January 29, 2003

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-03-003

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
William Beaumont Hospital
William Beaumont Hospital
Royal Oak, MI
Docket: 030-02006
License: 21-01333-01

Licensee Emergency Classification
___ Notification of Unusual Event
___ Alert
___ Site Area Emergency
___ General Emergency
_x_ Not Applicable

SUBJECT: Medical Event (Overdose)

DESCRIPTION:

On January 28, 2003, William Beaumont Hospital notified the NRC of a medical event involving the use of strontium-90 (Sr-90) during an intravasuclar brachytherapy (IVB) treatment. The patient was undergoing the Sr-90 IVB treatment for cardiac restenosis in the right coronary artery. The original treatment plan involved a 40 millimeter Sr-90 source train utilizing a 3.5 french (Fr) catheter with a treatment time of 4 minutes, 31 seconds.

During treatment, the radiation oncologist experienced difficulty with the device and retracted the source train. Licensee staff determined that the Sr-90 sources were stuck slightly outside of the device, resulting in no dose to the patient. The radiation oncologist decided to proceed with the treatment using a larger, 5 Fr catheter, and revised the treatment time noted on the written directive to 3 minutes, 41 seconds. However, licensee staff did not revise the treatment time entered in the stopwatch and administered the procedure according to the original treatment time of 4 minutes, 31 seconds. The extra 50 seconds of treatment time resulted in a dose of 28.2 Gray (Gy), rather than the prescribed 23 Gy, which constitutes a 22.6 percent overdose to the treatment site. The patient and the referring physician were informed of the error on the same day. No adverse effect to the patient is expected. The hospital is taking corrective actions to prevent recurrence of the problem.

The NRC will conduct a special inspection on January 30, 2003, to review the circumstances surrounding the event.

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

The licensee notified the NRC Operations Center of this event at 5:27 p.m. EST on January 28, 2003. This information is current as of 11 a.m. CST on January 29, 2003.

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