



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

OCT 3 2006

400 Seventh Street, S.W.
Washington, D.C. 20590

Mr. Stan Hodges
RWE NUKEM Corporation
3800 Fernandina Road
Suite 200
Columbia, SC 29210-3854

Ref. No.: 06-0190

Dear Mr. Hodges:

This is in response to your August 14, 2006 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if the total activity required to be entered on shipping papers for radioactive materials must include the activity of all radionuclides in the package, the activity of all parent radionuclides in the package, or only the activity of the radionuclides that are required to be listed on a shipping paper per § 172.203(d)(1).

Section 172.203(d)(3) requires the total activity contained in each package of the shipment to be included on the shipping paper. The activity required to be included on the shipping paper must be the sum of the activities of all radionuclides present in the package, including those of both parent radionuclides and daughter products.

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



060190

172.203(d)
173.433(g)

Drakeford, Carolyn <PHMSA>

Eichenlaub
§172.203
§173.433(g)
Shipping Papers / RAM
06-0190

From: Williams, James <PHMSA>
Sent: Tuesday, August 15, 2006 1:43 PM
To: Drakeford, Carolyn <PHMSA>
Subject: FW: Interpretation
Attachments: DOT - Mazzullo - A2 values & Activity Questions ltr dtd 020128.pdf; DOT - Mazzullo ltr dtd 020128.pdf

Interpretation Request

Jim Williams

-----Original Message-----

From: Stan Hodges [mailto:shodges@nukem.com]
Sent: Monday, August 14, 2006 5:37 PM
To: Williams, James <PHMSA>
Subject: Interpretation

Jim:

Back in 2002, I submitted the attached letter for review and interpretation (the first attachment is the actual letter that I submitted and the 2nd attachment is the document that I just scanned along with the fax cover page). For the life of me, I cannot find where I ever received a response - pls note that this letter was submitted before the latest revision to the regulations. I also searched the DOT HMR web site and I also could not find a response. I have a basic question that I would like to get answered as soon as possible.

1. 172.203(d)(3) requires that the activity contained in each package of the shipment in terms of appropriate SI units be included an additional entry relative the description of Class 7 (radioactive) material on the shipping papers. Here is my big question:

- A. Is this activity only the activity of the radionuclides that must be listed on the shipping papers per 173.433(g) as noted in 172.203(d)(1); or
- B. Is this activity what is required in A. above plus the applicable daughter products of these nuclides; or
- C. Is this activity the total activity of all parent radionuclides in the package [above and beyond those required to be listed in 173.433(g) or 172.203(d)(1)]; or
- D. Is this activity the total activity of all radionuclides in the package (including both parent and daughter products)?

Thanks in advance for your quick turnaround. I believe a lot of popular shipping programs only utilize the activity of the isotopes required to be listed on the shipping papers. Based on the direction that I received from a DOE client a while back, I have been including the total activity plus daughter products in secular equilibrium. For example, I have a shipment getting ready to go overseas that has approx. 1.2 Ci of activity - if we go by what is only required to be listed on the shipping papers, we would only need to have an activity of approx. 400 mCi required to be listed on the shipping papers.

Thanks in advance for your quick turnaround. I will also take a look at the ST-1 guidance that you provided to me to see what IAEA had to say about the topic.

Stan Hodges
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(M) 803-318-7493

8/17/2006