

Regulatory

File Cy.

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Commonwealth Edison Company

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Dresden Nuclear Power Station
R.R.#1
Morris, Illinois 60450
July 14, 1971



Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

SUBJECT: LICENSE DPR-25, DRESDEN NUCLEAR POWER STATION UNIT #3, SECTIONS 6.6.A.1 AND 6.6.B.2 OF THE TECHNICAL SPECIFICATIONS

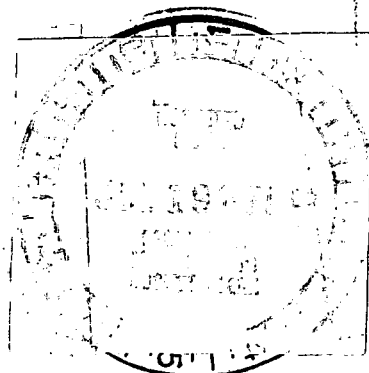
Dear Dr. Morris:

This is to report a condition relating to the operation of the station wherein, during initial 100 to 150 psig plant startup testing, the steam admission control valves to the High Pressure Coolant Injection (HPCI) System failed to open during HPCI testing. Failure of the control valves to open rendered the system incapable of providing coolant injection as required by Section 3.5.C.1 of the Dresden Unit 3 Technical Specifications.

Problem and Investigation

Planned HPCI startup testing was initiated at a reactor pressure of 150 psig on July 4, 1971. At 0230 hours on July 5, during an attempt to perform HPCI functional tests, the turbine could not be rolled off the turning gear due to failure of the admission control valves to open to allow steam to the turbine. This rendered the HPCI inoperable as required by the Technical Specifications. Insertion of control rods was immediately initiated to reduce pressure below 90 psi and allow an evaluation of the condition with the HPCI system not required to be operable.

Investigation of the system revealed a sticking oil-actuated interlock valve in the flow-sensing feedback loop that controls the turbine motor gear unit and control valves during HPCI operation. Cycling of the motor speed changer (MSC) from the control room, which operates as the automatic speed controller of the turbine when at speed, evidently freed the interlock valve and allowed the control valves to open normally. Cycling of the control valves several times after the interlock valve was free did not repeat the sticking of the valve.



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Dr. Peter Morris

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At this time the HPCI turbine had not been actuated since completion of the pre-operational tests in November, 1970. It is felt that the difficulty was due to the extended idle time between the preop tests and the present startup tests, requiring a cycling pressure to be applied to the hydraulic piston instead of the gradual increase in the initial operation of the MSC. It is further felt that the valves would have opened as required upon an automatic initiation, due to the sudden surge of oil to the interlock valve which would overcome the friction holding the valve closed.

Conclusion

Monthly surveillance testing of the HPCI system requires exercising of the HPCI valves. This testing will assure that the valves are properly lubricated and free to move. Also, during extended refueling outages when routine monthly HPCI tests are postponed, and prior to startup, the HPCI valves which can be exercised will be exercised to verify that the valves are properly lubricated and free to move.

Sincerely,

H.K. Hoyt
H.K. Hoyt
Superintendent

HKH:rh