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

JUL 31 2008

In Reply Refer To: 598/115HP/NLR

Cassandra F. Frazier
Division of Nuclear Material Safety
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

Re: NRC License 03-23853-01VA

Dear Ms. Frazier,

I am forwarding the enclosed report regarding Event Number 44219. The report addresses three medical events that occurred at the VA Medical Center, Philadelphia, Pennsylvania, and is submitted pursuant to 10 CFR 35.3045(d). The medical center holds VHA Permit Number 37-00062-07 under our master material license.

A medical event involving three patients was reported to the NRC Operations Center on July 18, 2008. The event involved permanent implant prostate seed brachytherapy.

My staff performed the initial on-site part of a reactive inspection on May 28-29, 2008, and returned on June 24-25, 2008, to evaluate the circumstances of the events, assess initial actions to prevent a recurrence, and assess regulatory compliance. This inspection remains open. At the exit meeting on May 29, 2008, the inspectors asked the medical center to review a sample of additional brachytherapy treatments. This review by the medical center has revealed additional patient procedures that might be medical events. The NRC Operations Center was notified of these additional possible medical events on June 6, 12, 21, 25, and July 2, 8, 10, 15, 18, 22, and July 25, 2008, as amendments to Event Number 44219. This report addresses three of these additional possible medical events.

If you have any questions, please contact me at (501) 257-1571.

Sincerely,

E. Lynn McGuire
Director, National Health Physics Program

Enclosure

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Potential Medical Event - NRC Event Number 44219 Addendum

Notification of a possible medical event per 10 CFR 35.3045:

A brachytherapy procedure in which the administered dose may differ from the prescribed dose by more than 0.5 gray to an organ and the total dose delivered may differ from the prescribed dose by 20% or more.

VA Master Materials License **NRC License No. 03-23853-01VA**

Permittee: VA Medical Center, Philadelphia, PA

Date(s) of Event(s): See IMPLANT DATES below

Date Discovered: July 18, 2008

Date Reported to NHPP: July 18, 2008

Date Reported to NRC: July 18, 2008

Name of Prescribing Physician: Gary Kao, M.D., Ph.D.

Patient XRT #	Implant Date	Original CT Date	# Seeds Recovered	Original * Post Plan	Repeat CT	Re-Contour Date	Repeat Rx Plan
038	9-27-04	9-28-04	0	9-28-04	7-9-08	7-11-08	**7-17-08***
098	9-29-03	9-24-03	0	10- 1- 03	6-28-08	7-3-08	7-17-08
104	11-13-06	11-14-06	0	** See Note	7-2-08	7-3-08	7-17-08

* Prostate dose was prescribed for 145Gy.

** Original CT scan unreadable or data corrupted.

Description of the Event:

Three permanent prostate brachytherapy implant procedures were performed using Iodine-125 seeds on the dates listed above. The activity per seed and number of seeds prescribed in the written directives and used in the original treatment plans were ordered, received and implanted Efforts to retrieve the CT scan for 1 of the above patients were not successful. Patients were scheduled for CT scans in July, 2008. These were re-contoured and post-treatment plans were run. The D90 doses for the above 3 patients were significantly lower (more than -20%) than the planned prostate D90 dose. The original prescribed prostate dose for 1 of the above patients was 145 Gy and not 160 Gy. Dosimetry was recalculated on 7-21-08 and results verified the D90 for both 160 and 145 Gy planned doses were more than 20% low.

As per the nomogram shared with NHPP, VACO, and Dr Giri, Chief, National VA Radiation Oncology Program, the above medical events are confirmed based on recently obtained repeat CT scans.

On July 18, 2008, the RSO and Chief of Radiation Oncology Service reviewed the results for the above patients and determined Medical Events had occurred. On 7-18-08, the RSO notified NHPP of these findings. The data for these patients is being reviewed as part of the causal analysis currently in process.

The prostate brachytherapy program was formally put on-hold in early June, 2008, and remains in stand-down. All identified necessary procedural changes will be implemented to prevent a recurrence before the program is reactivated. These changes will be verified before any brachytherapy procedures are performed.

Why the Event Occurred:

Root causes of event are still under investigation.

Effect on Patient:

Effect on patient is still under review.

Corrective Actions:

- Program is on–hold pending results of investigation
- QA program for Radiation Oncology is under review

Patient notification:

On July 18, 2008, the Chief of Radiation Oncology Service phoned the above 3 patients and their referring physicians, or primary care providers. Patients and referring physicians, and/or primary care providers, were informed the patients received a lower than planned prostate dose, that the patients cases were being reviewed externally by an expert to obtain treatment option recommendations, and that the patients were entitled to receive a written report of the event.

From: Origin ID: LITA (501) 257-1571
Kelly Mayo
VHA National Health Physics Pr
2200 FORT ROOTS DR
B101 R208E
NORTH LITTLE ROCK, AR 72114

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Nuclear Regulatory Commission
2443 Warrenville Road
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Lisle, IL 60532

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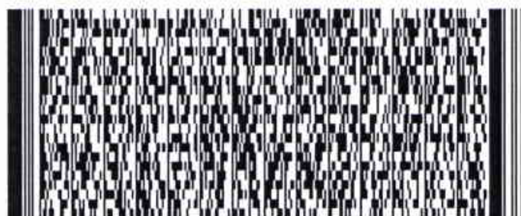

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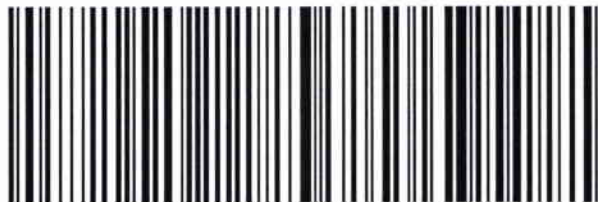

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