Event Detail - Abnormal Occurrence

ITEM #:	050065	**AO #:**	05-01	**AO REPORT:**	NUREG-0090, Vol. 28
TITLE:	Medical Event at the University of Minnesota in Minneapolis, Minnesota				
NAME:	University of Minnesota				
DATE:	01/24/2005	**CITY:**	Minneapolis	**STATE:**	MN

Criteria:

Criterion IV, "For Medical Licensees," of Appendix A to this report states, in part, that a medical event that results in a dose that is (1) equal to or greater than 1 Gy (100 rads) to a major portion of the bone marrow, to the lens of the eye, or to the gonads or (2) equal to or greater than 10 Gy (1,000 rads) to any other organ; and represents a prescribed dose or dosage that is delivered to the wrong treatment site will be considered for reporting as an AO.

Nature and Probable Consequences:

The licensee reported that a patient being treated for cervical cancer received an incorrect dose distribution. One area of the cervix received 8.21 Gy (821 rads) instead of the intended 16.43 Gy (1,643 rads). Another area of the cervix received 3.72 Gy (372 rads) instead of the intended 4.65 Gy (465 rads). Additionally, other locations received higher than intended doses. The intended doses to the bladder and the rectum were 11.47 Gy (1,147 rads) each, but they received 14.48 Gy (1,448 rads) and 20.12 Gy (2,012 rads), respectively. The treatment involved an applicator with an insert which contained low-dose radiotherapy sources. The licensee cut the insert 6 centimeters (cm) too short so that when the applicator was positioned in the patient's cervix, the three cesium-137 (Cs-1 37) sources were not extended the proper distance. The referring physician and patient were informed of this event. The licensee does not believe that this event will have any adverse health effects on the patient. The patient subsequently received a follow-up treatment to deliver the full intended dose to the treatment sites.

Cause:

This event was caused by human error. The incorrect dose was administered to the incorrect location.

Licensee Action:

Corrective actions taken by the licensee included stopping all low dose-rate treatments until all individuals are trained, and modifying their procedures to incorporate a dual verification system.

NRC Action:

Other Agency Action: