



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

14 June 2018

MEMORANDUM FOR Administrator, NRC Region IV
ATTN: Mr. K. Kennedy

FROM: AFMSA/SG3PB

SUBJECT: Request for Cancellation of Notification EN 51062 dated 05/11/15

IAW 10 CFR 20.2201(b) (2) (ii), we are providing a written report for the loss of radioactive material (RAM) at Cannon AFB NM. The loss of RAM was reported on 11 May 2015 telephonically to the U.S. Nuclear Regulatory Commission (NRC) Operations Center, Event No. 51062 and via E-mail to NRC, Region IV (Ms. M. Simmons). The following information addresses the reporting requirements:

a. Description of the Licensed Material: The subject source may be Am-241, check source with activity between one and five micro curie.

b. Description of Circumstances for Loss: The Cannon employee entered the check source as Other RAM Inventory and stated that it was Am-241 check source for Smith Detection Model 1500 stored in room #200 at Building 1400. No point of contact, serial number, or source activity was entered into the Radioactive Materials Management Information System (RAMMIS) database (See the attachment). The room #200 of the Building 1400 is within the 27 Special Operations Medical Group (27 SOMDG) clinic, but the room was used for the 27 SOMDG snack bar storage for the last several years. The manufacturer, Smith Detection representative says they never had a Model 1500. The RAMMIS data entries do not have the printed name, date and signature (See the attachment) and we have determined that it was not a valid entry in the RAMMIS database. Thus, the Radio-Isotope Committee Secretariat (RICS) should not have informed NRC Operation Center about the loss of Am-241 on 11 May 2015 as the entry was not a valid entry in the RAMMIS database.

c. Statement of Disposition: After interviews and physical and/or records searches of previous radiation safety officers' files, the medical logistics office, medical equipment office, Cannon Air Force Base emergency management office, and the Air Force Radiation Recycling and Disposal office, failed to produce any evidence of the source's existence, and it is concluded that there was an error in the entry of RAMMIS database. The RICS should not have reported to NRC Operation Center about the loss of Am-241 on 11 May 2015.



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d. Exposures to Individuals: Based on radiological monitoring of similar sources/devices, the estimated level of radiation exposure would be negligible. The NUREG/CR-1156 (Nov 1979) "Environmental Assessment of Ionization Chamber Smoke Detectors Containing Am-241" performed analyses of Am-241 foil sources contained in Ionization Chamber Smoke Detectors (ICSD) at three micro curies each. Disposal is by either sanitary landfill or incineration. Further, the report stated, "Analysis of potential accidents with Am-241 ICSDs showed the dose commitments received by maximally exposed individuals to be significantly within the safety criteria standards required by the NRC." A comparative review would indicate that exposure from one to five micro curies Am-241 plated sources would not likely exceed public dose standards.

e. Actions to be Taken: There is only one GLD, an Ion Scan (15 mci Nickel 63 source), at Cannon AFB. We will update the RAMMIS database once the NRC accepts to cancel the Event # 51062.

f. Procedures/Measures to Rectify Future Loss:

(1) Raise the awareness of the Bioenvironmental Engineering (BE) flight regarding RAM in work centers. BE technicians are trained to identify and assess occupational hazards, to include RAM and ionizing radiation producing devices. Additional training on RAM will be done in parallel with a validation of the current work center assessment process in regards to RAM and ionizing radiation producing devices. As the Installation Radiation Safety Officer (IRSO), the BE Flight Commander has the required visibility to identify and manage RAM at Cannon AFB through technician performed surveys.

(2) The IRSO is working with the Civil Engineering, Logistics, and Contracting functional areas at Cannon AFB to ensure no RAM is brought on or departs the installation without IRSO awareness and approval.

(3) The IRSO will also detail the requirements for inventory data entry for both the local and Air Force level RAMMIS to include sufficient detail to uniquely and unambiguously identify RAM. At a minimum a serial number (either locally generated or from the manufacturer), activity, date of activity, location/work center and a point of contact (POC) responsible for the source will be required. The POC will acknowledge responsibility in writing.



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g. Request for Cancellation of Notification of EN 51062: In summary, we request NRC to cancel the Radioisotope Committee Secretariat's notification to NRC Operation Center on 11 May 2015 regarding the loss of Radioactive Material Am-241 check source (EN 51062).

h. If you have any questions, please contact me at 703-681-6871 or E-Mail at ramachandra.k.bhat.civ@mail.mil.

Ramachandra K. Bhat, Ph.D., CHP
Senior Health Physicist
USAF Radioisotope Committee Secretariat
AF Medical Support Agency Office of the
Surgeon General

CC:
NRC Region IV (Dr. Evans)
AFIA/SGO (Maj Kice)
27 SOMDG/SOAMDS (Lt Col Gilliam)
AFSEC (Maj Clinton)

Attachment:
Model 1500 in RAMMIS Database

Inventory Type: Other RAM

Base: CANNON AFB

<u>Isotope</u>	<u>Manufacturer</u>	<u>Model #</u>	<u>Serial #</u>	<u>Bldg #/LOC</u>	<u>Room #</u>	<u>Use</u>	<u>Unit/Office Symbol</u>	<u>POC Name</u>	<u>POC Phone</u>	<u>POC Fax (DSN)</u>	<u>Leak Test Required</u>
Am-241	Smiths	1500	RAMMIS0016-000001	1400	200	Calibration	27 mdg	s	7	7	N

Printed Name / Date

Signature

NRC Event Notification Report for May 20, 2015

Non-Agreement State	Event Number: 51062
Rep Org: U.S. AIR FORCE Licensee: U.S. AIR FORCE Region: 1 City: FALLS CHURCH State: VA County: License #: 42-23539-XXAF Agreement: Y Docket: NRC Notified By: ANTONY CAGLE HQ OPS Officer: DONG HWA PARK	Notification Date: 05/11/2015 Notification Time: 09:48 [ET] Event Date: 04/13/2015 Event Time: 10:30 [EDT] Last Update Date: 05/11/2015
Emergency Class: NON EMERGENCY 10 CFR Section: 20.2201(a)(1)(ii) - LOST/STOLEN LNM>10X	Person (Organization): MICHAEL VASQUEZ (R4DO) NMSS_EVENTS_NOTIFICA (EMAI)
This material event contains a "Less than Cat 3 " level of radioactive material.	

Event Text

LOST/MISSING CALIBRATION SOURCE

The following was received by email:

"Notification from Master Material License [MML] No. 42-23539-XXAF, issued to the Department of the Air Force. The following report of a possible lost or missing source likely involves a source not specifically licensed under the MML:

"On 13 April 2015 at 1030 hours, an officer newly assigned to Cannon AFB [Air Force Base] discovered a source on the radioactive material inventory he could not physically locate. The source was listed as an Am-241 check source for a Smiths model 1500 instrument, with no information provided except for a previous storage location. The officer could not locate any records of disposition for this source, but continues to investigate disposition records for the base. The officer interviewed a predecessor who asserted the Am-241 line item on the inventory could be a clerical error.

"The licensee contacted Smiths Detection which to date could not verify the existence of a Smiths Model 1500 or an Am-241 check source.

"They are unaware of any exposures at this time.

"The base will ensure complete/accurate data entry for radioactive material inventories and subsequent verification of inventory through physical 'eyes-on' inventories."

THIS MATERIAL EVENT CONTAINS A "LESS THAN CAT 3" LEVEL OF RADIOACTIVE MATERIAL

Sources that are "Less than IAEA Category 3 sources," are either sources that are very unlikely to cause permanent injury to individuals or contain a very small amount of radioactive material that would not cause any permanent injury. Some of these sources, such as moisture density gauges or thickness gauges that are Category 4, the amount of unshielded radioactive material, if not safely managed or securely protected, could possibly - although it is unlikely - temporarily injure someone who handled it or were otherwise in contact with it, or who were close to it for a period of many weeks. For additional information go to http://www-pub.iaea.org/MTCD/publications/PDF/Pub1227_web.pdf

Single Event Report**NMED Item Number: 150271****Narrative:****Last Updated:** 02/15/2016

The Department of the Air Force (Cannon Air Force Base) reported a lost or missing generally licensed Am-241 calibration source (Smiths Detection model 1500). On 4/13/2015, a newly assigned installation radiation safety officer (IRSO) could not physically locate the source, which was specified on their radioactive material inventory. The IRSO could not locate any records of disposition for the source. Accountability for the source was most likely lost in February 2011, when the room the source was stored in was flooded due to frozen pipes, forcing relocation of stored equipment. The IRSO interviewed his predecessor, who felt that the Am-241 source line item on inventory was likely a clerical error. Department of Air Force is treating the incident as a lost source.

Event Date: 04/13/2015 Date Reported to Agreement State:
Discovery Date: 04/13/2015 Date Reported to NRC: 05/11/2015

Licensee/Reporting Party Information:

Regulated By: NRC Reciprocity: NONE
License Number: 42-23539-01AF Name: DEPARTMENT OF THE AIR FORCE
NRC Docket Number: 03028641 City: BOLLING AFB
NRC Program Code: 03614 State: DISTRICT OF COLUMBIA
NRC Region: 4

Site of Event:

Site Name: CANNON AFB State: VIRGINIA

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA
NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: N Investigation: Y
Atomic Energy Act Material: Y Record Complete: N
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

LAS - LOST/ABANDONED/STOLEN

Event Cause:

LAS

Cause: HUMAN ERROR / MANAGEMENT DEFICIENCY

Event IAEA Aggregate Category:

LAS

IAEA Aggregate Category: NR

Corrective Actions Information:

Event Type: Number: Action:

LAS 1 IMPROVE RADIOACTIVE MATERIAL LABELING AND HANDLING

Source/Radioactive Material Information:

LAS

Source Number: 1
 Source/Material: SEALED SOURCE CALIB/MARKER Radionuclide: AM-241
 Manufacturer: SMITHS DETECTION Activity (Ci): NR
 Model Number: 1500 IAEA Category: NR
 Serial Number: NR

Reporting Requirement Information:

Event Type: Requirement:
 LAS 20.2201(a)(1)(ii) - Lost, stolen, or missing licensed material in a quantity greater than 10 times the Appendix C quantities.

Keywords:

Event Type: Keyword:
 LAS MATERIAL LOST AND NOT FOUND

Reference Documents:

Reference Document Number:	Entry Date:	Retraction Date:	Type of Report:
EN51062	05/19/2015		EVENT NOTIFICATION
LTR160201	02/15/2016		LICENSEE REPORT