

Commonwealth Edison Company
Dresden Generating Station
6500 North Dresden Road
Morris, IL 60450
Tel 815-942-2920



March 18, 1997

JSPLTR 97-0056

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Washington, D. C. 20555-0001

SUBJECT: Dresden Nuclear Power Station Units 2 and 3
Application for Amendment to Facility Operating
Licenses DPR-19 and DPR-25, Appendix A, Technical Specifications
**Amendment to Increase High Pressure Coolant Injection Isolation
on Low Reactor Vessel Pressure Setpoint**
Docket Nos. 50-237 and 50-249

Pursuant to 10 CFR 50.90, ComEd proposes to amend Appendix A, Technical Specifications Section 3/4.2 of Facility Operating Licenses DPR-19 and DPR-25. ComEd requests NRC Staff review and approval of a Technical Specification change to increase the High Pressure Coolant Injection Isolation on Low Reactor Vessel Pressure setpoint from greater than or equal to 80 psig to greater than or equal to 100 psig.

The UFSAR and design basis documents indicate that the greater than or equal to 100 psig setpoint is more appropriate than the existing setpoint to assure the function of the HPCI steam line isolation. This function is required to minimize potential leakage from the HPCI turbine in the event that reactor steam supply pressure falls below the stall pressure of the turbine and the system seals are no longer effective in controlling the release of potentially contaminated steam. The increased setpoint remains well below the reactor vessel pressures at which the HPCI system is required to perform its safety function.

Attachment A to this letter provides the description and evaluation of the proposed changes to Facility Operating Licenses DPR-19 and DPR-25 for Dresden Unit 2 and Unit 3 and the basis for approval.

Attachment B provides revised Technical Specification pages.

Attachment C provides the Evaluation of No Significant Hazards Consideration.

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USNRC
March 18, 1997

Page 2

The Technical Specification amendment provided herein has been reviewed by onsite and offsite review in accordance with Company procedures and policies.


ComEd requests NRC approval of this request by August 1, 1997, with the amendment to be effective no later than 30 days following approval. Approval of this amendment will ensure consistency between Dresden Station's design basis, licensing basis, and Technical Specification limits.

To the best of my knowledge and belief, the statements contained above are true and correct. In some respect these statements are not based on my personal knowledge, but obtained information furnished by other Commonwealth Edison employees, contractor employees, and consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

ComEd is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated state official.

Please direct any questions you may have concerning this submittal to Frank Spangenberg at 815-942-2920, extension 3800.

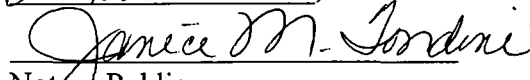
Sincerely,

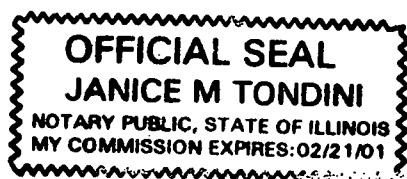

J. Stephen Perry
Site Vice President
Dresden Station

Subscribed and Sworn to before me

on this 18th day of

March, 1997.


Notary Public



USNRC
March 18, 1997

Page 3

Attachments:

- A. Description and Safety Analysis of the Proposed Changes**
- B. Marked-Up Technical Specification Pages**
- C. Evaluation of Significant Hazards Considerations and Environmental Assessment Applicability Review**

cc: A. Bill Beach, Regional Administrator - RIII
Senior Resident Inspector - Dresden
J. F. Stang, Project Manager - NRR
Office of Nuclear Facility Safety - IDNS

ATTACHMENT A
Description and Safety Analysis of the Proposed Change

Description of the Proposed Change

Pursuant to 10 CFR 50.90, ComEd proposes to amend Appendix A, Technical Specification (TS) 3.2.A, Table 3.2.A-1, Isolation Actuation Instrumentation, item 6.b, High Pressure Coolant Injection Isolation, Reactor Vessel Pressure - Low, of Facility Operating Licenses DPR-19 and DPR-25. The purpose of this amendment request is to change the Trip Setpoint for the instrumentation to maintain consistency between the available design basis information and the Dresden Station Updated Final Safety Analysis Report (UFSAR). The proposed change will increase the Trip Setpoint for the instrumentation from greater than or equal to 80 psig to greater than or equal to 100 psig.

Description and Bases of the Current Technical Specification Requirement

TS 3.2.A, Isolation Actuation, requires that the isolation actuation instrumentation CHANNEL(S) shown in Table 3.2.A-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint Column.

Technical Specification 3.2.A, Table 3.2.A-1, Isolation Actuation Instrumentation, item 6.b, High Pressure Coolant Injection Isolation, Reactor Vessel Pressure - Low, currently requires the Trip Setpoint for this function to be set at greater than or equal to 80 psig. TS Table 3.2.A-1 also requires that two channels per trip system be OPERABLE when in OPERATIONAL MODES 1, 2, or 3, and if unable to meet these requirements, Action Statement 23 must be entered. This Action Statement requires the operators to close the affected system isolation valves within one hour and declare the affected system inoperable.

The Bases for TS 3/4.2.A indicates that "the isolation actuation instrumentation automatically initiates closure of appropriate isolation valves and/or dampers, which are necessary to prevent or limit the release of fission products from the reactor coolant system, the primary containment and the secondary containment in the event of a loss-of-coolant accident or other reactor coolant pressure boundary (RCPB) leak." No specific information is provided for the HPCI Low Reactor Vessel Pressure trip setpoint in the TS Bases.

Section 6.3.2.3.4 of the Dresden UFSAR provides bases for the setpoint which indicate that when the reactor pressure falls below 165 psia (150 psig), the speed of the HPCI turbine driven pump will begin to decrease and will gradually be slowed to a stop by friction and windage losses at about 65 psia (50 psig). The UFSAR also indicates that this decrease will be terminated on HPCI steam line isolation.

ATTACHMENT A
Description and Safety Analysis of the Proposed Change

Description of the Need and Bases for Amending the Technical Specifications

The proposed change will provide a TS setpoint consistent with the UFSAR and the design basis documents associated with the system. The proposed change will increase the Trip Setpoint for the instrumentation from greater than or equal to 80 psig to greater than or equal to 100 psig.

Section 6.3.3.1.3.2 of the Dresden UFSAR states that the HPCI subsystem is designed to deliver full rated flow down to a reactor pressure of 165 psia (150 psig). For lower pressures (less than 165 psia), the estimated flow decreases linearly to zero at 65 psia (50 psig). In section 6.3.2.3.3.4, the UFSAR states that the "...HPCI Isolation will occur on HPCI steam line pressure of 100 psig." The original General Electric data sheet associated with the affected components (GE Specification Sheet 257HA353AB, revision 3) specifies the HPCI Steam Line Low Pressure Switch Setpoint to be 100 psig. The 100 psig setpoint corresponds to a capability to provide approximately one-half of the design flow from the system i.e. one-half of the decrease in pressure from full flow (150 psig) to zero flow (50 psig). The Dresden UFSAR describes the system response to a 0.4 square foot break in the reactor coolant pressure boundary, the corresponding swell in the reactor vessel, and postulated carryover of water to the HPCI turbine. The isolation function basis analyses assumed a reactor pressure decay from 1000 psig to 100 psig before the low reactor pressure vessel isolation signal occurs, and the resulting profile indicated that the isolation would occur in less than 15 minutes, limiting the duration of any potential leakage from the system. The greater than or equal to 100 psig setpoint proposed in this amendment request is conservative with respect to this analysis in that the duration of the postulated leakage is terminated in less than the 15 minutes described in the analysis.

The greater than or equal to 100 psig limit also is adequate to assure the HPCI turbine is isolated from its steam supply as reactor pressure decreases following a postulated accident and before the stall pressure is reached. This provides assurance that the system will be isolated while the system steam seals are functional.

A review of design basis documents revealed no technical basis for the previous setpoint value of greater than or equal to 80 psig. A review of the calibration procedures revealed that the setpoint, originally 80 psig increasing, was apparently based on a misinterpretation of the original design documents in that it was considered a permissive actuation which was required to occur prior to reaching a reactor vessel pressure where HPCI is required to function. In addition, although it was determined at a later time that this was intended to be an isolation function and the actuation changed to 80 psig decreasing, the setpoint value was not appropriately addressed. As an interim measure, Dresden Station has administratively adjusted the setpoint for these channels to greater than or equal to 100 psig. This is consistent with the existing TS limit of greater than or equal to 80 psig.