


Metal Management, Inc.

Metal Management Aerospace, Inc.

January 9, 2002

US Nuclear Regulatory Commission
 Document Control Desk
 Washington D.C. 20555

On June 19, 2002 Metal Management Aerospace performed the required six month leak tests of our 20mCi , Cd 109 sealed sources. One of these tests indicated that source **model 0102 serial number A3-236** had greater 0.0539 microcuries of removable radioactivity. The analysis was performed by RSA labs, Hebron, CT. The instrument was taken immediately out of service.

After a retest (also performed by RSA Labs) of this source confirmed the original result, we engaged Radiation Safety Associates of Hebron, CT to remove the leaking source and decontaminate the instrument and area. No radioactive material was found in the instrument or the area during the decontamination. The source was returned to the **manufacturer, Isotope Products Labs, Valencia, CA on 7/19/02**

Isotope Products Labs could find nothing wrong with the source, and they returned the source to us on October 21, 2002 with a new leak test showing less than 0.001microcuries or removable radiation.

On December 12, 2002 Metal management Aerospace Performed the required six month leak tests of all of our Cd-109 sealed sources. The tests indicated that two sources had greater than 0.005 microcuries of removable radioactivity. The analysis was performed by RSA Labs, Hebron , CT

On December 12, 2002

Source model 0102 serial number A3-236 had 0.0122 microcuries of removable radioactivity.

Source Model 0102 serial Number A2-235 had 0.0242 microcuries of removable radioactivity.

The instruments that used these sources were immediately taken out of use.

We retested both of these sources using a different lab, Radiation Safety and Control Services, Stratham, NH. The retest confirmed the original results

On December 20, 2002

Source model 0102 serial number A3-236 had 1.26 microcuries of removable radioactivity.

Source Model 0102 serial Number A2-235 had .012051 microcuries of removable radioactivity.

Radiation Safety and Control Services also checked the swabs used on the first test and got confirming results from those swabs also.

- **We do not know the cause of the leaks.** We have not had a leak in a sealed source for over 11 years.
- Both of these sources were **located in the Solid Scrap Sorting Department at E-building at our facility at 500 Flatbush Avenue, Hartford, CT 06106.**
- The material involved is **electroplated Cd-109 metal in sealed 20 mCi sources.**

Corrective Actions Taken/Planned:

- 1) We have a return authorization from Isotope Products Labs to return the source. We have issued a purchase order to Radiation Safety Associates, Hebron CT to remove the source, package it for shipment and decontaminate the area if required.
- 2) We have already posted a notice on the log book where we keep our leak tests advising "It is a requirement of our license that we inform the NRC in writing within 30 days of discovering a leaking source. Refer to our NRC license"

Extent of Exposure:

The sources sit under a shutter and behind a steel plate with a mylar window. The operator of the equipment does not come into direct contact with the source. When Radiation Safety Associates removed source A3-236 in July, they found no contamination on the outside of the instrument or in the area including the floor. We found no exposure to any individual in July and we expect that there will be no exposure to any individual at this time.



Dan Mullen
Radiation Safety Officer

cc: USNRC Region I
475 Allendale Rd
King of Prussia, PA 19406