



DEPARTMENT OF THE ARMY ~~FORM 21-86-22~~  
 HEADQUARTERS, US ARMY COMMUNICATIONS ELECTRONICS COMMAND  
 AND FORT MONMOUTH  
 FORT MONMOUTH, NEW JERSEY 07703-6000

REPLY TO  
 ATTENTION OF

RETURN ORIGINAL TO  
 RECD

February 20, 1986

Safety Office

US Nuclear Regulatory Commission  
 631 Park Avenue  
 King of Prussia, PA 19406

Gentlemen:

On 12 February 1986, this command was apprised of the destruction of one each MX-7338/PDR-27( ) Radioactive Test Sample, serial number K3317.

In maintaining compliance with paragraph 20.402 of Title 10, Code of Federal Regulation (CFR), Part 20, and with US Nuclear Regulatory Commission Byproduct Material License Number 29-01022-11 authorizing the possession and use of the MX-7338/PDR-27( ) Radioactive Test Sample by the Department of the Army, the following information is provided:

a. The radioactive material being reported is identified as one (1) each MX-7338/PDR-27( ) Radioactive Test Sample containing a maximum of five millicuries (mCi) of Krypton-85. Approximate activity of the source at the time of loss was calculated to be 2.62 mCi. The MX-7338/PDR-27( ) is a five inch wand-shaped check source used to check the functional operation of the AN/PDR-27( ) standard Army beta-gamma radiation detection instrument (radiac set). The AN/PDR-27( ) Radiac Set includes a metal carrying case incorporating the radiation detection instrument, the MX-7338/PDR-27( ), spare Geiger-Mueller tubes and other ancillary components.

b. The AN/PDR-27( ) Radiac Set with the associated MX-7338/PDR-27( ) Radioactive Test Sample was assigned to the Nuclear Biological and Chemical Team of the C Battery 1/37 Field Artillery, Fort Wainwright, Alaska. On 5 February 1985, the AN/PDR-27( ) Radiac Set and other miscellaneous equipments were being transported aboard a military vehicle. The vehicle became involved in an accident on Parks Highway, just outside the Fort Wainwright military reservation and fire resulted. The cause of the fire is presently unknown and is being investigated by the Criminal Investigation Department and the local fire department. The accident/fire resulted in no injuries to personnel, however, all equipments on board, including the radioactive test sample were destroyed.

c. On 12 February 1986, the 1/37 Field Artillery informed the installation Radiation Protection Officer (RPO) at Fort Richardson, Alaska of the incident and described the general condition of the equipment aboard the bus as being melted. The RPO informed involved personnel of the 1/37 Field Artillery that Krypton-85 is an inert gas and that its nature prohibits its chemical combination with the environment. Members of the 1/37 Field Artillery surveyed the area and found no radiation levels above background.

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Please contact us directly if you have any questions or if we may be of further assistance in this matter. We may be reached by telephone at 201-544-4427.

Sincerely,

*for Barry Silber*  
STEVEN A. ROENE  
Acting Chief, Safety Office

Copy Furnished:  
Commander, AMC, ATTN: AMCSF-P

**3. ACTION CONTROL DATA**

Licensee DEPT. OF THE ARMY COMMUNICATIONS-ELECTRONICS CO

Event Description LOST CRYPTOR 85 TEST SOURCE

Event Date 2-12-86

Report Date 2-20-86

**12. REPORTING REQUIREMENT**

- 10 CFR 20.402 - theft or loss
- 10 CFR 20.403(a)(b) overexposure/release
- 10 CFR 20.405 - 30 day report
- Other \_\_\_\_\_
- 10 CFR 35.42 Therapeutic Misadministration
- 10 CFR 35.43 Diagnostic Misadministration
- License Condition

**11. REGION 1 RESPONSE**

- Immediate Site Inspection Inspector \_\_\_\_\_ Date \_\_\_\_\_
- Special Inspection Inspector \_\_\_\_\_ Date \_\_\_\_\_
- Telephone Inquiry Inspector \_\_\_\_\_ Date \_\_\_\_\_

Licensee Representative and Title \_\_\_\_\_

- FN  Daily Report
- Information entered - Region 1 log and Outstanding Items List
- Review at next routine inspection

**IV. REPORT EVALUATION**

- Description of Event
- Levels of R/M involved
- Cause of Event
- Corrective Actions
- Calculation Adequate
- Letter to Licensee requesting additional information

Completed by: R. H. Gaddis

Date 2/10/86

Reviewed by: J. D. Kenner

Date 4/8/86

**V. SPECIAL INSTRUCTIONS OR COMMENTS**