



Commonwealth Edison
Quad-Cities Generating Station
Post Office Box 216
Cordeva, Illinois 61242
Telephone 309/654-2241

November 4, 1974

NJK-74-369



Mr. John F. O'Leary, Director
Directorate of Licensing Regulation
U. S. ATOMIC ENERGY COMMISSION
Washington, D. C. 20545

REFERENCE: QUAD-CITIES NUCLEAR POWER STATION
Docket No. 50-254, DPR-29
Appendix A, Sections 1.0.A.2, 3.7.A.1.b, 6.6.B.1.a.


Dear Mr. O'Leary:

Enclosed please find Abnormal Occurrence Report No. AO-50-254/74-35 for Quad-Cities Nuclear Power Station. This occurrence was previously reported to Region III, Directorate of Regulatory Operations by telephone on October 25, 1974 and to you and Region III, Directorate of Regulatory Operations by telecopy on October 25, 1974.

This report is submitted to you in accordance with the requirements of Technical Specification 6.6.B.1.a.

Very truly yours,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION


N. J. Kalivianakis
Station Superintendent

NJK/EAS/dkp

Enclosures

cc: Region III, Directorate of Regulatory Operations
J. S. Abel

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10/4/27 REGION III

REPORT NUMBER: 50-254/74-35

REPORT DATE: November 4, 1974

OCCURRENCE DATE: October 25, 1974

FACILITY: Quad-Cities Nuclear Power Station
Cordova, IL 61242

IDENTIFICATION OF OCCURRENCE:

Pressure Suppression Chamber water level exceeded limit.

CONDITIONS PRIOR TO OCCURRENCE:

Unit 1 was operating at 762 MWe. Monthly and quarterly surveillance tests for the High Pressure Coolant Injection system and the Reactor Core Isolation Cooling system had just been completed.

DISCRIPTION OF OCCURRENCE:

After the tests had been completed at 2:00 a.m. on October 25, 1974, the suppression chamber level was indicated in the control room to be between two and two and one-half inches. The reason that the level was allowed to reach this point was due to a control room operator error in failing to maintain proper suppression chamber water level during the tests. While valves were being aligned to pump the water level down, it was noticed that the High Pressure Coolant Injection (HPCI) pump suction valves MO-1-2301-35 and MO-1-2301-36 from the suppression chamber had opened and that the suction valve from the condensate storage tank, MO-1-2301-6, had closed. These valves align in this manner when the suppression chamber level reaches five inches as given by float-type level switches LS-1-2351 A and B. At first it was thought these valves had aligned at an improper level and at 5:30 a.m. the control room operator started to pump the excess water from the suppression chamber to the waste collector tank. He finished this operation at 5:45 a.m. Later in the morning it was determined that the float switches which change the HPCI suction valve line up were functioning properly. The problem was found to be a malfunction of level transmitter LT-1-1626 for the level indicator in the control room. Because of the incorrect indication, the water level in the suppression chamber had been actually raised to a maximum of five inches. Technical Specification 3.7.A.1.b requires that the maximum water level in the suppression chamber at normal power operation not exceed two inches.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Operator Error - The primary apparent cause is due to operator error; however, a contributing factor to this occurrence was instrument drift causing level transmitter LT-1-1626 to be approximately two inches out of calibration. The control room operator believed his instrument and so allowed the level to increase enough to cause the HPCI suppression chamber

suction valves to open. The reason for this large amount of water being placed in the suppression chamber was due to testing the HPCI and RCIC systems in succession.

ANALYSIS OF OCCURRENCE:

It is not exactly known how long the level transmitter had been out of calibration. The last date it was calibrated was August 30, 1974. In no way was the health and safety of the public jeopardized by this occurrence. The contaminated condensate storage tank level was not abnormal at any time. RCIC was not made inoperational. HPCI was completely operable at all times and the HPCI suction valve change over did occur at the proper level. All other ECCS systems were available throughout the occurrence. Reactor operation was not affected in any way.

CORRECTIVE ACTION:

As soon as the problem was correctly identified, the level transmitter LT-1-1626 was recalibrated. At 10:38 a.m. on October 25, 1974 the control room operator began to pump the excess water to the hot well. At 11:50 a.m. the suppression chamber water level was returned to zero inches on the indicator. A note was transmitted to Operations Personnel covering the necessity and methods of maintaining the pressure suppression chamber water level within the limit during HPCI and RCIC surveillance. A revision has been added to the HPCI operability test procedure which will require that the water level be lower than one inch before beginning the test. A modification has been approved which will install a sight glass on the suppression chamber to aid in keeping this transmitter correctly calibrated. Another modification for the installation of a wide-range level transmitter has been approved that can be used to verify the indicated control room reading.

FAILURE DATA:

The level transmitter LT-1-1626 is a Barton model 352 Bellows type. A previous failure with regards to this transmitter occurred on March 21, 1974 and was reported to you on March 29, 1974. As a result of this occurrence, monthly calibrations were initiated and continued for a six-month period. No abnormalities were observed during these calibrations. This transmitter is now calibrated quarterly, in accordance with Technical Specification Table 4.2.2, and calibrations will continue on that basis. The new modifications which have been initiated will serve to prevent future recurrences of this problem.