

Commonwealth Edison Company
Dresden Generating Station
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February 29, 2000

10 CFR 50.90

PSLTR: #00-0061

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Dresden Nuclear Power Station, Unit 2 and 3
Facility Operating License No. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

Subject: Request for Technical Specifications Change:
Reduction in the Number of Safety Valves Required for Reactor Vessel
Overpressure Protection

- Reference: 1) Letter from R. M. Krich to USNRC dated May 5, 1999, "Exigent Application for Amendment to Appendix A, Technical Specifications, Change in the Number of Safety Valves Required for Reactor Vessel Overpressure Protection"
- 2) Letter from L. Rossbach to O.D. Kingsley dated June 4, 1999, "Issuance of Amendment"

In accordance with 10 CFR 50.90, Commonwealth Edison (ComEd) Company proposes a change to Appendix A, Technical Specification (TS), of Facility Operating License DPR-19 and DPR-25. This application for amendment proposes a change to TS Section 3/4.6.E, Primary System Boundary – Safety Valves. The requested change reduces the TS required number of safety valves that provide overpressure protection to the reactor vessel. This change is consistent with the Unit 2 plant transient analyses and an exigent license amendment request that was submitted and approved for Dresden Nuclear Power Station Unit 3 (References 1 and 2). This proposal will relocate the surveillance requirements from TS section 3.6.E to TS section 4.6.E and remove the surveillance requirement for the safety function of the Target Rock valve from TS Section 3/4.6.E. The safety valve lift setpoints are verified by surveillance tests and are more correctly specified under the surveillance requirement section, TS Section 4.6.E, rather than the limiting condition for operation section. Relocation of the Reactor Coolant System (RCS) safety valve lift pressure setpoints follows the format of NUREG 1433, "Standard Technical Specifications General Electric Plants, BWR/4." This change will allow the Limiting Condition for Operation and the Surveillance Requirements to be identical for both Dresden Units 2 and 3.

Dresden Nuclear Power Station (DNPS), Unit 2, has 9 safety valves. One of the 9 valves, manufactured by Target Rock, provides both a safety and relief function. Thus, both the safety valve (TS 3/4.6.E) and relief valve (TS 3/4.6.F) Technical Specifications govern operability of this valve. Although the safety valve function of the Target Rock safety valve is required to be operable by the plant TS, no credit is taken for this valve in the analyses that are used to meet the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code. The ASME B&PV Code requires that each vessel designed to meet ASME Section III be protected from the consequences of pressures and temperatures in excess of design conditions. Main Steam Safety Valves are sized to protect the reactor vessel against postulated overpressure events. The current TS 3/4.6.E requires nine (9) safety valves to be OPERABLE during MODES 1, 2, and 3. However, plant transient analyses and applicable design bases documentation indicate that the number of valves required for ASME B&PV Code compliance is eight (8). The current TS is overly conservative and presents an undue burden with no increase in the margin of safety. The purpose of this amendment is to support a reduction in the number of safety valves required for reactor overpressure protection for DNPS Unit 2, by eliminating the requirement for the safety mode of the Target Rock safety valve and to combine the TS pages for both DNPS Unit 2 and Unit 3 for consistency.

The proposed changes are subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes,
2. Attachment B includes the marked-up TS pages with the requested changes indicated,
3. Attachment C describes our evaluation performed using the criteria in 10 CFR 50.92(c), which provides information supporting a finding of no significant hazards consideration, and
4. Attachment D provides information supporting an Environmental Assessment.

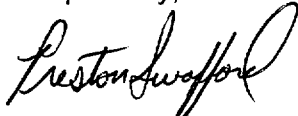
The proposed amendment has been reviewed and approved by the Plant Operations Review Committee and Nuclear Safety Review Board in accordance with the Quality Assurance Program.

ComEd is notifying the State of Illinois of this request for changes to the TS by transmitting a copy of this letter and its attachments to the designated State Official.

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Should you have any questions concerning this letter, please contact Mr. D.F. Ambler at
(815) 942-2920 Extension 3800.

Respectfully,

A handwritten signature in black ink, appearing to read "Preston Swafford". The signature is fluid and cursive, with a large loop at the end.

Preston Swafford
Site Vice President
Dresden Nuclear Power Station

Attachments

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Dresden Nuclear Power Station
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety

STATE OF ILLINOIS

COUNTY OF GRUNDY

IN THE MATTER OF

COMMONWEALTH EDISON (COMED) COMPANY

Docket Nos.

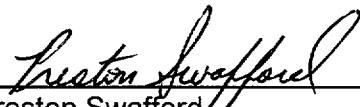
DRESDEN NUCLEAR POWER STATION - UNIT 2 AND 3

50-237 and 50-249

SUBJECT: Request for Technical Specifications Change:
Reduction in the Number of Safety Valves Required for Reactor Vessel
Overpressure Protection

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my
knowledge, information and belief.



Preston Swafford
Site Vice President
Dresden Station

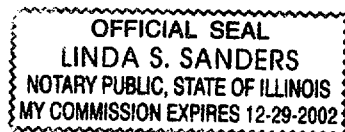
Subscribed and sworn to before me, a Notary Public in and

for the State above named, this 29th day of

February, 2000.



Notary Public



**ATTACHMENT A, Proposed Changes to Technical Specifications for
Dresden Nuclear Power Station, Unit 2 and 3, Page 1 of 3**

**DESCRIPTION AND SAFETY ANALYSIS
FOR PROPOSED CHANGES**

A. SUMMARY OF PROPOSED CHANGES

In accordance with 10 CFR 50.90, Commonwealth Edison (ComEd) Company proposes to amend Appendix A, Technical Specifications (TS) Section 3/4.6.E, Primary System Boundary – Safety Valves, of Facility Operating License DPR-19 and DPR-25, Dresden Nuclear Power Station (DNPS), Unit 2 and Unit 3. The proposed change reduces the number of safety valves required to provide overpressure protection to the Reactor Pressure Vessel (RPV). This proposed change is consistent with the Unit 2 plant transient analyses and an exigent license amendment request that was submitted and approved for DNPS Unit 3, (see References 1 and 2). This proposal will relocate the surveillance requirements from TS section 3.6.E to TS section 4.6.E and remove the surveillance requirement for the safety function of the Target Rock valve from TS Section 3/4.6.E. Additionally, the required number of safety valves that are to be rotated in the surveillance requirements section 4.6.E has been changed from nine (9) to eight (8) safety valves for DNPS Unit 2 and Unit 3. The Reactor Coolant System (RCS) safety valve lift setpoints are verified by surveillance tests and more correctly specified under the surveillance section, TS Section 4.6.E, rather than the limiting condition for operation section, TS Section 3.6.E. Relocation of the Reactor Coolant System safety valve lift pressure setpoints follows the format of NUREG 1433, "Standard Technical Specifications General Electric Plants, BWR/4."

The TS for safety valves ensures that the reactor pressure vessel is protected from overpressure conditions in accordance with American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code requirements. The size and number of self-actuating valves were determined to prevent internal vessel pressure from exceeding ASME Code limits. The current TS for safety valves is overly conservative in that it requires more than the number of safety valves necessary to maintain the RPV pressure below the ASME Code limit of 110 percent of the reactor pressure design pressure.

The proposed changes are described in Section E of this Attachment. The marked up TS pages are shown in Attachment B.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

TS Section 3/4.6.E provides operability requirements for the Primary System Boundary pressure safety valves. The number of safety valves, as well as the safety valve lift setpoints, is provided in TS Section 3/4.6.E. In the event plant conditions fail to meet the limiting conditions for operation for TS Section 3/4.6.E, action requirements are provided. Additionally, surveillance requirements are provided to demonstrate the operability of the safety valves.

TS action statement 3/4.6.E.1 requires the plant to achieve and maintain cold shutdown conditions if the safety valve function of one or more of the required safety valves is inoperable while the plant is in OPERATIONAL MODE(s) 1, 2, or 3.

**ATTACHMENT A, Proposed Changes to Technical Specifications for
Dresden Nuclear Power Station, Unit 2 and 3, Page 2 of 3**

**DESCRIPTION AND SAFETY ANALYSIS
FOR PROPOSED CHANGES**

The surveillance requirements provide adequate assurance that ASME B&PV Code requirements are maintained.

C. BASES FOR THE CURRENT REQUIREMENTS

The basis for the current TS requirement is to ensure the appropriate number of safety valves are available to protect the RPV from overpressure during upset conditions as required by the ASME B&PV Code. The current safety limit for the pressure boundary is 110 percent of the vessel design pressure. The safety valves are designed to provide overpressure protection in the event of an isolation of all main steam lines with a failure of the Main Steam Isolation Valves (MSIV) closure scram and a failure of all main steam line relief valve functions.

D. NEED FOR REVISION OF THE REQUIREMENT

The current TS requirement places undue burden on plant operation without an increase in the margin of safety. The current action statement requires the plant to achieve and maintain cold shutdown in the event that the safety valve function of one or more safety valves is inoperable. The current TS states that nine (9) valves are required to be operable to ensure that ASME Code requirements are met. However, transient analysis assumed that the Target Rock valve does not operate to compensate for the most severe pressurization transient, isolation of all main steam lines. Based on the determination of the analysis, only eight (8) safety valves are necessary to provide adequate protection against system over-pressurization. This proposed change reflects Dresden's Nuclear Power Station's specific analysis and design bases.

E. DESCRIPTION OF THE PROPOSED CHANGES

The requested change will reduce the number of required safety valves from nine (9) to eight (8) by excluding the Target Rock valve safety mode function. The valve lift pressure setpoints will be placed in the surveillance requirement section for the safety valves. Additionally, this proposal will relocate the surveillance requirements from TS section 3.6.E to TS section 4.6.E. The safety valve lift setpoints are verified by surveillance tests and more correctly specified under the surveillance section, TS Section 4.6.E, rather than the limiting condition for operation section. Relocation of the Reactor Coolant System safety valve lift pressure setpoints follows the format of NUREG 1433. Additionally, the TS pages for Unit 2 and Unit 3 will be combined. These pages were separated due to the previous exigent amendment (Reference 1). Footnote "c" associated with the Unit 3 TS page 3/4.6-7 will be deleted due to this information was a requirement for the Dresden Unit 3, Cycle 15, which has been completed and is therefore no longer an administrative requirement.

**DESCRIPTION AND SAFETY ANALYSIS
FOR PROPOSED CHANGES**

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

A review of the design basis for DNPS Unit 2 indicates that the Target Rock safety valve is not credited in either the safety or relief mode in any of the ASME transient analyses. The relief function is credited in other accident and transient events, therefore the relief function of the Target Rock valve remains available. The number of safety valves required is determined by the ASME B&PV code overpressure analysis which assumes MSIV closure, with no credit for direct scram from MSIV closure. For that analysis, no credit is given for either the safety or relief function of the Target Rock valve. Only three valves are required to meet ASME Code requirements. Eight valves provide relief in excess of 50% of turbine design steam flow. The additional valves provide further pressure relief margin and increase the reliability of the safety valve system. Other conservative assumptions used in the transient analyses, such as 103 percent of the set point value, the fastest MSIV closure time allowed by TS, and reduced safety valve flow rates, provide additional assurance that reducing the number of safety valves does not impact the results of the ASME B&PV Code overpressure analysis. In addition, a review of previous surveillance history of As-Found testing (4 refueling outages for Unit 2 and 3 refueling outages for Unit 3) has shown that these values have been within the required limits of ASME B&PV code requirements. Therefore, there is no risk associated with not crediting the Target Rock valve safety mode function.

G. IMPACT ON PREVIOUS SUBMITTALS

ComEd has reviewed the proposed changes regarding impact on any previous submittals, and has determined that there is no impact on any outstanding previous submittals.

H. SCHEDULE REQUIREMENTS

ComEd requests approval of this amendment prior August 18, 2000.

I. REFERENCES

- 1) Letter from R. M. Krich to USNRC dated May 5, 1999 "Exigent Application for Amendment to Appendix A, Technical Specifications, Change in the Number of Safety Valves Required for Reactor Vessel Overpressure Protection"
- 2) Letter from L. Rossbach to O.D. Kingsley dated June 4, 1999 "Issuance of Amendment"

ATTACHMENT B

**Proposed Changes to Technical Specifications for Dresden Nuclear Power Station,
Unit 2 and 3**

MARKED-UP PAGES FOR PROPOSED CHANGES

REVISED PAGES

Unit 2 3/4.6-7

Unit 3 3/4.6-7

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

E. Safety Valves

Excluding the Tanket Rock valve

The safety valve function of the reactor coolant system safety valves shall be OPERABLE in accordance with the specified code safety valve function lift settings established as:

- 1 safety valve @ 1135 psig $\pm 1\%$
- 2 safety valves @ 1240 psig $\pm 1\%$
- 2 safety valves @ 1250 psig $\pm 1\%$
- 4 safety valves @ 1260 psig $\pm 1\%$

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With the safety valve function of one or more of the above required safety valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
2. Deleted.

E. Safety Valves

1. Deleted.
2. At least once per 18 months, 1/2 of the safety valves shall be removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations. At least once per 40 months, the safety valves shall be rotated such that all safety valves are removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations.

B#

Verify the safety function lift setpoints^(a) of the required safety valves are as follows:

a The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressures.

1/1 Tanket Rock combination safety/relief valve

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

E. Safety Valves

Excluding the Target Rock valve, the safety valve function of the reactor coolant system safety valves shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With the safety valve function of one or more of the above required safety valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
2. Deleted

E. Safety Valves

1. Deleted.
2. At least once per 18 months, 1/2 of the safety valves shall be removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations. At least once per 40 months^(c), the safety valves shall be rotated such that all 9 safety valves are removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations.

Verify the safety function lift setpoints^(a) of the required safety valves are as follows:

- 1 safety valve^(b)@1135 psig ± 1%
- 2 safety valves @1240 psig ± 1%
- 2 safety valves @1250 psig ± 1%
- 4 safety valves @1260 psig ± 1%

a The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressures

b Target Rock combination safety/relief valve.

c The surveillance interval has been extended to 60 months for Unit 3, Cycle 15 only, and the provisions of Specification 4.0.B are not applicable to the 60-month interval.

ATTACHMENT C, Proposed Change to Technical Specifications for Dresden Nuclear Power Station, Unit 2 and 3, Page 1 of 2

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison (ComEd) Company has evaluated this proposed operating license amendment and determined that it involves no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

Involve a significant increase in the probability or consequences of an accident previously evaluated;

Create the possibility of a new or different kind of accident from any accident previously evaluated; or

Involve a significant reduction in a margin of safety.

ComEd proposes to change the required number of safety valves provided in Dresden Nuclear Power Station (DNPS) Unit 2 Technical Specifications Section 3.6.E, Primary System Boundary – Safety Valves from nine (9) to eight (8). Additionally, the Technical Specification (TS) pages for DNPS Unit 2 and Unit 3 will be combined. These pages were separated due to the previous exigent amendment (Reference 1). Footnote “c” associated with the Unit 3 TS page 3/4.6-7 will be deleted due to this information was a requirement for the DNPS Unit 3, Cycle 15, which has been completed and is therefore no longer an administrative requirement.

The determination that the criteria set forth in 10 CFR 50.92 are met for this amendment request is indicated below:

Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The probability of an evaluated accident is derived from the probabilities of the individual precursors to that accident. The consequences of an evaluated accident are determined by the operability of plant systems designed to mitigate those consequences. Limits have been established consistent with Nuclear Regulatory Commission (NRC) approved methods to ensure that fuel performance during normal, transient, and accident conditions is acceptable. The proposed change to reduce the number of required safety valves from nine (9) to eight (8) does not affect the ability of plant systems to adequately mitigate the consequences of an accident previously evaluated.

This conclusion was derived by evaluating all applicable analyses including thermal limit, American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) pressurization events, margin to un piped safety valve, anticipated transient analysis without scram events, Loss Of Coolant Accident (LOCA), station blackout, and 10 CFR 50 Appendix R analyses. Therefore, there is no increase in the probability or consequences of an accident previously evaluated because the analyses supports operation without crediting the Target Rock Safety Relief Valve safety mode function.

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The requested change has been previously evaluated, by evaluating all applicable analyses including thermal limit, ASME B&PV pressurization events, margin to un piped safety valve, anticipated transient analysis without scram events, station blackout, Loss of Coolant Accident, and 10 CFR 50 Appendix R analyses. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated because the analyses support operation without crediting the Target Rock safety relief valve safety function. No new failure modes will be introduced upon implementation of the proposed changes, therefore, the possibility of a new and different accident has not been created.

Does the change involve a significant reduction in a margin of safety?

Changing the required number of safety valves from nine (9) to eight (8) will not involve any reduction in margin of safety. This conclusion was derived by evaluating all existing analyses including thermal limit, ASME B&PV pressurization events, margin to un piped safety valve, anticipated transient analysis without scram events, station blackout, Loss of Coolant Accident, and 10 CFR 50 Appendix R analyses. The analyses previously evaluated remain valid, therefore a significant reduction in the margin of safety does not exist.

Therefore, based upon the above evaluation, ComEd has concluded that these changes do not constitute a significant hazards consideration.

**ATTACHMENT D, Proposed Change to Technical Specifications for Dresden
Nuclear Power Station, Unit 2 and 3**

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

Commonwealth Edison (ComEd) Company has evaluated this proposed operating license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. We have determined that this proposed license amendment request meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria:

- (i) the amendment involves no significant hazards consideration.

As demonstrated in Attachment C, this proposed amendment does not involve any significant hazards consideration.

- (ii) there is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

As documented in Attachment C, there will be no change in the types or significant increase in the amounts of any effluents released offsite.

- (iii) there is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in changes in the operation or configuration of the facility. There will be no changes in the level of controls or methodology used for processing of radioactive effluents or handling of solid waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.