



**Commonwealth Edison**  
 One First National Plaza, Chicago, Illinois  
 Address Reply to: Post Office Box 767  
 Chicago, Illinois 60690

April 22, 1976

**Regulatory Docket File**



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



**Subject:** Dresden Station Units 2 and 3, Operating License Nos. DPR-19 and DPR-25 and Quad-Cities Station Units 1 and 2, Operating License Nos. DPR-29 and DPR-30 Proposed Amendment to Appendix A Technical Specifications, NRC Docket Nos. 50-237, 50-249, 50-254, and 50-265

**Reference (a):** APED 5750 Design and Performance of G.E. Boiling Water Reactor MSIV Supplements 1 and 2 Main Steam Isolation Valves

Dear Mr. Rusche:

Pursuant to 10 CFR 50.59, Commonwealth Edison proposes to amend Section 3.7D, Containment Isolation Valves. The proposed changes are shown on the enclosed revised page 3.7/4.7-10 of the Quad-Cities Units 1 and 2 Technical Specifications, and page 122 of the Dresden Units 2 and 3 Technical Specifications.

The amendment proposes to increase the limiting temperature for the main steam isolation valve pilots from 150°F to 170°F. The present limit of 150°F for MSIV pilot temperatures was imposed as the result of a number of MSIV failures to close during the startup testing at Dresden Unit 2. At that time, the air supply was of service air quality and the MSIV pilots in use had very close tolerances. Oil vapors in the air system would carbonize and cause binding of the pilot valves.

Since this time, the air systems have been upgraded to dry oil free conditions, filters have been added to the MSIV pilot air supply, and a new type of pilot with greater tolerances have replaced

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the originally installed models.

Until the recent operation on closed cycle for Dresden and Quad-Cities, meeting the 150°F limitation was possible even in the summer. Operation on the spray canal at Quad-Cities has resulted in significant increases in service water temperature and some difficulty remaining below the 150°F limitation during operation on hot summer days.

As described in reference (a), General Electric Company has tested the present design pilot valves for 30 days in an environment of 185°F without any failures. Other components of the circuit such as the solenoid coils are rated for 203°F continuous service and the viton seals are rated for 250°F.

The modest increase of 20°F over present temperature limits will be well within the temperature capability of the pilot valve, but high enough to avoid approaching this limit during hot summer days while the subject units are operating closed cycle.

The probability of a failure should not be increased by this change because of improvements made in the instrument air system and the MSIV pilot design.

General Electric Company's tests have shown that operations at 185°F for more than 30 days does not degrade valve performance. The valves are tested periodically in accordance with Section 4.7.D.1.d.

The change does not make possible another type of accident nor reduce the margin of safety transients considered in the Safety Analysis Report.

A response to this amendment is needed by July 1, 1976 if it is to provide any relief for operations this summer.

Three (3) signed originals and 57 copies are provided for your use as are 40 copies of each revised page for each unit.

This change has received On-Site and Off-Site Review. Please contact this office if you have any additional questions.

Very truly yours,

R. L. Bolger  
Assistant Vice President

SUBSCRIBED and SWORN to  
before me this 22<sup>nd</sup> day  
of April, 1976.

*Nancy M. Hollingworth*  
Notary Public

My Commission Expires September 24, 1978

## 3.7 LIMITING CONDITION FOR OPERATION

2. In the event any isolation valve specified in Table 3.7.1 becomes inoperable, reactor power operation may continue provided at least one valve in each line having an inoperable valve is in the mode corresponding to the isolated condition.
3. If Specification 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours.
4. The temperature of the main steamline air pilot valves shall be less than 170°F except as specified in 3.7.D.5 below.
5. From and after the date that the temperature of any main steamline air pilot valve is found to be greater than 170°F, reactor operation is permissible only during the succeeding seven days unless the temperature of such valve is sooner reduced to less than 170°F, provided the main steamline isolation valves are operable.
6. When it is determined that it will take longer than seven days to reduce the temperature of any main steamline air pilot valve to less than 170°F, a report detailing the circumstances and the estimated date for returning the air pilot valve temperature to a value less than 170°F shall be submitted to the NRC prior to the end of the seven day period.

## 4.7 SURVEILLANCE REQUIREMENT

- d. At least twice per week the main steamline power-operated isolation valves shall be exercised by partial closure and subsequent reopening.
2. Whenever an isolation valve listed in Table 3.7.1 is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily.
3. The temperature of the main steamline air pilot valves shall be recorded daily.
4. When it is determined that the temperature of any main steamline air pilot valve is greater than 170°F, the main steamline isolation valves shall be demonstrated to be operable immediately and daily thereafter. The demonstration of operability shall be according to Specification 4.7.D.1.d.

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QUAD-CITIES  
DPR-29

- reopened.
- 2) With the reactor power less than 50% of rated, the main steamline isolation valves (one at a time) shall be verified for closure time.
  - d. At least twice per week the main steamline power-operated isolation valves shall be exercised by partial closure and subsequent reopening.
2. In the event any isolation valve specified in Table 3.7-1 becomes inoperable, reactor power operation may continue provided at least one valve in each line having an inoperable valve is in the mode corresponding to the isolated condition.
  3. If Specifications 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.
  4. The temperature of the main steamline air pilot valves shall be less than 170° F except as specified in Specifications 3.7.D.5 and 3.7.D.6 below.
  5. From and after the date that the temperature of any main steamline air pilot valve is found to be greater than 170° F, reactor operation is permissible only during the succeeding 7 days unless the temperature of such valve is sooner reduced to less than 170° F, provided the main steamline isolation valves are operable.
  6. If Specification 3.7.D.5 cannot be met, the main steamline isolation valve shall be considered inoperable and action taken in accordance with Specification 3.7.D.2.
2. When an isolation valve listed in Table 3.7-1 is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily.

QUAD-CITIES  
DPR-30

- reopened.
- 2) With the reactor power less than 50% of rated, the main steamline isolation valves (one at a time) shall be verified for closure time.
  - d. At least twice per week the main steamline power-operated isolation valves shall be exercised by partial closure and subsequent reopening.
2. In the event any isolation valve specified in Table 3.7-1 becomes inoperable, reactor power operation may continue provided at least one valve in each line having an inoperable valve is in the mode corresponding to the isolated condition.
  3. If Specifications 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.
  4. The temperature of the main steamline air pilot valves shall be less than 170° F except as specified in Specifications 3.7.D.5 and 3.7.D.6 below.
  5. From and after the date that the temperature of any main steamline air pilot valve is found to be greater than 170° F, reactor operation is permissible only during the succeeding 7 days unless the temperature of such valve is sooner reduced to less than 170° F, provided the main steamline isolation valves are operable.
  6. If Specification 3.7.D.5 cannot be met, the main steamline isolation valve shall be considered inoperable and action taken in accordance with Specification 3.7.D.2.
2. When an isolation valve listed in Table 3.7-1 is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily.