



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

14 Sep 12

MEMORANDUM FOR Administrator, NRC Region IV
ATTN: Mr. Elmo Collins

FROM: AFMSA/SG3PB

SUBJECT: Report, Loss of Radioactive Material – Chemical Agent Detector (CAD) Cell

1. IAW 10 CFR 20.2201(b)(2)(ii), we are providing a written report for the loss of radioactive material. The loss of material was reported on 15 Aug 2012; 1) telephonically to NRC Operations Center and 2) via E-mail to NRC, Region IV (Ms. Cook). The following information addresses the reporting requirements:

a. Description of the licensed material: The subject device contained americium-241 (Am-241), one source, at 250 microcuries with chemical form of americium oxide. The source is physically described as a plated foil source as referenced in Sealed Source & Device Registry (SS&DR) NR-1129-D-801-S (21 Mar 2008). The subject device was authorized under USAF Permit No. NJ-00370 with the permittee being 177th FW/CC.

b. Description of circumstances for loss: The subject item was designated for disposal and was to be shipped to the Air Force Radioactive, Recycle and Disposal (AFRRAD) office. The permittee had prepared the CAD for shipment and delivered it to their local Traffic Management Office (TMO) on 2 Feb 12. The permittee was questioned about the subject material on 10 Aug 12 by the Air Force Inspection Agency (Maj Sassi) and declared that the material was shipped, however the receipt documentation was not yet obtained from AFRRAD. AFRRAD was contacted by the permittee and stated that they had never received the package. The permittee then initiated an internal investigation and search for the source. The permittee declared to the Radioisotope Committee Secretariat (RICS) that the source was missing on 15 Aug 2012.

c. Statement of disposition: The subject source was found on 16 Aug 2012 by the permittee in TMO's facilities, still packaged, sitting on top of a storage locker. The RICS notified NRC Operations Center and NRC, Region IV that the source was located.

d. Exposures to individuals: The package was misplaced for approximately 121 days. Exposure rate 3 feet away from the package was measured at 7 microRoentgen per hour (uR/hr). This coincides with expected exposures rate values stated in the SS&DR. Due to the remote placement of the package and personnel occupancy factors, no members of the public were likely exposed.

e. Actions taken: The RICS issued three violations to the permittee for 1) lack of control, 2) failure to conduct physical inventory, and 3) failure to maintain records of transfer and receipt. The permittee has addressed all violations with corrective actions. Furthermore, the permittee shipped the CAD to AFRRAD, received the appropriate confirmation receipt, and submitted an application for permit termination. The permit that authorized the use of the subject device has been terminated by the RICS.

Reviewer: [Signature]
 Other
 A.7 Sensitive Internal
 A.3 Sensitive-Security Related
NON-PUBLIC
 Normal Release
 Immediate Release
PUBLIC

f. Procedures/measures to rectify future loss: The Permittee mandated a chain of custody requirement for shipments of radioactive material. We are considering implementing this across the Air Force.

2. If you have any questions, please contact my action officer for this matter, Maj Dan Shaw, at 703-681-7855 or E-Mail at daniel.shaw@pentagon.af.mil or David Cessor-Culver at DSN 703-681-6946 or E-Mail at david.cessor-culver.ctr@pentagon.af.mil.



DAVID A. SMITH, Lt Col, USAF, BSC, PhD
Chief, Air Force Radioisotope Committee Secretariat
Air Force Medical Support Agency
Office of the Surgeon General