RI - DNMS Licensee Event Report
Disposition

Licensee: Huntingdon Life Sciences

Event Description: Sealed Source Leakage

License No: 29-14880-01 | Docket No: 03005072 | MLER-RI: 2006-011

Event Date: 10/26/06 | Report Date: 10/27/06 | HQ Ops Event #:

1. REPORTING REQUIREMENT

- [ ] 10 CFR 20.1906 Package Contamination
- [ ] 10 CFR 20.2201 Theft or Loss
- [ ] 10 CFR 20.2203 30 Day Report
- [X] Other NOT required
- [ ] 10 CFR 30.50 Report
- [ ] 10 CFR 35.3045 Medical Event
- [ ] License Condition

2. REGION I RESPONSE

- [ ] Immediate Site Inspection — Inspector/Date
- [ ] Special Inspection — Inspector/Date
- [ ] Telephone Inquiry — Inspector/Date
- [ ] Preliminary Notification/Report
- [X] Information Entered in RI Log
- [ ] Report Referred To:
- [ ] Daily Report
- [✓] Review at Next Inspection

3. REPORT EVALUATION

- [✓] Description of Event
- [✓] Levels of RAM Involved
- [NA] Cause of Event
- [NA] Corrective Actions
- [✓] Calculations Adequate
- [NA] Additional Information Requested from Licensee

4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

- [NA] Release w/Exposure > Limits
- [NA] Repeated Inadequate Control
- [NA] Exposure 5x Limits
- [NA] Potential Fatality
- [NA] Deliberate Misuse w/Exposure > Limits
- [NA] Pkging Failure>10 rads/hr or Contamination>1000x Limits
- [NA] Large# Indivs w/Exp>Limits or Medical Deterministic Effects
- [NA] Unique Circumstances or Safeguards Concerns

If any of the above are involved:

- [NA] Considered Need for IIT
- [NA] Considered Need for AIT

Decision/Made By/Date:

5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

- [NA] Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose)
- [NA] Medical Consultant Used-Name of Consultant/Date of Report:
- [NA] Medical Consultant Determined Event Directly Contributed to Fatality
- [NA] Device Failure with Possible Adverse Generic Implications
- [NA] HQ or Contractor Support Required to Evaluate Consequences

6. SPECIAL INSTRUCTIONS OR COMMENTS

Review during next routine inspection

☐ Non-Public

☒ Public-SUNSI REVIEW COMPLETE

Inspector Signauture: [signature] Date:

Branch Chief Initials: [signature] Date: 11/14/6

Location of File: G:\Reference\Blank Forms\LER FORM.wpd

Rev. 02/25/05

RECEIVED
REGION 1

2006 OCT 18 PM 1:14

Huntingdon Life Sciences

12-Oct-06

Nuclear Materials Safety Branch
US Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

NRC Material License No. 29-14800-01

Subject: Report of Presumed Loss of 10 mCi of Kr-85 Gas from Sealed Source

Dear Sir:

On 6 October 2006 our Radiation Safety Officer did a physical inventory of our three Kr-85 sealed sources. Kr-85 is a noble gas with a half life of 10.76 years. Each of these sealed sources is in a device used to reduce the electric charge on aerosols flowing through a tube. Each device is tubular in shape with dimensions about 2 feet long and 4 inches in diameter. These devices are used only occasionally. They were all present and stored in Room P-416 which is the P-wing radioactive waste storage room. This room is locked and under strict access control. Persons enter this room only rarely to deliver and remove samples or other items for storage. The sealed sources were manufactured by Thermo Systems, Inc. (TSI) in St. Paul, Minn.

The RSO separated the three sealed source devices and measured the dose rate at the surface of each device using Huntingdon's Thermo-Bicron Surveyor 2000 survey meter with Eberline-Bicron pancake GM probe HP360, SN 003848. The instrument had a background of 0.04 mR/h and 40 cpm. The results, in mR/hr, are recorded below.

Kr-85	Activity (mCi)	Activity Date	Model	Serial No.	Surface Dose Rate, mR/hr
A	10	3-93	3054	2104	2.0
B	10	3-93	3054	2103	2.0
C	**10**	**10-17-1980**	**3054**	**660T**	**0.04**

The low dose rate (equal to background) for the oldest device (SN 660T) is indicative of a leak and the complete loss of the Kr-85 gas.

We are herein reporting the presumed leakage and loss of 10 mCi of Kr-85 gas from the device with serial number 660T. Although the condition was discovered on 6 October 2006, it is unknown as to when the actual leak occurred, and could have been many years ago.

Very truly yours,

Michael Caulfield
General Manager
Huntingdon Life Sciences, Inc.

Huntingdon Life Sciences, Inc. PO Box 2360, Mettlers Road, East Millstone, NJ 08875-2360 USA.
Tel: +1 732 873 2550 Fax: + 1 732 873 3992