



**Brachy Therapy**  
700 Harris Street, Suite 109  
Charlottesville, VA 22903  
USA  
tel +1 434 977 8495  
fax +1 434 244 7181  
www.varian.com

October 11, 2010

Ms. Kathy Modes  
U.S. NRC Region I  
475 Allendale Road  
King of Prussia PA 19406

Re: Event No. 46264 – additional information  
HDR Source stuck out event at Southeast Missouri Hospital, Cape Girardeau, MO

Dear Ms. Modes:

I write to confirm the following:

1. The whole body and extremity badges have been processed by the NVLAP accredited vendor. The badges are OSL badges. The event occurred at the end of the 3rd calendar quarter and the readings include all exposures for that period.
  - Whole body dose: 42 mrem
  - Lens of the eye: 47 mrem
  - Shallow dose: 59 mrem
  - Extremity (ring badge): 90 mrem
2. The service technician was properly wearing his assigned dosimeters: ring badge, whole body badge and electronic dosimeter.
3. The service technician was working in a distance that was 30-50 cm from the source when the event occurred. That is, within arm's range.
4. The source never left the source guide tubing of the HDR unit and it came to rest just outside the body of the tungsten shield of the HDR.
5. The survey of the HDR unit, with the source in the unshielded position, showed an average exposure rate of 165 mr/hr in the working distance that was encountered during the source recovery. This is the dose rate before 1" lead shields were positioned. This is also the area in which the service technician was positioned when the event occurred. The dose rate indicates that the service technician was in the shadow of the tungsten

safe and partially shielded from the full and unshielded source. The source activity was [REDACTED] (Ir-192) at the time of the event.

Very truly yours,

A handwritten signature in black ink that reads "Richard G. Piccolo". The signature is written in a cursive style with a large, looping initial "R".

Richard G. Piccolo, CHP  
Varian BrachyTherapy RSO