

PHILADELPHIA ELECTRIC COMPANY

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September 21, 1984

Docket No. 50-278

Dr. Thomas E. Murley, Administrator
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

SUBJECT: Peach Bottom Atomic Power Station - Unit 3
Moisture Monitoring System

Dear Dr. Murley:

This letter is a report of moisture monitoring system inoperability in accordance with Philadelphia Electric Company's commitment to report moisture monitoring system problems and alarms unrelated to actual system leakage as stated in letter, J. S. Kerper, PECO, to Dr. T. E. Murley, USNRC, dated September 15, 1983.

Reference:	Docket No. 50-278
Report Number:	MM-3-03
Revision No.:	00
Event Date:	August 23, 1984
Report Date:	September 21, 1984
Facility:	Peach Bottom Atomic Power Station RD #1, Box 208, Delta, PA 17314

ABSTRACT

On August 23, 1984, during Unit 3 startup operations, routine surveillance testing indicated three moisture sensors in the recirculation system moisture monitoring system were functioning improperly. Hourly monitoring of the drywell sump pump out rates is being performed until the sensors can be replaced or repaired during the next outage of sufficient duration to carry out the work.

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DESCRIPTION OF THE EVENT

On August 23, 1984, during Unit 3 startup operations, the moisture monitoring system display in the control room indicated a moisture alarm and a trouble alarm. Investigation determined that the alarms originated from Points 1, 2 and 37. Point 1 is installed on weld 10-0-10 in the 20-inch residual heat removal system suction piping. Point 2 is installed on weld 10-0-7 in the 20-inch residual heat removal suction piping. Point 37 is installed on weld 10-B-2 in the 20-inch residual heat removal system inlet piping. Remote testing of the sensors at these points indicated that the moisture alarm and trouble alarm were triggered by the failure of the sensor.

Following the identification of the sensor failures, the moisture monitoring system was removed from service.

CONSEQUENCES OF THE EVENT

Enhanced surveillance requirements (ST 13.41, "Hourly Drywell Leak Detection") are being performed until an outage of sufficient duration to make the system operable. The purpose of ST 13.41 is to provide early warning of reactor coolant leakage via the drywell sump collection system when the moisture monitoring system is inoperable and reactor temperature is above 212 degrees. These surveillance requirements ensure that drywell leakage rates do not exceed the limits of Technical Specification 3.6.C.1. Therefore, the safety consequences of this event are considered minimal.

CAUSE OF THE EVENT

The cause of the event will be determined during the next unit outage of sufficient duration with the drywell deinerted.

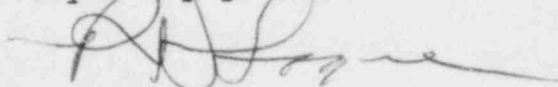
CORRECTIVE ACTIONS

Hourly monitoring of the drywell sump collection system is being performed until the next unit outage of sufficient duration with the drywell deinerted so that these sensors can be made operable. Additionally, the system is restored to operable status once per day to perform ST 13.40, "Checkout of Moisture Monitoring System", as an additional surveillance requirement.

PREVIOUS SIMILAR OCCURRENCES

LER 2-83-26/3L, 3-83-16/3L, 3-83-21/3L, 3-83-24/3L letter: W. T. Ullrich, PECO, to Dr. T. E. Murley, USNRC, dated March 5, 1984; letter: W. T. Ullrich, PECO, to Dr. T. E. Murley, USNRC, dated March 23, 1984; letter, R. H. Logue, PECO, to Dr. T. E. Murley, USNRC, dated July 23, 1984; and letter: R. H. Logue, PECO, to Dr. T. E. Murley, USNRC, dated August 14, 1984.

Very truly yours,



R. H. Logue
Superintendent
Nuclear Services

cc: A. R. Blough, Site Inspector
J. F. Stolz, Operating Reactors Branch #4