a Class 8 Corrosive label and the acid solution must be declared as a subsidiary risk (8).

This seems to be a gross overstatement of the risk associated with the small quantity of acid solution, especially since the containment and packaging are identical whether shipped with the RMEP and DGEQ labels or with the II-Yellow and Corrosive labels. Please clarify the meaning of the DOT regulations with regard to this issue and indicate if there are any other options.

Thank you and best regards,

Larry Lucas, Research Chemist
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