



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

1200 New Jersey Avenue, SE
Washington, DC 20590

SEP 07 2011

Mr. Sean Chapel
President
International Radiation Safety Consulting, Inc.
17 Norfolk Road
Holbrook, MA 02343

Ref. No.: 11-0163

Dear Mr. Chapel:

This responds to your July 12, 2011 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) applicable to the transportation of excepted packages for radioactive instruments and articles. Your questions are paraphrased and answered below.

Q1: You ask whether, under the requirements for excepted packages for radioactive instruments and articles and contamination control (see §§ 173.424(g) and 173.443(a)), a shipper may perform a wipe test on the instrument itself instead of the actual external surface of the package?

A1: Provided certain conditions are met, the answer is yes. As required by § 173.424(g), the non-fixed (removable) radioactive surface contamination on the external surface of the package must meet the requirements specified in § 173.443(a), which has both a quantitative upper limit, and an as-low-as reasonably achievable component. Section 173.443(a) requires that the level of non-fixed radioactive contamination may not exceed the limits set forth in Table 9 of § 173.443.

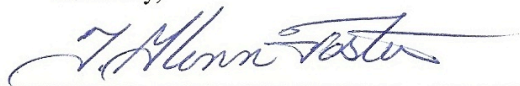
The shipper must either make one or more package wipe measurements and compare the results against the limits in Table 9, or use another method of equal or greater efficiency. If a shipper utilizes a method which relies on a wipe test on the instrument itself instead of the actual external surface of the package, it is acceptable provided it is of equal or greater efficiency than the methodology in § 173.443(a)(1) and meets compliance.

Q2: You ask whether it would be necessary to wipe test every device to demonstrate compliance, or if a representative sample of devices per lot shipped could be wipe tested? Further, you ask what minimum criteria would constitute a representative sample?

A2: A physical contamination survey on the outside of every package, or a wipe test on every device, is not mandated prior to each shipment. Furthermore, there is no minimum criterion of what would constitute a sample. The contamination limits must be met, and it is the shipper's responsibility to determine the methodology, as permitted by § 173.443(a)(2), to be utilized by its operations while maintaining compliance with the requirements of the HMR. It should be noted that many shippers survey every package because they do not want to assume the increased perceived risk of using an alternate method that might allow a contamination non-compliance issue.

I hope this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in cursive script, reading "T. Glenn Foster". The signature is written in dark ink and is positioned above a horizontal line.

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division