



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

**JAN 28 2009**

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 44779. The report addresses a single medical event that occurred at the VA Medical Center, Durham, North Carolina, and is submitted pursuant to 10 CFR 35.3045(d). The medical center holds VHA Permit Number 32-01134-01 under our master material license.

The medical event was discovered by medical center staff on January 15, 2009, and was reported to the NRC Operations Center on the same date. My staff initiated a reactive inspection at the permittee's facility on January 26, 2009, to evaluate the circumstances of the event and assess regulatory compliance. The inspection remains open.

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

Sincerely,

A handwritten signature in black ink, appearing to read "E. Lynn McGuire".

E. Lynn McGuire  
Director, National Health Physics Program

Enclosure

RECEIVED JAN 29 2009

## REPORT OF MEDICAL EVENT

**Permittee:** Durham Veterans Affairs Medical Center

**Prescribing Physician:** James Oleson, M.D.

**Referring Physician:** Cary N. Robertson, M.D.

**Description of Events:** On December 18, 2008, a prostate implant was performed. The plan called for 81 seeds containing 0.36 millicuries each for 29.15 millicuries total. The prescribed dose to the prostate was 145 Gray. A radiograph was taken at the end of the procedure, and it showed no evidence of seeds outside the target volume.

The next morning, a CT of the patient's abdomen revealed that eight implanted seeds had migrated inferior to the prostate. A post-plan D90 dose was less than 80% of the prescribed dose, and the patient was scheduled for a CT on January 15, 2009, in accordance with our procedure for dose evaluation for medical events.

In the interim, a second CT was performed on December 23, 2008, and it showed further migration of seeds. Twelve implanted seeds had migrated inferior to the prostate.

On January 15, 2009, a CT was performed, and it showed no further migration of seeds.

From the post-plan, the dose to the prostate is 82 Gray, 56% of the prescribed dose.

**Why the Event Occurred:** The event occurred because of migration of seeds from the target volume, but the cause of migration is unknown.

**Effect on Patient:** The effect on the patient is expected to be limited to possible mild urethral irritation; and a possible small area of perineal fat necrosis as a late effect. The event will not interfere with other types of treatment, such as a supplemental implant or cryotherapy, which the patient may undergo. The patient is currently asymptomatic.

**Corrective Action:** A published report ("Prostate brachytherapy seed migration and dosimetry: analysis of stranded sources and other potential predictive factors", Donald B. Fuller, James A. Koziol, Anne C. Feng; BRACHYTHERAPY, (2004)) documents that inferior migration occurs, but is a relatively rare event, and no clear mechanism for migration was proposed. Therefore, no corrective action is possible.

**Patient Notification:** Dr. Oleson notified the patient of the event on January 15, 2009.

**Referring Physician Notification:** Dr. Oleson notified the referring physician of the event on January 15, 2009.

Walter Furr  
Radiation Protection Manager

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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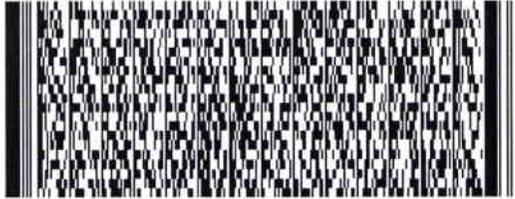
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**Cassandra Frazier**  
**Nuclear Regulatory Commission**  
**2443 Warrenville Road**  
**Suite 210**  
**Lisle, IL 60532**

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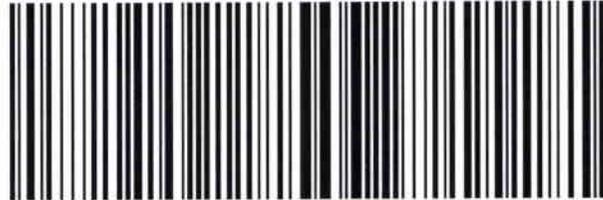
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