



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

SEP - 5 2006

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

Mr. Mark C. Wrobel
Chief, Radiation Protection Division
Secretariat, Air Force Radioisotope Committee
Air Force Medical Operations Agency
Office of the Surgeon General
110 Luke Avenue, Room 405
Bolling AFB, DC 20032-7050

Ref. No.: 06-C153

Dear Mr. Wrobel:

This is in response to your letter dated June 12, 2006, requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) pertaining to the contamination control requirements for Class 7 (radioactive) materials under § 173.443. Specifically, you ask for a wipe test waiver to be granted to the U.S. Air Force for Chemical Agent Monitors (CAMs), Improved Chemical Agent Monitors (ICAMs), and Automatic Chemical Agent Detector Alarms (ACADAs). You have also referenced and enclosed a letter of interpretation from Hattie Mitchell to Vernon Vonders (Ref. No.: 99-0119) that clarified § 173.443 in regards to the degree of flexibility of contamination control.

Section 173.443 states that "The level of non-fixed radioactive contamination may not exceed the limits set forth in Table 9 and must be determined by either:

- (1) Wiping an area of 300 square centimeters of the surface concerned ...; or
- (2) Alternatively, the level of non-fixed radioactive contamination may be determined by using other methods of equal or greater efficiency."

Sections 173.443(a)(1) and 173.443(a)(2) continue to allow a shipper the same degree of flexibility. The shipper must either make one or more wipe measurements and compare the results against the limits in Table 9, or use another method of equal or greater efficiency. As used in § 173.443(a)(2), "efficiency" represents the ratio of a measured value of contamination (such as from a wipe) divided by the actual contamination on the surface of the package, or, in a more general sense, an alternate method which gives the same or greater assurance that the package contamination levels do not exceed the stated regulatory limits. If a shipper utilizes methods which do not rely on actual wipe samples, such as new packaging material which is protected from on-site contamination, it is acceptable as long as it ensures compliance.



060153

173.443

I hope this information is helpful. Should you have further questions, please contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Betts". The signature is stylized with a large initial "C" and "B".

Charles E. Betts
Senior Transportation Specialist
Office of Hazardous Materials Standards



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

BH
§ 173.443
Contamination Control
06-0153

12 June 2006

MEMORANDUM FOR OFFICE OF US DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAM ADMINISTRATION

FROM: AFMOA/SGPR
110 Luke Avenue, Room 405
Bolling AFB, DC 20032-7050

SUBJECT: Request for Wipe Test Waiver for Chemical Agent Monitors (CAMs) and Detectors (CADs)

The US Air Force requests a waiver from Department of Transportation (DOT) requirements for swipe testing of packages prior to shipment for US Air Force CAMs and CADs when new packaging is used. DOT regulation 49 CFR 173.443 stipulates limits on non-fixed (removable) radioactive contamination on the external surfaces of each package offered for transport (Table 11 of 173.443). The contamination limits set in Table 11 are applicable to excepted packages for limited quantities of Class 7 radioactive materials (173.421) and for radioactive instruments and articles (173.424), and are traditionally confirmed by performing a swipe test on the packages surface. At present, the US Air Force has a large inventory of Chemical Agent Monitors (CAMs), Improved Chemical Agent Monitor (ICAMs), and Automatic Chemical Agent Detector Alarms (ACADAs) for which the waiver is requested.

These devices each contain 15 mCi Ni-63, for which annual leak tests are not required in accordance with the devices sealed source and device registry. Use of new packaging to ship these devices would provide high assurance that the criteria of 49 CFR 173.443 are met. Granting this waiver would support US Air Force mission critical activities, and save considerable time and effort, without risk to AF personnel or the public. The attached letters from the US Army to DOT, 4 May 99, and from DOT to the US Army, 10 Jun 99, provide an identical waiver for wipe tests of shipping packages when new packaging materials are used. We request a similar waiver for U.S. Air Force shipments of CAMs, ICAMs and ACADAs. If you have any questions or need further input, then please contact Dr. Ram Bhat at 202-767-4306 or e-mail at ramachandra.bhat@pentagon.af.mil. Our telefax is 202-404-8089.

MARK C. WROBEL, Lt Col, USAF, BSC
Chief, Radiation Protection Division
Secretariat, Air Force Radioisotope Committee
Air Force Medical Operations Agency
Office of the Surgeon General

2 Attachments

1. US Army TAACOM Memo, 4 May 99
2. US DOT Research and Special Program Administration Memo, 10 Jun 99

cc:

AFMC/LSO/LOT (Mr. Werneke)
Item Manager (Mr. Inglet)

\\rammis\rammis\SGZR\FILE PLAN\4 POLICY\4-04 DOT\RQ20060612