



ESK-97-002

January 6, 1997

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

**SUBJECT: Dresden Nuclear Power Station Units 2 and 3
Quad Cities Nuclear Power Station Units 1 and 2
Request for Amendment to Facility Operating Licenses DPR-19,
DPR-25, DPR-29 and DPR-30, Appendix A,
Technical Specifications (TS),
Clarification of Mode Requirements for Protective Instrumentation
With Automatic Bypass Features
NRC Docket Nos. 50-237/249 and 50-254/265**

Pursuant to 10 CFR 50.90, ComEd proposes to amend Appendix A, Technical Specifications Table 3.1.A-1, 4.1.A-1, 3.2.E-1 and 4.2.E-1, for Facility Operating Licenses DPR-19, DPR-25, DPR-29 and DPR-30. The purpose of this amendment request is to clarify and maintain consistency between the operability requirements for protective instrumentation and associated automatic bypass features.

The proposed Technical Specification Amendment is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes.
2. Attachment B includes the proposed changes to the Technical Specifications pages, including marked-up versions of the current pages.
3. Attachment C describes ComEd's evaluation performed in accordance with 10 CFR 50.92 (c), which confirms that no significant hazards consideration is involved. In addition, ComEd's Environmental Assessment Applicability Review is included.

This proposed Technical Specification amendment has been reviewed and approved by ComEd On-Site and Off-Site Review in accordance with ComEd procedures.

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ComEd requests NRC approval of this request within 90 days of receipt of this submittal. In addition, ComEd requests a 30 day implementation period in order to effectively implement any administrative procedures necessitated by the proposed changes.

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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 this office.

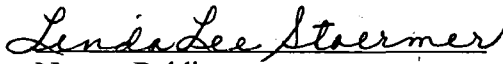
Respectfully,


E. S. Kraft, Jr.
Site Vice President
Quad Cities Station

Subscribed and Sworn to before me

on this 6 day of
JANUARY, 1997.




Linda Lee Stoermer
Notary Public

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. B. Beach, Regional Administrator - RIII
 - C. G. Miller, Senior Resident Inspector - Quad Cities
 - C. L. Vanderniet, Senior Resident Inspector - Dresden
 - R. M. Pulsifer, Project Manager - NRR
 - J. F. Stang, Project Manager - NRR
 - Office of Nuclear Facility Safety - IDNS
 - R. J. Singer, MidAmerican Energy Company
 - D. C. Tubbs, MidAmerican Energy Company

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED CHANGES

Description of the Proposed Changes

ComEd proposes to amend Appendix A, Technical Specifications for Facility Operating Licenses DPR-19, DPR-25, DPR-29 and DPR-30 as described below. The purpose of the amendment is to clarify and maintain consistency between the operability requirements for protective instrumentation and their associated automatic bypass features. These changes are administrative in nature and in no way affect operability requirements.

TS Table 3.1.A.1/4.1.A.1 - Reactor Protection System Instrumentation

TS Table 4.1.A-1, note (l), and TS Table 3.1.A-1, note (d), clarify the applicability of Table 3.1.A-1, Item No. 9, "Turbine Stop Valve - Closure," Item No. 10, "Turbine EHC Control Oil Pressure - Low," and Item No. 11, "Turbine Control Valve Fast Closure." TS Table 4.1.A-1, note (l), specifies: "This function is not required to be OPERABLE when THERMAL POWER is less than 45% of RATED THERMAL POWER." TS Table 3.1.A-1, note (d), specifies: "This function shall be automatically bypassed when THERMAL POWER is less than 45% of RATED THERMAL POWER." ComEd proposes to revise TS Table 3.1.A-1, note (d), and TS Table 4.1.A-1, note (l), to read "With THERMAL POWER greater than or equal to 45% of RATED THERMAL POWER."

TS Table 3.2.E-1/4.2.E-1 - Control Rod Block Instrumentation

In TS Table 3.2.E-1, Item 3.a, "Detector not full in," has been modified to clarify the mode requirements for the SRM detector not full in rod block. Note (j) has been added to the mode applicability and reads "With detector count rate less than or equal to 100 cps." In addition, note (b) has been modified to read "This function shall be automatically bypassed if the IRM channels are on range 3 or higher". Similar changes are proposed for Table 4.2.E.-1.

In TS Table 3.2.E-1, Item 1, "Rod Block Monitors," a change to note (a) is proposed to read "The RBM shall be automatically bypassed when a peripheral control rod is selected." This eliminates the reference to the automatic bypass feature at 30% power. The applicability of the RBM rod block requirement is explicitly defined in note (e).

The proposed changes are consistent with the requirements of the Improved Standard Technical Specifications (NUREG-1433) which provide clear requirements regarding the applicability of these items.

ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED CHANGES

Description of the Current Operating License/Technical Specification Requirement

Technical Specification (TS) Table 3.1.A-1, Item Nos. 9, 10 and 11, provide the RPS Instrumentation Limiting Conditions for Operation. Item Nos. 9, 10 and 11 refer to the Turbine Stop Valve - Closure, Turbine EHC Control Oil Pressure - Low and Turbine Control Valve Fast Closure, respectively. The current applicable MODES of OPERATION for Item Nos. 9, 10 and 11 specified in TS Table 3.1.A-1 are clarified by note (d) which specifies:

“(d) This function shall be automatically bypassed when THERMAL POWER is less than 45% of RATED THERMAL POWER.”

The current applicable MODES of OPERATION for Item Nos. 9, 10 and 11 specified in TS Table 4.1.A-1 are clarified by note (l) which specifies:

“(l) This function not required to be OPERABLE when THERMAL POWER is less than 45% of RATED THERMAL POWER.”

The applicable MODES of OPERATION requirements for TS Table 3.1.A-1, Item Nos. 9, 10, 11 and TS Table 4.1.A-1, Item Nos. 9, 10 and 11 should be identical. The purpose of this amendment request is to make this notation identical.

Technical Specification (TS) Table 3.2.E-1, Item No. 1, provides the RBM applicability requirements for the Rod Block Monitor system. Note (a) specifies when the RBM shall be automatically bypassed. The RBM is designed with an automatic bypass feature when an edge rod is selected or indicated reactor power level is less than 30%. It is proposed to eliminate the automatic bypass feature at 30% power from note (a) since the applicability of the RBM function is explicitly defined in note (e).

TS Table 3.2.E-1, Item 3a, defines the applicability of the SRM detector not full in rod block. As described in note (b), this function is designed to be automatically bypassed if SRM detector count rate exceeds 100 cps OR the IRM channels are on Range 3 or above. This design feature ensures adequate nuclear instrumentation coverage during low power operation (SRM count rates less than 100 cps). The proposed changes eliminate the reference to count rate in note (b). A new applicability note is proposed (note (j)) which clearly identifies when the detector not full in rod block is required to be operable. Similar changes have been made to Table 4.2.E-1.

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DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED CHANGES

Bases for the Current Requirements

The reactor protection system (RPS) automatically initiates a reactor scram to preserve the integrity of the fuel cladding, preserve the integrity of the primary system, minimize the energy which must be absorbed and prevent criticality following a loss-of-coolant accident. Technical Specification (TS) 3/4.1.A provides the Limiting Conditions for Operation necessary to preserve the ability of the system to perform its intended function, even during periods when instrument channel(s) may be out of service because of maintenance. Surveillance requirements for the reactor protection system are selected in order to demonstrate proper function and operability.

Tables 3.1.A-1 and 4.1.A-1 provide the RPS Instrumentation Limiting Conditions for Operations and Surveillance Requirements, respectively. The turbine stop valve closure scram (Item No. 9), the turbine EHC control oil low pressure scram (Item No. 10), and the turbine control valve fast closure scram (Item No. 11) are enabled by turbine first stage pressure which is normally equivalent to approximately 45% RATED THERMAL POWER. However, since this is dependent on bypass valve position, the conservative reactor power is used to determine applicability.

Note (d) in Table 3.1.A-1 and note (l) in Table 4.1.A-1 clarify the applicability for these requirements. As stated in ComEd's submittal dated September 10, 1993, the intention of clarifying the terminology for note (d) was to make the note similar to the Standard Technical Specification (STS - NUREG-0123) notation. The wording regarding "...shall be automatically..." was added to Table 3.1.A-1, note (d) as an acknowledgment that this requirement was a design feature and not a requirement. The intention of note (d) is to specify that below 45% RATED THERMAL POWER, the transients for these protective functions (those described for Item Nos. 9, 10 and 11) will not threaten the fuel integrity because the Turbine Bypass Valves capacity is sufficient to limit reactor pressurization.

Tables 3.2.A-1 and 4.2.A-1 provide control rod block functions. Control rod blocks are provided to prevent excessive control rod withdrawal when reactor core conditions do not warrant control rod motion.

The RBM is designed with an automatic bypass feature when an edge rod is selected or indicated reactor power level is less than 30%. At low power levels, the worst case rod withdrawal error will not challenge fuel integrity limits; hence, the RBM is automatically bypassed when power level is less than 30%. The proposed changes in no way impact the operability requirements of the RBM. The proposed changes simply clarify that the RBM will be operable when power levels are greater than or equal to 30% power.

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DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED CHANGES

TS Table 3.2.E-1, Item 3a, defines the applicability of the SRM detector not full in rod block. This function is designed to be automatically bypassed if SRM detector count rate exceeds 100 cps or the IRM channels are on Range 3 or above. This design feature ensures adequate nuclear instrumentation coverage during low power operation. The proposed changes eliminate the reference to count rate in note (b). A new applicability note is proposed (note (j)) which clearly identifies when the detector not full in rod block is required to be operable. Similar changes have been proposed for Table 4.2.E-1.

Description of the Need for Amending the Technical Specification

Existing TS Table 3.1.A-1, note (d), and TS Table 4.1.A-1, note (l) provide clarification to the applicability (MODE of OPERATION) of certain requirements. These requirements are the RPS Instrumentation for the turbine stop valve closure scram (Item No. 9), the turbine EHC control oil low pressure scram (Item No. 10), and the turbine control valve fast closure scram (Item No. 11). The design basis at Dresden and Quad Cities specifies that the turbine stop valve closure scram, the turbine EHC control oil low pressure scram, and the turbine control valve fast closure are applicable greater than 45% of RATED THERMAL POWER. At power levels greater than 45% RATED THERMAL POWER, these protective functions are necessary to ensure that the fuel integrity of the plant is maintained. At power levels below 45% RATED THERMAL POWER, these protective functions are not required. The intention of note (d) to TS Table 3.1.A-1 and note (l) to TS Table 4.1.A-1 is to provide this clarification.

In ComEd's original submittal for TS 3/4.1.A, dated December 8, 1992, TS Table 3.1.A-1, note (d) and TS Table 4.1.A-1, note (l) were identical and specified: "This function not required to be OPERABLE when THERMAL POWER is less than 45% of RATED THERMAL POWER". However, ComEd modified TS Table 3.1.A-1, note (d) in its September 10, 1993 submittal to maintain consistency with NUREG-0123 (Standard Technical Specification) notation and to provide clarity regarding an intended design feature of the RPS Instrumentation system. TS Table 4.1.A-1, note (l) was not modified within the September 10, 1993 submittal. The NRC staff approved ComEd's changes in its Safety Evaluation Report (SER), dated September 20, 1995.

To ensure consistency between notation within TS Tables 3.1.A-1 and 4.1.A-1 and to provide clearer guidance to site operations personnel regarding the applicability of the requirements specified in TS Table 3.1.A-1, Item Nos. 9, 10 and 11, ComEd proposes to revise TS Table 3.1.A-1, note (d), and TS Table 4.1.A-1, note (l), to be identical. In addition, the proposed change is consistent with the requirements of the Improved Standard Technical Specifications (NUREG-1433).

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Similar changes have been proposed for certain instrumentation in TS Tables 3.2.E-1 and 4.2.E-1 for the RBM and the SRM not full in rod block functions. These rod block functions are designed to be automatically bypassed at pre-defined power levels. The proposed changes ensure the operability requirements are clearly defined consistent with the design basis of the system .

Bases for the Amended Technical Specification Request

The proposed changes are administrative in nature and are consistent with the existing plant safety analysis.

Below 45% RATED THERMAL POWER, the transients for the protective functions identified in Table 3.1.A-1 for Item Nos. 9, 10 and 11 do not threaten the fuel integrity. The revision to TS Table 3.1.A-1, note (d), and TS Table 4.1.A-1, note (l), continues to ensure that RPS Instrumentation for the turbine stop valve closure scram (Item No. 9), the turbine EHC control oil low pressure scram (Item No. 10), and the turbine control valve fast closure scram (Item No. 11) are maintained and OPERABLE at greater than 45% RATED THERMAL POWER.

The changes proposed for Table 3.2.E-1/4.2.E-1 provide clarity with respect to the operability requirements for the RBM and the SRM not full in rod block functions. The proposed revision will ensure the rod block functions are available when required by the plant design basis.

Therefore, the proposed changes in terminology to TS tables 3.1.A-1/4.1.A-1 and 3.2.E-1/4.2.E-1 do not adversely affect existing plant safety margins.