

January 28, 2005

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-05-002**

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region III staff on this date.

**Facility**

University of Minnesota  
Minneapolis, MN

License No: 22-00187-46

**Licensee Emergency Classification**

Notification of Unusual Event

Alert

Site Area Emergency

General Emergency

Not Applicable

SUBJECT: MEDICAL EVENT INVOLVING UNDER DOSE TO TREATMENT AREA

DESCRIPTION:

On January 25, 2005, a patient undergoing a 31-hour treatment procedure for cervical cancer received less than the prescribed radiation dose to the treatment area and greater than the intended dose to other tissues.

The treatment involved the use of a low dose rate tandem-ovoid brachytherapy device containing five sealed radiation sources. The tandem portion of the device required an insert to position three of the sources within the tandem. Licensee staff cut the insert 6 centimeters short, and as a result the three sources were not extended the proper distance inside the tandem used to treat the patient. The other two ovoid sources were positioned as intended.

Two treatment sites were involved. The first treatment site received 821 rads, about 50 percent of the intended dose. The second site received 372 rads, about 80 percent of the intended dose. Nearby tissue and organs received up to 175 percent of the expected dose due to the mis-positioning of the sources in the tandem.

The patient and referring physician have been notified. The licensee does not believe the medical event will have any adverse effect on the patient. The patient subsequently received a followup treatment to deliver the full intended dose to the treatment sites.

An NRC Region III inspector will be at the licensee's facility in Minneapolis, Minnesota, on Monday, January 31, 2005, to review the circumstances surrounding this event. An NRC medical consultant will provide an independent medical evaluation of the probable deterministic effects of the radiation exposures.

The Office of Nuclear Materials Safety and Safeguards and the State of Minnesota have been notified. The information in this preliminary notification has been reviewed with licensee management.

The licensee reported this event to the NRC Operations Center at 12 noon (CST) on January 27, 2005. This information is current as of 10 a.m. (CST) on January 28, 2005.

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