



DEPARTMENT OF VETERANS AFFAIRS
Veterans Health Administration
National Health Physics Program
2200 Fort Roots Drive
North Little Rock, AR 72114

FEB 11 2010

In Reply Refer To: 598/115HP/NLR

Cassandra F. Frazier
Division of Nuclear Materials Safety
Region III, Nuclear Regulatory Commission (NRC)
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

Re: NRC License 03-23853-01VA

Dear Ms Frazier:

I am enclosing for your information a recent revision to SOP 5, "National Health Physics Program (NHPP) Incident Response Procedure," that is dated December 14, 2009.

The National Radiation Safety Committee approved the revision on February 3, 2010, at their quarterly meeting. The revision has administrative changes that do not require an amendment to the master materials license.

Please contact me if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary E. Williams".

Gary E. Williams
Interim Director, National Health Physics Program

Enclosure

RECEIVED FEB 16 2010

NATIONAL HEALTH PHYSICS PROGRAM (NHPP) INCIDENT RESPONSE PROCEDURE

NOTE: This standard operating procedure (SOP) has administrative changes to ensure conformance with revisions to 10 CFR 35. Prior changes, that were in the February 20, 2004, version have been incorporated into this SOP. The current changes for this revision only are highlighted and indicated using the format of a strikethrough for the previous information with the new correct information immediately following. The SOP has been modified to delete a reference to the Radiation Internal Dose Information Center, which no longer exists; update NHPP staff call list; update 24-hour emergency number, delete VHA Handbook 1105.1 which has been rescinded; and update the Web address for state radiation control program officials.

1. PURPOSE AND SCOPE: This SOP describes procedures for responding to incidents involving radioactive material that occur at facilities holding VHA Master Material License (MML) permits. The term *incidents* is used herein to describe events involving radioactive material, as defined in Nuclear Regulatory Commission (NRC) IMC 1301, and events such as fires and explosions involving radioactive material, lost or stolen radioactive material, radioactive material spills, radioactive material releases that exceed permissible limits, personnel radiation exposures that exceed permissible limits, personnel contamination with radioactive material, and medical events as defined in 10 CFR 35.2. The term *incidents* includes all events that must be reported to NRC pursuant to 10 CFR 20.1906(d), 20.2201, 20.2202, 20.2203, 21.21, 30.9(b), 30.50, 35.3045, 35.3047, and 35.3067.

2. INITIAL RESPONSE TO INCIDENTS: Initial response to incidents is the responsibility of each MML permittee. Each permittee shall be prepared to respond to incidents, commensurate with the scope of radioactive material use at the facility, and shall respond to such incidents. Each MML permittee shall have a mechanism to notify the facility's Radiation Safety Officer (RSO) or designated backup personnel of incidents, both during and outside of normal working hours. Furthermore, each MML permittee shall train facility personnel working with radioactive material in precautions to prevent incidents, response to likely incidents such as spills and personnel contamination, and how to contact the RSO or designated backup personnel in case of an incident. Initial actions in response to an incident necessary to protect patients, members of the public, and staff, and to minimize the scope of the incident shall take priority over reporting requirements.

3. REPORTING OF INCIDENTS BY MML PERMITTEES TO NHPP: Procedures for reporting incidents, emergencies, and medical events by MML permittees to NHPP is described in the VHA Handbook, Directive 1105.01, "Management of Radioactive Materials ~~in the VHA.~~"

a. Each MML permittee shall report incidents that are described in 10 CFR 20.1906(d), 20.2201, 20.2202, 20.2203, 21.21, 30.9(b), 30.50, 35.3045, 35.3047, and 35.3067 to NHPP. MML permittees must make their reports to NHPP within the time limits in Column 2 of Table 1. Table 2 provides a partial list of topics and cross references applicable NRC regulations. MML permittees are not required to make reports directly to NRC. Instead, NHPP will make reports to NRC.

Table 1

NRC Reporting Requirement (10 CFR 20, 21, 30, 35)	Requirement for Permittee to Report to NHPP
Immediate	Immediate
24 hours	24 hours
next calendar day (notification of a medical event)	next calendar day
2 days	2 days
5 days (leakage of a sealed source)	5 days
15 days (report on a medical event)	15 days
30 days	25 days
60 days	50 days

Table 2

NRC Regulation	Topic
10 CFR 20.1906(d)	Receipt of package with excessive contamination or radiation levels
10 CFR 20.2201	Theft or loss of radioactive material
10 CFR 20.2202	Incidents
10 CFR 20.2203	Exposures, radiation levels, and concentrations exceeding constraints or limits
10 CFR 21.21	Defects and noncompliance
10 CFR 30.9(b)	Receipt of information having significant implication for public health and safety
10 CFR 30.50	Various events
10 CFR 35.3045	Medical event
10 CFR 35.3047	Dose to an embryo/fetus or a nursing child
10 CFR 35.3067, license condition	Leakage of a sealed source

b. Mechanism for reporting to NHPP.

Immediate reports – When an immediate report is required, reports during normal working hours shall be made by telephone to the appropriate NHPP Service Area office or the NHPP National Director’s Office. Outside of normal working hours or if an NHPP staff member cannot be reached during normal working hours, call the NHPP telephone operator emergency contact service at (888) 887-0079 800-815-1016 and ask for an NHPP staff member to be paged contacted. Tell the operator your name, a call-back telephone number, and your facility name. Telephone reports must be made directly to an NHPP staff member; it is not sufficient to leave a recorded message.

c. Permittees shall also notify NHPP of incidents in which the permittee’s radiation safety organization requires assistance. When in doubt as to whether a report is required, a permittee shall contact an NHPP program manager or the Radiation Control Program Officer (RCPO).

4. NHPP RESPONSE TO INCIDENT REPORTS

a. The NHPP program manager or RCPO receiving the initial report shall record relevant information regarding the incident. The program manager or RCPO shall next ascertain whether adequate measures have been taken to protect the health of involved patients, employees, and members of the public. The program manager or RCPO shall then ascertain whether adequate measures have been taken to prevent further violations of regulations, MML license conditions, or MML permit conditions. If the program manager or RCPO believes adequate measures have not been taken, advice shall be provided regarding such measures.

b. An NHPP program manager receiving an incident report shall attempt to promptly notify the RCPO.

c. The RCPO shall decide whether an NHPP inspector or team, including one or more inspectors, should be sent to the facility either immediately or in the near future. (NOTE: Reactive inspections will be performed for all medical events.) The inspector or team may be sent to assist the permittee in handling an emergency, as a reactive inspection, or for both purposes. Reactive inspections shall be conducted in accordance with NRSC SOP 02, “NHPP Inspection Procedures.” The criteria in NRC IMC 1301, Section 06.03c, will be used to determine whether to initiate a reactive inspection. These criteria are summarized in Appendix B, “Guidance for Evaluating Incidents.” In cases in which an inspector is not dispatched immediately, the RCPO will consider whether the incident requires inspection attention before the next routine inspection, based upon an evaluation of its safety significance.

d. If a physician is needed for the team, the Director, National Nuclear Medicine & Radiation Safety Service, will be contacted. If a therapeutic radiological physicist or other technical consultant is required, one will be recruited from a VA medical facility or consultant services will be obtained.

e. NHPP will report incidents to NRC as required by NRC regulations and the MML conditions. NHPP will further notify state officials when events affect or occur in locations outside VA property or jurisdiction, such as offsite contamination. A list of state radiation control program officials, such as that available at www.hsrp.ornl.gov/nrc/asframedirectr.htm, <http://nrc-stp.ornl.gov/asdirectory.html>, and <http://www.crcpd.org>, will be maintained at each NHPP office.

f. If an NHPP program manager believes a confirmatory action letter (CAL) or an order is required to protect patients, employees, or members of the public or to prevent further violations, the manager shall contact the RCPO, who may issue a CAL or an order.

g. Reactive inspections will be conducted, including the identification of incident causes and violations; reports will be prepared; and NHPP management will be kept apprised of inspection progress and status of the incident in accordance with NRSC SOP 02, "NHPP Inspection Procedures."

h. When a reactive inspection is not initiated, an inspector will review the incident, permittee's response to it, and corrective action taken during the next routine inspection.

i. All incidents that must be reported to NRC pursuant to NRC regulations will be listed in a tracking system. The tracking system will describe the status of an incident as "open" until NHPP has verified adequate corrective action has been taken.

j. NHPP staff shall make every reasonable effort in obtaining information and conducting reactive inspections not to hinder permittee efforts to recover from the incident.

5. NHPP PREPAREDNESS FOR RESPONDING TO INCIDENTS

a. Each NHPP program manager and the RCPO shall maintain a set of calibrated portable radiation survey instruments. Each set shall include a thin-window pancake-type GM survey meter suitable for surface contamination surveys, and a meter with a linear energy response capable of measuring exposure rates in the range from 1 mR/h to over 1.0 R/h. Additional survey instruments can be obtained from various VA medical facilities. Sample counting equipment, such as gamma well counters, liquid scintillation counters, multi-channel analyzers for gamma ray spectroscopy, and sodium iodide thyroid probes are available for use at various VA medical facilities. Each NHPP program manager will maintain reference materials regarding emergencies and incidents, including a set of NRC regulations, relevant regulatory guides and NUREGs such as NUREG/CR 6345, and NCRP Report No. 65.

b. Organizations external to the VA can be contacted for advice and assistance. Table 3 lists a few contacts.

Table 3

Organization	Telephone	Resources
Radiation Emergency Assistance Center/Training Site (REAC/TS)	865-576-3131 Emergency Number 865-576-1005 (Ask for REAC/TS)	Advice and assistance with major radiation emergencies, including medical management of exposed or contaminated persons
Armed Forces Radiobiology Research Institute (AFRRI) Medical Radiological Advisory Team	301-295-0530	Advice and assistance with medical management of exposed or contaminated persons
Radiation Internal Dose Information Center (RIDIC)	423-576-3450	Information regarding dosimetry for radioactive materials in the body
NRC Operations Center	301-816-5100	Immediate reporting of incidents to NRC

c. Each NHPP program manager and the RCPO shall wear a long-range pager or cellular telephone.

d. NHPP emergency call mechanism – NHPP ~~telephone operators~~ emergency answering service will have a call list and written procedures. They will contact an NHPP program manager or the RCPO when a call is received from a permittee regarding an incident. ~~Emergency answering service~~ operators will receive training regarding NHPP emergency call procedures.

Appendices

Appendix A - Incident Response Procedures for NHPP ~~Telephone Operators~~ ~~Emergency Answering Service~~
Appendix B - Guidance for Evaluating Incidents
Appendix C - Incident Information Recording Form

APPENDIX A

Incident Response Procedure for NHPP Telephone Operators Emergency Answering Service

When a call is received regarding a radioactive materials incident, including an emergency, spill, contamination, medical event, or lost radioactive material:

1. Immediately record

- a. caller's name
- b. call-back telephone number
- c. facility name

2. Call the first person on the following list. Enter the answering service telephone number ~~888-887-0079~~ 800-815-1016. If after 10 minutes ~~he or she has not called you~~ the call has not been returned, ~~page~~ call the next person on the list until an NHPP staff member calls you.

Name	Cell Phone
Vacant Radiation Control Program Officer	1-501-256-5332
Edwin M. Leidholdt, Ph.D. Southwestern Service Area	1-707-280-8368
Thomas Huston, Ph.D. Southern Service Area	1-501-454-7264
Michael Simmons Northwestern Service Area	1-206-280-7715
Joseph R. Wissing Central Service Area	1-734-497-6499
Paul L. Yurko Eastern Service Area	1-410-935-1302 1-410-232-2780 (Pager)
Gary E. Williams Northwestern Service Area	1-501-256-5331

APPENDIX B

Guidance for Evaluating Incidents

(Adapted from Nuclear Regulatory Commission (NRC) IMC 1301, Section 06-03c)

1. Examples that normally require consideration of immediate dispatch (typically within 2 days) of one or more inspectors for follow-up action, depending on the information available, immediate implications of the accident, and at the discretion of the Radiation Control Program Officer:

- a. Single exposure of an occupational worker in excess of the dose limits in 10 CFR 20.1201.
- b. Loss of control of radioactive material that caused a member of the public to receive an exposure in excess of the limits in 10 CFR 20.1301.
- c. Discovery of Nuclear Regulatory Commission (NRC) NRC licensed material in an unrestricted area (see Section 06.01).
- d. An unplanned contamination event that requires reporting as per 10 CFR 30.50(b), 40.60(b), or 70.50(b), as applicable.
- e. An intake of radioactive material in excess of an annual limit on intake (ALI).

NOTE: In the event that a decision is made not to dispatch an inspector immediately, consideration should be given to conducting a special inspection.

2. Examples that normally require consideration of a special inspection before the next routine inspection may include the following.

- a. Medical events that meet the abnormal occurrence threshold. See NRC MD 8.1, "Abnormal Occurrence Reporting Procedure," and NRC MD 8.10, "NRC Medical Event Assessment Program."
- b. Release of radioactive material to an unrestricted area in excess of 2 times the concentration limits in 10 CFR 20.1302.
- c. Disposal of licensed material in quantities or concentrations in excess of the limits in 10 CFR 20.2003, 20.2004, or 20.2005.
- d. Loss of control of radioactive material that could have caused a member of the public to receive an exposure in excess of the limits in 10 CFR 20.1301.

APPENDIX C

Incident Information Form

1. Date and Time Notified:
2. Person Making Notification:
3. Permittee:

Description of Incident

1. What Happened
2. Dates and Times of Incident and of Discovery:
3. Location(s):

Radioactive Materials Involved

1. VHA Master Materials License:
2. VHA MML Permit:
3. Nature of Material (e.g., sealed sources, etc.):
4. Radionuclide(s) and Activity(ies):
5. Sealed Source Model and Serial Number:
6. Commercial Carrier (if applicable):
7. Radiopharmaceutical Supplier (if applicable):

Description of Corrective Actions

1. Actions Taken to Correct, Abate, and Avoid a Recurrence

2. Additional Actions Planned and Estimated Time to Complete

3. Recommendations/Administrative Guidance Given or Follow-Up Actions Required

Permittee Personnel Responding

Notifications

1. VHA:
2. Federal:
3. State:
4. Local:
5. Press Aware/On Scene/Press Releases Made:
6. Reportable to NRC: in accordance with 10 CFR
7. Telephone Notification: NRC Operations Center 301-816-5100 NRC Region III: 630-829-9500
8. Written Notification:

Additional/Follow-Up Information

Report taken by:

Entered into database:

From: Origin ID: LITA (501) 257-1571
Kelly Mayo
VHA National Health Physics Pr
2200 FORT ROOTS DR
B101 R208D
NORTH LITTLE ROCK, AR 72114



J181802058224

Ship Date: 11FEB10
ActWgt: 0.1 LB
CAD: 5250401/NET3010

Delivery Address Bar Code

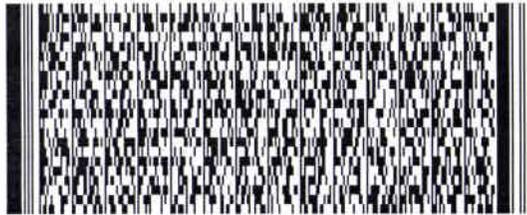


Ref #
Invoice #
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SHIP TO: (501) 257-1571 **BILL SENDER**
Cassandra Frazier
Nuclear Regulatory Commission
2443 Warrenville Road
Suite 210
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