

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 999-90012

License No.: General License (10 CFR 31.5)

Report No.: 999-90012/01-01

Licensee: Freedom Lincoln Mercury

Location: 1765 South Military Highway
Chesapeake, Virginia

Date: June 18, 2001

Inspector: Richard Gibson, Jr., Health Physicist
Materials Licensing/Inspection Branch 1
Division of Nuclear Materials Safety

Approved by: Thomas R. Decker, Chief
Materials Licensing/Inspection Branch 1
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Freedom Lincoln Mercury
NRC Inspection Report No. 999-90012/01-01

This special, unannounced safety inspection was conducted on June 18, 2001, to evaluate the circumstances associated with the unauthorized transfer of a static eliminator that contained 10 millicuries (mCi) of polonium-210 (Po-210), and the failure of the licensee to submit a written report to the NRC within 30 days after making the telephone report on April 30, 2001, regarding the unauthorized transfer and recovery of a static eliminator.

On or about April 29, 2001, Freedom Lincoln Mercury made an unauthorized transfer of a static eliminator containing 10 mCi of Po-210 to a member of the public who was not authorized to receive and possess such licensed material. The eliminator was subsequently found abandoned in a vacant lot in Virginia Beach, Virginia by a member of the public who contacted the local authorities and the Commonwealth of Virginia. The Commonwealth of Virginia retrieved the static eliminator and transferred it back to the licensee. After retrieving the device, the licensee properly transferred it to the manufacturer.

The unauthorized transfer of the static eliminator to the public domain had a low actual safety significance because radiation measurements on the surface of the device were less than 0.01 millirem per hour as measured by the licensee prior to shipment to the manufacturer. However, there was a potential for release of the radioactive material from its plating on the source and exposure of members of the public to radiation levels in excess of NRC limits from possible internal contamination. The NRC regulatory limit for occupational Annual Limits of Intake are 3 and 0.6 microcuries for ingestion and inhalation, respectively.

Attachments:

List of Persons Contacted
Inspection Procedure Used

REPORT DETAILS

1. **Program Scope and Licensee Organization**

The licensee is authorized to possess and use radioactive material under a General License for the purpose of eliminating static electricity during spray painting of cars at the facility body shop. The static eliminator was an end piece device that was attached to a spray paint gun. The device contained 10 millicuries (mCi) of polonium-210 (Po-210) and was properly transferred to the manufacturer on or about April 30, 2001.

2. **Circumstances Relative to the Transfer of the Licensee's Static Eliminator.**

a. Scope

The inspector reviewed licensee records and interviewed knowledgeable licensee representatives at the licensee's Chesapeake, Virginia facility, to evaluate the apparent unauthorized transfer of an AEA Technology Inc., Model No. PDM 1002Hn Series static eliminator on or about April 29, 2001.

b. Observations and Findings

On June 18, 2001, an NRC inspection was conducted to review the facts and circumstances surrounding the licensee's unauthorized transfer of an AEA Technology Inc., Model No. PDM 1002Hn Series static eliminator to a member of the public who was not authorized to receive and possess such licensed material. The device was subsequently found abandoned in a vacant lot located in Virginia Beach, Virginia. On or about April 29, 2001, the licensee had received a new static eliminator in the Part's Department at the licensee's Chesapeake, Virginia facility. The static eliminator which contained 10 mCi of Po-210, was to replace the used one at the licensee's paint and body shop. The static eliminator was an end piece device that was attached to a spray gun used to paint cars. The static eliminator was used to eliminate static electricity from the paint. During the inspection, the inspector was informed that a Body Shop Manager was notified by a Part's employee that the new static eliminator had arrived. The Body Shop Manager opened the package, identified the static eliminator and informed Part's personnel that the static eliminator was no longer being used by the paint and body shop and to return it to the manufacturer. According to the Part's Manager, the part's employee was unfamiliar with the proper method for shipping the package and allowed the package to sit on a shelf in the Part's department. At some point during the licensee's move of its Paint and Body Shop and Part's Departments from the old location at Norview Avenue, North Military Highway, Norfolk, Virginia to their new location at 1765 South Military Highway, Chesapeake, Virginia, the static eliminator was transferred to the public domain.

During the inspection, the Part's Manager informed the inspector that the apparent unauthorized transfer of the static eliminator probably occurred during the moving of shelves from the old location to her sister's residence in Virginia Beach, Virginia. She said that one of her children may have seen the static eliminator and picked it up, thinking it was some type of toy and then threw it away when they were at her sister's residence. The Part's Manager's sister lives next to the vacant lot where the static eliminator was found by a member of the public. The Part's Manager stated that her

children may have played with the eliminator for approximately two hours. The static eliminator was found intact and was shipped by the licensee to the manufacturer, AEA Technology, Inc. In addition, a representative of the Commonwealth of Virginia conducted a leak test of the sealed source contained in the device and did not identify any removable contamination that exceeded NRC regulatory limits. The licensee's transfer of licensed material to a member of the public who was not authorized to receive and possess such licensed material and the subsequently abandonment of the device in a vacant lot in Virginia Beach, Virginia, was identified as an apparent violation of 10 CFR 31.5(c)(8) and (c)(9).

10 CFR 31.5(c)(8) requires, in part, that any person who acquires, receives, possesses, uses or transfer material in a device pursuant to a general license shall transfer or dispose of the device containing byproduct material only by transfer to a person holding a specific license pursuant to 10 CFR Part 30 and 32 of this chapter or from an Agreement State to perform such activities. The unauthorized transfer of the static eliminator to a member of the public not specifically licensed by the NRC or an Agreement State to receive and possess such licensed material was identified as an apparent violation of 10 CFR 31.5(c)(8). 10 CFR 31.5(c)(9) requires, in part, that the person shall transfer the device to another general licensee only: (i) where the device remains in use at a particular location; or (ii) where the device is held in storage in the original shipping container at its intended location of use prior to initial use by a general licensee. The licensed material was not transferred to another general licensee where it remained in use at a particular location or held in storage, as required by 10 CFR 31.5(c)(9).

On April 30, 2001, the Commonwealth of Virginia notified the NRC Region II office, by telephone, of a discovery of a static eliminator device found by a member of the public in a vacant lot located in Virginia Beach, Virginia. After receiving notification from the Commonwealth of Virginia, the NRC Region II Office contacted the licensee to review the circumstances surrounding the discovery of the device in the vacant lot. During this telephone conversation between Mr. Wade Loo of the Region II and the licensee's Human Resource Manager (HRM) the licensee's representative was informed that within 30 days, a written report was due to in the Regional Office describing the licensed material, the circumstances surrounding the unauthorized transfer of the material and the corrective steps that have been taken or will be taken to prevent recurrence. The telephone contact between Mr. Loo and the HRM would be adequate for meeting the NRC telephone reporting regulatory requirements.

During discussions between the HRM and the inspector, the inspector was informed of the licensee's belief that all required notifications to the NRC had been made, and that the licensee was not aware that additional notifications were needed. The inspector informed the licensee that it was required to make a written report to the NRC Region II office in accordance with 10 CFR 20.2201(b) of the NRC regulations within 30 days after making the telephone report. The licensee assured the inspector during the inspection, that a written report would be submitted to the NRC Region II office.

10 CFR 20.2201(b) provides that each licensee required to make a report under paragraph (a) of this section shall, within 30 days after making the telephone report, make a written report setting forth: (i) a description of the licensed material involved, including kind, quantity, and chemical and physical form; and (ii) a description of the circumstances under which the loss or theft occurred; (iii) a statement of disposition, or probable disposition, of the licensed material involved; and (iv) exposures of individuals to radiation, circumstances under which the exposures occurred, and the possible total effective dose equivalent to persons in unrestricted areas; and (v) actions that have been taken, or will be taken, to recover the material; and (vi) procedures or measures that have been or will be, adopted to ensure against a recurrence of the loss or theft of licensed material. The licensee has not within 30 days after making the telephone report on April 30, 2001, regarding the unauthorized transfer and recovery of a static eliminator containing 10 mCi of Po-210, submitted a written report as required by 10 CFR 20.2201(b).

c. Conclusion

The inspector concluded that the licensee's failure to transfer the generally licensed device to an individual specifically licensed by the NRC or an Agreement State, or another general licensee was identified as an apparent violation of 10 CFR 31.5(c)(8) and (c)(9). In addition, the licensee's failure to make a written report within 30 days after making the telephone report was identified as an apparent violation of 10 CFR 20.2201(b).

EXIT MEETING SUMMARY

An exit meeting was held with licensee representatives on June 18, 2001. The overall findings from the inspection were discussed, including the apparent violations. The licensee did not specify that any information reviewed during the inspection was proprietary in nature.

ATTACHMENT

1. PERSONS CONTACTED

Freedom Lincoln Mercury

*Brian Wynne, General Manager
*Betty Mills, Human Resource Manager
Lanny Nelson, Body Shop Manager
Clint Cholish, Body Shop Manager
Robbie Malvis, Parts Manager

*Attended the June 18, 2001, Exit Meeting

2. INSPECTION PROCEDURE USED

IP 87114 Fixed and Portable Gauges

3. ABBREVIATIONS USED

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|---------|-------------------------------|
| CFR | Code of Federal Regulation |
| Po-210 | polonium-210 |
| mCi | millicurie |
| mrem/hr | millirem per hour |
| NRC | Nuclear Regulatory Commission |