



**Commonwealth Edison**  
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NJK-75-614

December 19, 1975

Director of Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

- References:
- 1) Quad-Cities Nuclear Power Station Docket No. 50-265, DPR-30, Unit 2 Appendix A, Sections 1.0.A.2, 3.2.A, 6.6.B.1.a
  - 2) Abnormal Occurrence Report No. 50-265/75-29, dated August 8, 1975

The purpose of this letter is to provide you with supplementary information regarding Quad-Cities Abnormal Occurrence Report No. 50-265/75-29, High Pressure Coolant Injection (HPCI) System Turbine Area High Temperature Sensor Setpoint Drift. The four temperature switches which were found to trip at values exceeding Technical Specification limitations were discovered while investigating a HPCI system automatic isolation.


The Unit 2 HPCI system was placed in operation for testing purposes at 12:05 a.m. on July 31, 1975 following repairs to the HPCI turbine speed control linkage. These repairs were made necessary as a result of an occurrence on July 29, 1975 whereby the system could not pump the required 5000 gallons per minute. This event had been reported in Abnormal Occurrence Report No. 50-265/75-27. At 12:15 a.m. the HPCI system received an isolation signal.

The isolation was determined to be initiated by the high temperature switches receiving input from sensors located approximately five inches above the exhaust end of the turbine. In addition, the room cooler for the HPCI room had been removed from service at 10:00 p.m. on July 30 in order to replace a broken fan belt.

It is felt that these sensors and the other three groups of sensors which initiate a HPCI system isolation are located too close to the HPCI turbine and steam piping. Also, the sensors are too sensitive to the normally warm atmosphere within the HPCI room. Because of these conditions, minor packing leakage will cause an isolation.

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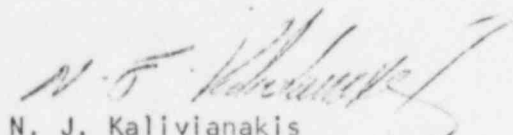
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The purpose of the high temperature isolation is to detect a steam supply line leak and to isolate the system to prevent loss of reactor inventory. It is felt that the present temperature sensor type and location provides a greater than necessary sensitivity to accomplish this purpose.

Quad-Cities Station Action Item 4-75-48 has been issued to the Instrument Department to obtain and install an alternate type of temperature sensor on a test basis. Relocation to a less sensitive position will be considered during this test. A purchase request has been made, and to date approximately one-half of the parts have been received. Installation will commence upon receipt of the remainder of the order.

Very truly yours,

COMMONWEALTH EDISON COMPANY  
QUAD-CITIES NUCLEAR POWER STATION



N. J. Kalivianakis  
Station Superintendent

NJK/LFG/lk

cc: Office of Inspection and Enforcement  
G. A. Abrell  
G. L. Redman