

WISCONSIN PUBLIC SERVICE CORPORATION


P.O. Box 700, Green Bay, Wisconsin 54305

May 3, 1985

Mr. C. J. Paperiello, Chief
 Emergency Preparedness and Radiological Safety Branch
 U. S. Nuclear Regulatory Commission
 Region III
 799 Roosevelt Road
 Glen Ellyn, IL 60137

Gentlemen:

Docket 50-305
 Operating License DPR-43
 Kewaunee Nuclear Power Plant
Inspection Report No. 50-305/85-03

Reference: Letter from C. J. Paperiello (NRC) to D. C. Hintz (WPSC)
 dated April 4, 1985

The attachment to this letter details our response to the items of non-compliance identified by Ms. N. A. Nicholson of your office in Inspection Report 85-03.

Very truly yours,

D. C. Hintz
 Manager - Nuclear Power

SLB/MSL/js

Attach.

cc - Mr. S. A. Varga, US NRC
 Mr. Robert Nelson, US NRC

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ATTACHMENT

RESPONSE TO ITEMS OF NONCOMPLIANCE

IE INSPECTION REPORT NO. 50-305/85-03

Items of Noncompliance

- (1) 10 CFR 20.101(a) limits workers at licensee facilities to a whole body exposure of 1.25 Rems in one calendar quarter without a completed Form NRC-4.

Contrary to the above, a worker at the Kewaunee Nuclear Power Plant received a whole body exposure of 1.46 Rems for February 11 through 28, 1985. No Form NRC-4 was completed at the time of exposure.

This is a Severity Level IV violation (Supplement IV).

- (2) Technical Specification 6.11 requires that radiation control procedures to be maintained and adhered to for all operations involving personnel radiation exposures.

Procedure RC-HP-104, Personnel Contamination Form, states a whole body count is required of an individual with facial contamination.

Contrary to the above, on February 19, 1985, an individual with facial contamination (14,000 dpm/100cm²) around his nose and mouth did not receive a whole body count.

This is a Severity Level V violation (Supplement IV).

RESPONSE TO ITEM 1

On March 1, 1985, the monthly in-house processed thermoluminescent dosimeter (TLD) indicated that a contracted employee, performing maintenance work during the refueling outage, had received an accumulated whole body dose of 1.56 Rems during the month of February. This exposure was received prior to completion of a Form NRC-4. His accumulated dose as indicated by self-reading dosimeters (SRD) was 0.85 Rems, well below the quarterly limit of 1.25 Rems. Immediate actions were to complete the Form NRC-4 and determine the worker's lifetime occupational dose. This dose was well below the permissible accumulated dose as calculated by 5(N-18).

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WPSC further requested that the commercially processed TLD, which had already been sent to the vendor, be processed immediately upon receipt. On March 12, 1985 the results of the commercially processed TLD, which serves as the legal record of a worker's exposure, were received and indicated a whole body dose of 1.46 Rems. This information was forwarded to the NRC Region III office on the same day. In addition, an in-house detailed investigation of the anomaly in dosimeter readings was initiated.

The details of this investigation, as well as the required personal information, are documented in Licensee Event Report 85-009¹. The investigation revealed no information which might explain the anomaly of the dosimeter readings. WPSC concludes that the cause of the higher TLD readings is unknown. We further believe that, because of the circumstances, this event is an isolated incident.

A present, plant procedures include an action limit which requires processing of the in-house TLD when a worker's accumulated quarterly dose, as indicated by the SRD, exceeds 1.0 Rem (and 2.0 Rems for those authorized for an increased exposure). This action provides reasonable assurance that the proper administrative measures are taken prior to exceeding the 10 CFR 20 limits. To help prevent a recurrence of this event, the procedural action limit will be lowered to require processing of the in-house TLD when the worker's accumulated dose reaches 0.5 Rem and again at 0.75 Rem in addition to 1.0 Rem (and at 1.5 Rem and 1.75 Rem for those authorized for an increased exposure).

Full compliance was achieved on March 1, 1985 when the personnel record of the individual involved was updated to include a Form NRC-4. Procedural revisions to help prevent a recurrence will be in place by July 1, 1985.

¹Letter from D. C. Hintz (WPSC) to US NRC dated April 11, 1985, transmitting LER 85-009

RESPONSE TO ITEM 2

On February 19, 1985, a maintenance employee working on a pressurizer relief valve was found to have contamination around the nose and mouth area. According to plant procedures, all facial contaminations are to be followed up with a whole body count. Due to the circumstances surrounding this event, as described in the following discussion, a whole body count was not performed. On March 8, 1985, at the request of the inspector, the individual was given a whole body count. No indications of intake were evident as a result of this count.

The worker was in a full face respirator cleaning the valve for reassembly following work done under the guidance of the valve vendor. It is believed that, when removing his respirator, the individual may have accidentally brushed the back of his hand across his nose. Nasal smears were taken, and their results were negative. This, combined with the fact that the person was working in a respirator, led the lead Radiation Protection Technologist to conclude that there was no intake and hence no need for a whole body count.

The personnel decontamination form, which is used by the Radiation Protection personnel to record information regarding the location and level of the contamination, how the person became contaminated, decontamination method, and whether or not nasal smears were taken, was originally developed in March, 1984, as a method to centralize this information. The form also contains a statement (without regard to surrounding circumstances) which requires a whole body count when facial contamination is present. Subsequent to the original development of this form, some shortcomings in content have become apparent.

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To prevent a recurrence of this event the personnel decontamination form has been revised. A section has been added to record results of nasal smears and guidance is now included in procedures for evaluating the need for a whole body count in cases where facial contamination is encountered.

Full compliance has been achieved.