



Consumers
Power
Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

May 14, 1973

Mr. F. E. Kruesi, Director
Directorate of Regulatory Operations
US Atomic Energy Commission
Washington, DC 20545

Re: Docket No 50-255
Palisades Plant

Dear Mr. Kruesi:

An overexposure to ionizing radiation of a Consumers Power Company employee has occurred at Consumers Power Company's Palisades Nuclear Plant. The overexposure occurred during the recent steam generator repair outage at the plant. The employee received his exposure while working with the maintenance crew from January 16, 1973 through February 28, 1973. Film badge dosimetry results indicate that the employee received a total whole body exposure of 3.40 Rem. A detailed report of this exposure is as follows.

Description of Exposure

An employee of Consumers Power Company Palisades Nuclear Plant's maintenance staff received his exposure during the months of January and February 1973, while working on the Palisades Plant recent steam generator repair outage. Although it is not known exactly how the overexposure occurred, in retrospect, it appears that it happened on January 26, 1973. At that time, the employee was working (under the control of the Radiation Protection Office) in the containment building in a 15 mR/h general field work area. During the work period, the Radiation Protection Office reported that the employee's 0-200 mR pocket dosimeter was off scale. Although it is not common, on occasion pocket dosimeters will go off scale when bumped or dropped. Based on the radiation dose accumulated by other members of the maintenance crew he was working with, said employee was assigned a dose of 180 mRem for his work period. At that time, that is from January 1 to January 27, 1973, his total accumulated radiation dose for the quarter as determined by plant dosimetry was 790 mRem.

On January 28, 1973, the plant's scheduled monthly film badge change occurred. On February 21, 1973, the plant received the film badge results report for January 1973. The report showed that he had received 2,000 mRem during January. The film badge processor was contacted and the reading of the film was verified. Because the Radiation Protection

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Office did not have any real indication of a questionable exposure for the employee at the time January's film badges were sent in for processing, he was allowed to continue working in radiation areas during February until his total accumulated radiation dose, as determined by plant dosimetry, reached 2,490 mRem. The administrative limit used for terminating personnel radiation exposure is 2,500 mRem per quarter.

At the time film badges were sent in for processing in January, the Radiation Protection Office using plant dosimetry had charged this employee with 804 mRem of exposure. The difference between his film badge results and plant dosimetry is 1,190 mRem. If this difference is added to the employee's plant dosimetry total, his total accumulated exposure for January and February is 3,689 mRem which is in agreement with his film badge results of 3,400 mRem for these same two months.

Proposed Procedural Change

Approximately two weeks after the steam generator outage began, the Radiation Protection Office gained access (via loan) to a Thermoluminescent Dosimetry (TLD) system for personnel monitoring. Had the employee been wearing a TLD during the entire time period over which his exposure occurred, it is very unlikely that his overexposure would have occurred. Since the end of the steam generator repair outage, the plant has placed an order for the purchase of a TLD system which will be used for personnel monitoring in the future.

A copy of notification to the employee, in accordance with 10 CFR 20.405, is attached.

Yours very truly,



Ralph B. Sewell
Nuclear Licensing Administrator

RBS/map

CC: USAEC Regional
Office, Chicago
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Radiation Protection
Office Files
Palisades Nuclear Plant