License No. 20-00671-02
Docket No. 030-01815
MLER-RI - 96-56

DEPARTMENT OF VETERANS AFFAIRS
VA Medical Center/Outpatient Clinics
150 South Huntington Avenue
Boston, Massachusetts 02130

DEC 20 1996

In Reply Refer To: 523/11RSO

Michelle Beardsley
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Dear Ms. Beardsley,

1. Pursuant to NRC regulation 20.2202 "Notification of Incidents", we hereby submit an account of an incident that occurred at our facility on September 23, 1996, as prepared by our Radiation Safety Officer.

a. On September 23, 1996 at 3:10 p.m., A package was received at the Boston VA Medical Center containing radioactive seeds (Ir-192, 44 millicuries) delivered from the New England Medical Center (NEMC). The package was delivered by (NEMC) staff, Ken Ulin, Ph.D. via taxi (Red Cab). Pursuant to the United States Nuclear Regulatory Commission, (NRC) Rules and Regulations, Title 10, Chapter 1, Code of Federal Regulations-Energy, Subpart J-Precautionary Procedures, 20.1906-Procedure for receiving and opening packages, an external exposure rate measurement was performed at the surface, at 3 feet from the package and a removable contamination survey.

b. The package was labeled as a Radioactive II with a transport index of 0.3. The maximum allowable exposure rate for a Radioactive II is 50 mrem/hr and a transport index of less than 1.0. The transport index is an indicator of the exposure rate at 3 feet. The maximum measured exposure rate from the bottom of the package was 400 mR/hr and 40 mR/hr at 3 feet. The radiation meter used for the measurements was an ion chamber Victoreen Model 470A Serial No. 1677, with a calibration date of May, 29, 1996. There was no measurable removable contamination from the package. The enclosed survey information provided from NEMC stated a surface exposure rate of 5 mR/hr, 0.3 mR/hr at 3 ft and 0 DPM/100 cm^2 contamination level.

c. NEMC radiation protection staff was immediately contacted. Tom McMann, Associate Radiation Safety Officer, was contacted to discuss possible reasons for the elevated exposure rates. Mr. McMann was asked if the sources were removed from the shielded housing and repacked. Mr. McMann confirmed that the sources were removed for calibration and repacked by himself. Mr. McMann also indicated that he performed a survey of the package prior to shipping and the readings were identical to the initial readings when he received the package. Mr. McMann stated that he neglected to survey the bottom of the package. The package was opened at VA Medical Center to discover

one of the seeds protruding out of the shielded housing. The source was retracted into the shielded housing and resealed into its original configuration as when received. External exposure rate measurements were taken with the source retracted and exposure rates of 5 mR/hr at the surface and 0.3 mR/hr at 3 feet were observed.

d. The Administrative Assistant to the Chief of Staff was briefed of the situation and would be updated when our Health Physics Consultant was contacted.

e. Our Health Physics Consultant, Frank Masse was contacted for advise and to review the regulations. The regulations state very clearly that immediate notification to the NRC is warranted as well as notification to the final delivery carrier (Red Cab), 10 CFR 20.1906 (d) (2).

f. A meeting was held with the AA/COS, Acting Medical Center Director and the Radiation Safety Officer and it was decided that notification to the NRC and to the final delivery carrier was warranted.

g. NEMC and Frank Masse were notified of our decision to report this incident to the NRC.

h. Our Radiation Safety Officer contacted the appropriate NRC Regional Office and briefed them of the situation and was asked to remain available for additional information.

i. The final delivery carrier "Red Cab" was notified by NEMC and by our Radiation Safety Officer. Our RSO indicated to "Red Cab" that the worst case dose to the driver was on the order 10 mrem and equivalent to a single chest x-ray.

j. Dr. Charles Hyde, Chairperson, Radiation Safety Committee was notified of the situation on 9/24/96.

k. We feel that the we have satisfied all pertinent NRC regulations with regard to this situation and no further action will be required by the VAMC, although we do expect a visit from the NRC in the very near future.

2. If you have further questions please contact Mark F. Walsh, Radiation Safety Officer at (617) 232-9500 extension 5649.

ELWOOD J. HEADLEY, M.D.
Medical Center Director

HOSPITAL

EVENT NUMBER: 31047

LICENSEE: DEPARTMENT OF VETERANS AFFAIRS
CITY: BOSTON REGION: 1
COUNTY: SUFFOLK STATE: MA
LICENSE#: 20-00671-02 AGREEMENT: N
DOCKET:

NOTIFICATION DATE: 09/23/96
NOTIFICATION TIME: 16:36 [ET]
EVENT DATE: 09/23/96
EVENT TIME: 00:00[EDT]
LAST UPDATE DATE: 09/23/96

NOTIFICATIONS

ANDERSON	RDO
GREEVES	EO
PAPARILLO	NMSS
CONGEL	AEOD

NRC NOTIFIED BY: M. WALSH
HQ OPS OFFICER: BOB STRANSKY

EMERGENCY CLASS: NOT APPLICABLE
10 CFR SECTION:
NTRA TRANSPORTATION EVENT

EVENT TEXT

THE LICENSEE MEASURED EXCESSIVE DOSE READINGS FROM A PACKAGE DELIVERED FROM THE NEW ENGLAND MEDICAL CENTER.

THE VA MEDICAL CENTER IN BOSTON, MA REPORTED THAT A PACKAGE DELIVERED FROM THE NEW ENGLAND MEDICAL CENTER WAS SURVEYED WITH READINGS IN EXCESS OF USDOT SHIPPING LIMITS. THE PACKAGE WAS READING APPROXIMATELY 400 mR/HR ON CONTACT, AND 40mR/HR AT 1 METER. THE PACKAGE WAS BROUGHT TO THE VA MEDICAL CENTER BY TAXI, WITH A PHYSICIST FROM THE NEMC ACTING AS COURIER. THE LICENSEE HAS CONTACTED THE NEW ENGLAND MEDICAL CENTER REGARDING THIS EVENT, AND PLANS TO CONTACT NRC REGION I.

Doe Jenny

DCS No.: 03001815960923
Date: September 24, 1996

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PN1-068

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region I staff on this date.

Facility:
Veterans Affairs Medical Center
150 South Huntingdon Avenue
Boston, Massachusetts 02130

Licensee Emergency Classification:
_____Notification of Unusual Event
_____Alert
_____Site Area Emergency
_____General Emergency
__X__Not Applicable

Docket No.: 030-01815
License No.: 20-00671-02
Event No.: 31047
Event Location Code: H

SUBJECT: HIGH EXTERNAL RADIATION LEVELS FROM A PACKAGE CONTAINING RADIOACTIVE MATERIAL

At approximately 4:30 p.m. on September 23, 1996, the licensee called the NRC Operations Center to report high radiation exposure levels from a package (cylinder) containing radioactive material. The licensee reported radiation levels of 40 millirem per hour(mR/hr) at 1 meter from the package and 400 mR/hr at the surface of the package. The package contained 15 iridium-192 sources packed in a ribbon with total activity of approximately 44 millicuries.

The package was shipped to New England Medical Center by Best Industries via Federal Express and was surveyed upon receipt by New England Medical Center (NEMC). The package survey results were 0.3 mR/hr at 1 meter and 5.0 mR/hr at the surface which were consistent with the Transport Index (T.I.) of 0.3 as measured by the vendor, Best Industries, before shipping the package. Best Industries radiation safety staff informed Region I that they surveyed the package at all sides and the maximum contact radiation level was 6 mR/hr and the T.I. was 0.3.

The iridium ribbon was taken out by a physicist at NEMC, its activity was measured and the source was placed back in the same transport package, to be hand-carried by the physicist, to the VA Medical Center, Boston, in a taxi cab. The package was surveyed prior to its transport to the VA Medical Center and readings were 0.3 mR/hr at 1 meter and 5.0 mR/hr at the surface of the package. During the approximately half-hour taxi ride, the package had been placed in the trunk of the vehicle in the upright position with radiation pointing downwards. The Radiation Safety Officer (RSO) at the VA Medical Center, Boston, performed exposure measurements of the package and stated that the unexpectedly high radiation levels (400 mR/hr at contact and 40 mR/hr at 1 meter) were emanating only from the bottom of the cylinder. The RSO added that all other measurements taken on the package were consistent with a T.I. of 0.3 and 5 mR/hr at contact as reported by NEMC. NEMC did not perform exposure rate measurements at the bottom of the package.

20.1906 LER report needed?

9609250225 3pp

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NRR** (Phone Verif: Violet Bowden 415-1168 or 415-1166)
SECY

Regional Offices _____ RI Resident Office _____

Licensee: _____
(Reactor Licensees)

** General list for sending PNs by FAX

Region I Form 83
(Rev. August 1996)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

November 13, 1996

EA 96-398

Ms. Mary Schneider
Administrative Director, Radiology
New England Medical Center
171 Harrison Avenue
Boston, Massachusetts 02111

SUBJECT: NOTICE OF VIOLATION
(NRC Inspection Report No. 030-01868/96-002)

Dear Ms. Schneider:

This letter refers to the NRC inspection conducted on September 24 and 25, 1996, at your facility in Boston, Massachusetts. The purpose of this inspection was to determine whether activities authorized by your license were conducted safely and in accordance with NRC requirements, and to review the circumstances surrounding the receipt of a package containing NRC licensed radioactive material by your staff and transportation of this package by taxi to the Department of Veterans Affairs Medical Center (DVAMC) also located in Boston, Massachusetts. During the inspection, apparent violations of NRC requirements were identified, and were described in the NRC inspection report transmitted with our letter dated October 23, 1996. On November 7, 1996, a Predecisional Enforcement Conference was held with you and other members of your staff to discuss the incident, apparent causes, and corrective actions to prevent recurrence. A copy of the Predecisional Enforcement Conference Report will be sent to you by separate correspondence at a later date.

Based on the information developed during the inspection, and the information provided during the conference, the NRC has determined that violations of NRC requirements occurred. These violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding them are described in detail in the subject inspection report. The first violation involves your failure to comply with 49 CFR 173.441(a) in that, you failed to assure that a package of radioactive material for shipment was prepared such that the radiation level did not exceed 200 millirem per hour at any point on the external surface of the package. Compliance with 49 CFR 173.44(a) is required by NRC regulations in 10 CFR 71.5(a). Specifically, on September 23, 1996, your medical physicist transported in the trunk of a taxi a package containing 44 millicuries of iridium-192 (15 seeds in a ribbon) to the DVAMC in Boston, and upon arrival of that package at the DVAMC, a survey of the package by the DVAMC staff indicated that the radiation level at the bottom of the package was 400 millirem per hour. The second violation involves your failure to perform, at NEMC prior to the transfer to the DVAMC, an adequate survey of the package as required by 10 CFR 20.1501 to assure compliance with exposure limits for members of the public in 10 CFR 20.1302. Although no exposure above 0.002 rem in one hour to a member of the public had occurred, it was fortuitous that the package was always handled in the upright position with the high exposure rates (400 mR/hr at contact and 40 mR/hr at one meter) emanating from the bottom of the package towards the ground and the bottom of the taxi cab trunk.

The NRC is particularly concerned with your failure to perform an adequate survey prior to transporting the package, because such failures have the potential to cause unnecessary exposure to members of your staff, the staff at the receiving facility, and members of the public while the package is in transport. Since these violations involved radiation levels in excess the NRC limit (although less than five times the limit), the violations are classified in the aggregate at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $2,500 is considered for a Severity Level III violation or problem. Because New England Medical Center has not been the subject of an escalated enforcement action within the last two years or two inspections, the NRC considered whether credit was warranted for corrective action in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit for corrective action is warranted because your actions were both prompt and comprehensive. These actions included, but were not limited to: (1) creating a revised survey form for packages containing radioactive material; and (2) providing extensive training, to all staff who receive and ship packages containing radioactive material, in the procedure for surveying packages and use of the revised survey form.

Therefore, to emphasize prompt identification and comprehensive correction of violations when they exist, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and any response will be placed in the NRC Public Document Room (PDR).

Sincerely,

Hubert J. Miller
Regional Administrator

Docket No. 030-01868
License No. 20-03857-06

Enclosure: Notice of Violation

cc w/encls:
Commonwealth of Massachusetts

ENCLOSURE

NOTICE OF VIOLATION

New England Medical Center
Boston, Massachusetts

Docket No. 030-01868
License No. 20-03857-06
EA 96-398

During an NRC inspection conducted on September 24 and 25, 1996, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," the violations are listed below:

A. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

49 CFR 173.441(a) requires, in part, with exceptions not applicable here, that each package of radioactive materials offered for transportation be designed and prepared for shipment so that under conditions normally incident to transportation the radiation level does not exceed 200 millirem per hour at any point on the external surface of the package.

Contrary to the above, on September 23, 1996, a package offered for transportation was not prepared for shipment such that radiation levels did not exceed 200 millirem per hour on the external surface of the package. Specifically, the licensee shipped a package containing 44 millicuries of iridium-192 by common carrier vehicle (not designated as exclusive use) and the radiation level measured at a point on the external surface of the package was approximately 400 millirem per hour. **(01013)**

B. 10 CFR 20.1501 requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present.

Pursuant to 10 CFR 20.1003, *survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation.

10 CFR 20.1302 requires, in part, that if an individual were continuously present in unrestricted areas, the dose from external sources would not exceed 0.002 rem in an hour.

Contrary to the above, as of September 23, 1996, the licensee did not make surveys to assure compliance with 10 CFR 20.1302, Dose limits for individual members of the public. Specifically, the licensee failed to adequately survey a package which was transported in a taxi cab from the New England Medical Center to the Department of Veterans Affairs Medical Center. Fortuitously, no exposures of personnel of greater than .002 rem in one hour had occurred. **(01023)**

These violations represent a Severity Level III problem (Supplements IV and V).

Pursuant to the provisions of 10 CFR 2.201, New England Medical Center is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, or proprietary information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the disclosure of the information will create an unwarranted invasion of personal privacy or provide the confidential commercial or financial information).

Dated at King of Prussia, Pennsylvania
this 13th day of November 1996

New England Medical Center

December 2, 1996

Reply to a Notice of Violation

EA 96-398
Inspection No. 030-01868/96-002
License No. 20-03857-06

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington D.C. 20555

Gentlemen:

Following is our response to the above referenced notice of violation. The violations involved the failure to measure a 400 mR/hr radiation level on the bottom of a radioactive shipment being transported by taxi between authorized hospitals in Boston plus the resultant failure to comply with shipping regulations due to the excessive dose rate. Although measurements around the sides and top of the container both upon receipt and reshipment were in agreement with the recorded measurements of the original supplier, no bottom measurement was made due to the weight and configuration of the package. Actions taken to prevent recurrence include providing extensive training in procedures for surveying packages to all staff who receive or ship such packages, plus the creation of a revised survey form for packages of radioactive material that specifically requires a radiation measurement entry for all six surfaces of the package. These actions were taken immediately after the incident was discovered and full compliance has been achieved since the September 24 date of the inspection.

Please don't hesitate to contact F.X. Massé at 617-253-9217 if you have any questions.

Yours truly,

F.X. Massé, CHP, CMP
RSO and Chairman RSC

Mary Schneider
Administrative
Director, Radiology

F.X. Massé, C.H.P., C.M.P.
Radiation Safety Officer

Thomas McMahon
Health Physics Section Head
Associate Radiation Safety Officer

NEMC #787
750 Washington Street
Boston, Massachusetts 02111

Tel: (617) 636-6168
Fax: (617) 636-7777

FXM/nlm
c: Regional Administrator, Region I

The principal teaching hospital for
Tufts University School of Medicine

New England Medical Center

December 2, 1996

Reply to a Notice of Violation

EA 96-398
Inspection No. 030-01868/96-002
License No. 20-03857-06

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington D.C. 20555

F.X. Masse, C.H.P., C.M.P.
Radiation Safety Officer

Thomas McMahon
Health Physics Section Head
Associate Radiation Safety Officer

NEMC #787
750 Washington Street
Boston, Massachusetts 02111

Tel: (617) 636-6168
Fax: (617) 636-7777

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Please don't hesitate to contact F.X. Massé at 617-253-9217 if you have any questions.

Yours truly,

F.X. Massé, CHP, CMP
RSO and Chairman RSC

Mary Schneider
Administrative
Director, Radiology

9612160333 2pp

FXM/nlm
c: Regional Administrator, Region I

The principal teaching hospital for
Tufts University School of Medicine

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Report No. 030-01868/96-002 Program Code 02110

Docket No. 030-01868

License No. 20-03857-06 Priority 1 Category G1

Licensee: New England Medical Center
171 Harrison Avenue
Boston, MA 02111

Facility Name: New England Medical Center

Inspection At: New England Medical Center
171 Harrison Avenue

Department of Veterans Affairs Medical Center
South Huntington Avenue
Boston, MA 02130

Inspection Conducted: September 24 and 25, 1996

Inspectors: _____ Oct 22, 1996
David Everhart date
Health Physicist

Approved By: _____ 10/22/96
Mohamed M. Shanbaky, Chief date
Nuclear Materials Safety Branch 1
Division of Nuclear Materials Safety

Inspection Summary: A special limited inspection of the circumstances surrounding the transportation of Iridium-192 seeds from the New England Medical Center, Boston, to the Department of Veterans Affairs Medical Center, Boston, on September 23, 1996. (Inspection Report No. 030-01868/96-002)

Areas Inspected: Organization and Scope of Licensed Activity and Chronology of Events.

Results: Based on the results of this inspection, it appears that there are two possible violations of NRC regulations: 1) the license failed to perform an adequate survey that may be necessary to evaluate the potential radiological hazard that could be present (Section 3); and 2) the licensee prepared a package for shipment, and the radiation level at a point on the external surface of the package exceeded the Department of Transportation radioactive package limit of 200 millirem per hour (mR/hr) (Section 3).

DETAILS

1. Persons Contacted

New England Medical Center, Boston, MA
* Mary Schneider, Administrative Director, Radiation Oncology
* Francis X. Masse, Radiation Safety Officer (RSO)
* Thomas McMahon, Associate Radiation Safety Officer
  Kenneth Ulin, Medical Physicist

Department of Veterans Affairs Medical Center, Boston, MA
  Mark Walsh, RSO

Red Cab Company
  John Valmas, Superintendent
  Tom Hirth, General Supervisor
  Samuel Edokpolor, Driver

2. Organization and Scope of Licensed Activities

New England Medical Center, (NEMC) Boston, Massachusetts is a Type-A medical licensee of Broad Scope. The Department of Veterans Affairs Medical Center, (DVAMC) Boston, Massachusetts is also a Type-A medical licensee of Broad Scope. Each license authorize use of NRC licensed material for clinical and research and development use at their respective facilities. The inspector noted that the DVAMC contracts with an NEMC Medical Physicist with regard to brachytherapy treatment planning and oversight. The DVAMC RSO stated that this is due, at least in part, to the infrequent performance of these procedures at DVAMC and the extensive NEMC experience in this area. Specifically, the DVAMC has performed only two of these procedures since March of 1995. Under this arrangement, the radioactive material is received at NEMC where the activity is measured. The material is re-packaged and transported to the DVAMC for patient treatment.

3. Chronology of Events

On Monday, September 23, 1996, NEMC received one ribbon containing 15 seeds with a total activity of approximately 44 millicuries of Iridium-192. The ribbon arrived in a metal "can" with an internal lead column containing the ribbon. The lead column was fabricated with a large center hole for returning the used ribbons and approximately 16 small holes in a concentric arrangement around the larger center hole where the ribbons are placed during shipment from the manufacturer. The smaller holes are angled to allow for shielding from the top and bottom of the shield when the sources are properly positioned in the hole. There is an outer one quarter to three eighth inch shell which extends one half inch below the inner shield at the bottom. Upon receipt at NEMC, the can was placed on a counter in a restricted area and surveyed on the sides and the top of the container. A survey of the bottom of the can was not performed. The survey was performed with a Ludlum 14C with a Model 44-8 "pancake" probe.

The inspector noted that NEMC has a dose calibrator, calibrated to milligram-Radium equivalents, which is used to measure the total activity and thereby calculate the average activity per seed. The inspector noted that quality control tests were performed for the dose calibrator. The licensee stated that they opened the package and using proper radiation safety procedures, placed the ribbon in the specially adapted container, inside the dose calibrator for measurement. The ribbon was then returned into one of the smaller outer holes in the shielded container in which the material was received. The excess ribbon was taped to the outside of the container. The licensee stated that a conscious effort was made to return the ribbon to the same configuration as it was received including the original insertion depth within the shield.

NEMC then performed a survey of the top and sides of the package prior to shipping the package to the DVAMC but again did not perform any measurements of dose rates from the bottom of the package. The results of the survey were documented on the "Outgoing Shipment" Log and on the "Radioactive Material Shipment Form." The Transportation Index was entered as 0.3. The exposure rate at the surface was noted as 5.0 millirem per hour (mR/hr) and the reading at 1 meter, 0.3 mR/hr. The inspector discussed the inadequacies in performing the required radiological surveys of the package with the licensee. The failure to perform an adequate survey of the package is an apparent violation of 10 CFR 20.1501, failure to evaluate the potential radiological hazard that could be present.

NEMC then called the Red Cab Company and requested a cab be sent to the hospital to transport a radioactive material shipment to the DVAMC. The NEMC Medical Physicist carried the package to the front of the Medical Center and placed the package in the trunk of the Red Cab and accompanied the package to the DVAMC. The NEMC Medical Physicist stated that the cab was a "full size" automobile. The container remained upright throughout the trip. The trip lasted approximately 15 to 30 minutes. The NEMC Medical Physicist carried the package into the DVAMC and the package was taken from the NEMC Medical Physicist by the DVAMC Radiation Safety Officer (RSO).

Upon receipt at the DVAMC, the DVAMC RSO took the package to a restricted area and performed a survey on all sides of the package, including the top and bottom. The survey was documented on the "Radioactive Shipment Ordering and Receipt Record which indicates that the highest readings from the package were 40 mR/hr at a meter and 400 mR/hr at contact from the bottom of the package. This is an apparent violation of 49 CFR 173.441(a) which requires in part that any package prepared for shipment shall not exceed 200 mR/hr at any point on the external surface of the package. The DVAMC RSO contacted NEMC and discussed the reason for the elevated readings. The RSO opened the package and found one seed protruding through the small hole in the bottom of the shielding. When the ribbon was pulled into the proper position, the readings were 0.3 mR/hr at a meter and 5 mR/hr at contact.

The RSO notified the NRC and final carrier (Red Cab Co.) in accordance with 10 CFR 20.2203(a)(3)(ii). The inspector contacted two managers and the driver at the Red Cab Company and reiterated that the dose received by the driver was not significantly above background and that there was no removable contamination from the package. The inspector informed the cab company management and the driver that they could call the NRC or DVAMC if there were any questions with regard to radiation exposure and contamination.

The inspector noted that although there was a dose rate emanating from the bottom of the package of approximately 40 mR/hr, at no time was an individual continuously present such that they could receive a dose in excess of 2 mR in an hour due to the inaccessibility of the bottom of the bottom of the package. The inspector noted that with the exception of the time when the package was in the trunk of the cab, the package was under the direct physical control of a trained radiation safety employee. The licensee stated that subsequent to the incident and prior to the arrival of the inspector, individuals likely to prepare packages for shipment were trained in the proper method for performing a survey.

Exit Meeting

An exit meeting was held with the individuals noted in Item 1.0.

NMSS LICENSEE EVENT REPORT

License No. 20-00671-02

Docket No. 030-01815

MLER-RI 96-56

LICENSEE Veterans Affairs Medical Center

EVENT DESCRIPTION High radiation levels at bottom of package shipped to the VA from New England medical center.

EVENT DATE 7/23/96 REPORT DATE 12/20/96

1. REPORTING REQUIREMENT

( ) 10 CFR 20.2201 Theft or Loss
( ) 10 CFR 20.2203 30 Day Report
( ) 10 CFR 30.50 Report
( ) 10 CFR 35.33 Misadministration
( ) License Condition

(✓) Other 10 CFR 20-1906

2. REGION I RESPONSE

( ) Immediate Site Inspection Inspector/Date

(✓) Special Inspection Inspector/Date

( ) Telephone Inquiry Inspector/Date

(✓) Preliminary Notification
(✓) Information Entered on the Region I Log
( ) Review at Next Routine Inspection
( ) Report Referred to
( ) Daily Report

3. REPORT EVALUATION

(✓) Description of Event
(✓) Levels of RAM Involved
(✓) Cause of Event
( ) Corrective Actions
( ) Calculation Adequate
( ) Letter to Licensee Requesting Additional Information

4. SPECIAL INSTRUCTIONS OR COMMENTS

Completed by Judith A. Joustra Date 1/21/97

Reviewed by Date 1/21/97

g:\las\mlerform.0/1
(Revised 1/6/95)

070085

IE72