THE WESTERN PENNSYLVANIA HOSPITAL

WEST PENN ALLEGHENY HEALTH SYSTEM

4800 FRIENDSHIP AVENUE, PITTSBURGH, PA 15224
412-578-5000

REPORT TO NRC OPERATIONS CENTER
February 2, 2006

NRC Licensee: The Western Pennsylvania Hospital
4800 Friendship Avenue
Pittsburgh, PA 15224

NRC License No: 37-02136-01

Contact: Margaret S. Blackwood, MS, DABR, Radiation Safety Officer
412-578-4247
msblackw@wpahs.org

Willie Lee, Region I NRC, informed West Penn Hospital today that we need to report an operational problem with our High Dose Rate Afterloader (HDR) unit to the Operations Center pursuant to 10 CFR 21.21 and 10 CFR 30.50(b)(2).

On December 1, 2005, Mr. Lee conducted an inspection of our facility. During the inspection we told him about a problem we were having with our HDR unit. On November 18, 2005, during a patient treatment the unit reported a fault during source retraction which reported as a source path constriction. However, the source retracted fully and the error was cleared. The patient received the treatment as prescribed; there was no unintended radiation exposure to the patient. During the following treatment, on November 21, 2005, the error recurred and Varian was contacted to service the unit. The source again retracted fully; the patient received the treatment as prescribed. Varian arrived on November 26, 2005. The engineer repaired that fault, but after the repair, a new problem arose. During post-repair testing by Varian, the inactive wire failed to move from the shielded safe position. Mr. Lee requested that we send him a report of the findings of the manufacturer after the repair was completed.

Varian subsequently sent a new loaner HDR to West Penn, and our HDR unit was returned to the factory in England for repair. We immediately forwarded the Varian Troubleshooting Report to Mr. Lee upon receipt on January 31, 2006. The report from the factory indicated that the cause of the wire not moving was a signal wire that had been improperly stripped at the time of assembly. Over time, this connection oxidized causing a loss of contact for that signal, which was for the drive mechanism. This caused the inactive source wire not to drive out of the safe.

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Although we are reporting this as requested, we respectfully disagree with the NRC interpretation of the 10 CFR 30.50(b)(2) reporting requirement. 10 CFR 30.50(b)(2) states that a 24 hour report is required when "An event in which equipment is disabled or fails to function as designed when: (i) The equipment is required by regulation or license condition to prevent releases exceeding regulatory limits, to prevent exposures to radiation and radioactive materials exceeding regulatory limits, or to mitigate the consequences of an accident; (ii) The equipment is required to be available and operable when it is disabled or fails to function; and (iii) No redundant equipment is available and operable to perform the required safety function." We believe the safety systems of the HDR unit functioned appropriately by reporting the fault. We notified the vendor and requested repair when the fault repeated and discontinued using the HDR unit until it was repaired and tested. No regulatory limits were exceeded; the source did not stick; the safety systems did not fail. We also do not believe this to be a manufacturing defect requiring reporting under 10 CFR 21.21 but defer to the manufacturer and the NRC interpretation.

Please do not hesitate to contact myself or Margaret S. Blackwood, Radiation Safety Officer at 412-578-4247 if you require further information.

Sincerely yours,

Edward M. Klaman

Edward M. Klaman
Senior Vice-President and Chief Operating Officer