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June 15, 1979

Mr. Boyce H. Grier
Director
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA. 19406

RE: Docket No. 50-220
LER 79-11

Dear Mr. Grier:

In accordance with 10 CFR 20.405, the following report of apparent exposure of an individual to radiation in excess of the applicable limits is provided.

On May 17, 1979, a telephone report of a film badge result from the R.S. Landauer Company indicated exposure such that cumulative exposure for the Calendar Quarter for an individual employed by a contractor exceeded 3000 mrem (3790 mrem, total, for five film badges - See Attachment II).

The individual involved had a complete NRC Form 4 and had received training in Site Radiation Protection Procedures. This training includes the procedure for use of the Radiation Work Permit, and the Radiation Exposure Report. The primary work accomplished by the individual was radiography.

Monitoring was accomplished by means of Film Badge, supplied and processed by R.S. Landauer, Jr. and Company. In addition, station procedures require use of the self-reading pocket dosimeter and a TLD badge, which is processed on site (See Attachment I). It was the reading of the TLD, last worn 5/14/79, which first indicated the potential overexposure.

In reviewing the RWP's under which the radiography operations were conducted, four separate areas were involved during the film badge period in which excessive exposure was recorded. Similar work in these same areas, plus three additional areas, during the wearing of three previous film badges, resulted in no unexpected exposure recorded by the film badge or TLD.

On May 6, 1979, the individual turned in one dosimeter and checked out another. The reason for the change was not recorded, but subsequent checks indicate satisfactory calibration and drift check for both dosimeters, ie, <± 10% and <2%, respectively.

On several occasions, this individual and others in his company were requested to promptly turn in RWP's at the completion of their work activities. At one point, seven RWP's had not been returned. This laxity lead to delays in exposure readings showing up on the Radiation Exposure Reports. However, by using a combination of dosimeter readings (from RWP's not turned in) and the Radiation Exposure Report, the individual could determine fairly closely his remaining authorized exposure (recorded as Δ Authorized Exposure on RWP's).

Several discrepancies were noted on RWP's used by this individual:

1) RWP for work in the Reactor Building Cleanup corridor, was not returned. After repeated follow up, it was finally recognized as lost. A co-worker estimated exposure to be entered for this period.

2) Δ Auth. Exp. entered on RWP's did not always correspond to that calculated from current total and authorized exposure.

3) One RWP, requiring a TLD, was worked by him without wearing the required TLD.

4) One RWP, requiring the TLD to be returned at the end of the shift, was worked by him without turning in the TLD at the end of the shift.

We believe the general inability to adhere to RWP and procedure requirements demonstrated by this man may have contributed to the overexposure. There is no way to determine, from data available, precisely when the overexposure occurred, however.

Several contributing items will receive attention to avoid a recurrence of a situation of this type. These actions will facilitate management audit of adherance to procedures by asking for more frequent TLD readings:

1) Radiography RWP's, although generally requiring minimal time in an area, will be written to require turn-in of TLD at specified intervals when area dose rates warrant this.

2) The computer dosimetry system will be modified to give an error message upon accumulation of excessive exposure by self-reading dosimeters (for example, 400 mrem) without a corresponding TLD reading.

3) The computer dosimetry system will be modified to give an error message if the Dosimeter/TLD comparison results in a large discrepancy (200 mrem, for example).

The items requiring programming changes will be completed by the end of 1979.

In addition to RWP return problems encountered with the contractor, late film badge return and poor prior exposure records were also experienced.

Auditing of RWP conformance, the single most important item over which we may exercise management control, will continue to be conducted to eliminate the discrepancies which may have lead to this overexposure.

Very truly yours,

Thomas E. Lempges

Thomas E. Lempges
General Superintendent
Nuclear Generation
for: R.R. Schneider
Vice President -
Electric Production

EWL/mtm

ATTACHMENT I

DOSIMETER, TLD, AND FILM DATA

DATES	DOS	TLD	DOSE REPORT VALUE	FILM
4/12-14	200	81	200	110
4/15-18	1055	470	1055	840
4/19-20	635	351	635	740
4/30	100	135	135	
5/1	100	---	100	2100
5/2-14	480	2331	2331	
5/15-16	0	17	17	M

ATTACHMENT II

(THIS PAGE INTENTIONALLY LEFT OUT-CONTAINS 10 CFR 2.790 INFORMATION)