50-2

OSEH
Occupational Safety & Environmental Health

University of Michigan
Occupational Safety & Environmental Health
Campus Safety Services Building
1239 Kipke Drive, Ann Arbor, MI 48109-1010
Phone: 734 647-1143 • Fax: 734 763-1185

Terrance G. Alexander, Director

March 1, 2002

U.S. Nuclear Regulatory Commission
Document Control
11555 Rockville Pike
Washington, D.C. 20852

RE: **Reported Occupational Dose in Excess of 10 CFR 20.1201(a)(2)(ii) Limits**

Document Control:

The University of Michigan (U-M) is submitting this report in accordance with 10 CFR 20.2203(a)(2) under NRC License Number R-28 (U-M Ford Nuclear Reactor). The NRC Operations Center was notified on February 4, 2002.

On February 1, 2002, the U-M Radiation Safety Officer identified that an individual had received an apparent extremity dose of 72,640 millirem during the dosimeter wear period of October 15, 2001 to November 14, 2001. In accordance with 10 CFR 20.1201(a)(2)(ii), the annual dose limits to the extremities is 50,000 millirem. The U-M ALARA Level II investigation limit for extremity exposures is 1250 millirem per month.

Both the individual and the U-M Radiation Safety Service (RSS) / OSEH health physics staff investigated the apparent extremity exposure during the month-long dosimeter wear period and have concluded that the reported extremity dose is likely a reporting error and not a true dose to the individual. The individual did not perform or participate in any activities that could have resulted in a right-hand extremity dose of 72,640 millirem.

The U-M RSS/OSEH staff consulted with Landauer technical personnel and concluded that, after evaluating the TLD glow curve, the apparent dose to the finger ring TLD chip did result from an ionizing radiation exposure. However, it is inconclusive and highly unlikely, that the dose reported for that particular finger ring dosimeter was received at the U-M.

The individual's whole body dosimeter and left-hand finger ring for the same monitoring period (October 15 – November 14, 2001) were 33 millirem and 140 millirem, respectively. The individual did not participate in any activities that would have resulted in such a large disparity between the reported 72, 640 millirem right-hand extremity dose and the whole body and left-hand finger ring dosimeters. In addition, the individual noted that his finger ring dosimeter had never been misplaced or accidentally laundered during that time frame.

The U-M will request Landauer to adjust the individual's right-hand extremity dose from 72,640 millirem to 280 millirem for the October – November 2001 monitoring period. The 280 millirem is twice the extremity dose recorded for the left-hand finger ring dosimeter (140 millirem) for the same period.

Thank you for your time and consideration in this matter. Please do not hesitate to contact the Ford Nuclear Reactor Health Physicist, Heath Downey [(734) 763-2904], or me at Radiation Safety Service / OSEH [(734) 6472251] should you have any questions or comments regarding this report.

Sincerely,

Mark L. Driscoll

Mark L. Driscoll
Director / Radiation Safety Officer
Radiation Safety Service / OSEH

cc: Christopher W. Becker, Laboratory Manager, Ford Nuclear Reactor
Heath T. Downey, Health Physicist, Radiation Safety Service / OSEH

A020
IE70