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ComEd

June 15, 1999

JMHLTR #99-0069

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

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

Subject: Application for an Amendment to Appendix A Technical Specifications Section 3/4.7.D, "Primary Containment Isolation Valves"

Reference: Letter from T. Kim (NRC) to R. O. Anderson (Northern States Power Company) dated April 3, 1996

In accordance with 10 CFR 50.90, Commonwealth Edison (ComEd) Company requests a change to the Technical Specifications (TS) of Facility Operating License Nos. DPR-19 and DPR-25, for the Dresden Nuclear Power Station, Units 2 and 3, respectively. The proposed change is to TS Section 3/4.7.D, "Primary Containment Isolation Valves." Specifically, the proposed change is to eliminate the limit for any one main steam line isolation valve (MSIV) of $\leq$ 11.5 standard cubic feet per hour (scfh), and to replace that with the current aggregate value of $\leq$ 46 scfh for all MSIVs. The aggregate leakage value is based on the maximum pathway leakage as determined by the Primary Containment Leakage Rate Testing Program. As the total leakage rate for all MSIVs remains unchanged at 46 scfh, this revision has no impact on public health and safety. The approach of using an aggregate value for MSIV leakage instead of an individual valve leakage is consistent with approved changes for the Monticello Nuclear Generating Plant, per the referenced letter.

The proposed license amendment request offers potential radiation dose savings of 1 to 2.5 Rem per valve; potential outage schedule savings in excess of 5 days; and financial savings of nearly $145,000 per valve. Therefore, ComEd requests approval of this amendment prior to September 15, 1999, to support activities in the 16th refuel outage for Dresden Nuclear Power Station Unit 2, currently scheduled to begin on October 2, 1999.

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This 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 confirms that no significant hazards consideration is involved, and

4. Attachment D provides information supporting an Environmental Assessment.

This proposed amendment has been reviewed and approved by ComEd Onsite and Offsite Review in accordance with ComEd procedures.

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.

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

Respectfully,

J. M. Heffley
Site Vice President
Dresden Nuclear Power Station

Attachments

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Dresden Nuclear Power Station

STATE OF ILLINOIS

IN THE MATTER OF

Docket Nos. 50-237
50-249

COMMONWEALTH EDISON (ComEd) COMPANY

DRESDEN NUCLEAR POWER STATION - UNITS 2 AND 3

AFFIDAVIT

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

J. M. Heffley
Vice President
Dresden Nuclear Power Station

OFFICIAL SEAL
SHERRY L BUTTERFIELD
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES:05/23/00

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 15 day of June, 1999.

Sherry L. Butterfield
Notary Public

ATTACHMENT A

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGES

A. SUMMARY OF PROPOSED CHANGES

In accordance with 10 CFR 50.90, ComEd proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-19 and DPR-25, for the Dresden Nuclear Power Station, Units 2 and 3, respectively. The proposed change is to TS 3/4.7.D, "Primary Containment Isolation Valves." The proposed change allows verification of main steam line isolation valve (MSIV) leakage for the four main steam lines against an aggregate value of $\leq$ 46 standard cubic feet per hour (scfh) with no single valve leakage limit versus the current requirement of verifying leakage for any one MSIV to be $\leq$ 11.5 scfh. The proposed changes are described in detail in Section E of this Attachment. The marked up TS pages are proposed in Attachment B.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

Surveillance Requirement Section 4.7.D.6 "Primary Containment Isolation Valves" requires that "At the frequency specified by the Primary Containment Leakage Rate Testing Program, verify leakage for any one main steam line isolation valve when tested at P_t (25 psig) is $\leq$ 11.5 scfh." The MSIVs are tested at a pressure lower than P_a (48 psig) per an approved exemption, Section I, Reference 1 for Dresden Nuclear Power Station Units 2 and 3.

C. BASES FOR THE CURRENT REQUIREMENTS

Technical Specification Surveillance Requirement 4.7.D.6 limits the leakage rate per MSIV to $\leq$ 11.5 scfh. The MSIVs are periodically leak tested in accordance with the Primary Containment Leakage Rate Testing Program to verify the adequacy of their containment isolation function. The maximum allowed leakage rate of 11.5 scfh per valve or a total of 46 scfh for all four main steam lines is used in both the offsite and control room dose radiological evaluations. The MSIVs are tested at lower pressures in accordance with an approved exemption, but the leakage rate is included in Type B and C test totals.

D. NEED FOR REVISION OF THE REQUIREMENT

A review of the maintenance history for the MSIVs for the past three refueling outages for both Units 2 and 3 reveals a history of six local leak-rate test failures. The highest leakage for any failure was 33.1 scfh, and only one other MSIV's leakage rate exceeded 15 scfh. The total overhaul cost per valve is at least $125,000 plus another $19,000 to reduce radiation exposure to the maintenance crew. Radiation exposure for the crew has been up to 2.5 person-rem for a MSIV in the drywell and 1.0 person-rem for a MSIV outside primary containment (drywell). Had this amendment been in effect during the last six refueling outages, four MSIV overhauls could have been avoided while maintaining the maximum pathway leakage less than 46 scfh.

Overhaul of a MSIV is not normally on the outage critical path. However, if two valves in the same steam line failed the leak-rate test, under certain circumstances, the valves may need to be repaired in series which could extend the critical path for the outage.

Use of the aggregate value of ≤ 46 scfh would reduce unnecessary repair of the valves, which in turn, could eventually lead to require major valve repair or replacement. The proposed amendment would also result in significant ALARA savings and replacement power costs. The Boiling Water Reactor Owners' Group (BWROG) in a report, see Section I Reference 2, concluded that MSIV leakage could increase in excess of 200 scfh per valve without inhibiting the safety function of that valve. Therefore leakage in excess of 11.5 scfh is not indicative of a serious maintenance issue. This report also concluded that disassembly and refurbishment of the valves to meet unnecessarily low leakage limits could contribute to repeat failures.

The proposed Technical Specification amendment request for Dresden Nuclear Power Station, Units 2 and 3 clarifies that the total allowed leakage for all the MSIVs will be 46 scfh, four times the existing limit of ≤ 11.5 scfh that now exists per valve and eliminates the limit of ≤ 11.5 scfh for any single valve. This maintains the total MSIV leakage limit of 46 scfh while allowing some flexibility in scheduling repair work for valves that just exceed the original 11.5 scfh limit. Administrative leakage limits will be established for the individual valves. Use of the total allowed leakage limit of 46 scfh also allows the radiological dose limits to remain unchanged with no impact on public health and safety.

E. DESCRIPTION OF THE PROPOSED CHANGES

The proposed amendment request changes the maximum allowable MSIV leakage rate specified in TS Surveillance Requirement 4.7.D.6 from ≤ 11.5 scfh per valve to a maximum pathway leakage of ≤ 46 scfh total for all valves, with no single valve limit.

Current TS Surveillance Requirement 4.7.D.6 reads:

"At the frequency specified by the Primary Containment Leakage Rate Testing Program, verify leakage for any one main steam line isolation valve when tested at P_t (25 psig) is ≤ 11.5 scfh."

Proposed TS Surveillance Requirement 4.7.D.6 reads:

"In accordance with the methods and at the frequency specified by the Primary Containment Leakage Rate Testing Program, verify total maximum pathway leakage for all main steam isolation valves is ≤ 46 scfh when tested at P_t, (25 psig)."

The following will be added to the Bases page B 3/4.7-2 at the end of the section 3/4.7.D:

"The individual main steam isolation valve (MSIV) leakage limit has been replaced by the aggregate leakage limit of ≤ 46 scfh for all MSIVs. The leakage will be determined for the maximum pathway leakage in accordance with the Primary Containment Leakage Rate Testing Program. This is a very conservative total for MSIV leakage because it takes the MSIV with the maximum leakage in each steam line and sums the leakage for each of those valves to determine the maximum pathway leakage."

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

The maximum allowed leakage from the MSIVs remains the same, not to exceed 46 scfh for all four main steam lines, when tested at P_t, (25 psig). Therefore, the total release rate remains the same, and the radiological consequences on the public and the control room operator remain unchanged and within the guideline values contained within 10 CFR 100 and General Design Criteria 19.

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

For Dresden Nuclear Power Station, ComEd requests approval of this amendment prior to September 15, 1999, to support activities in the 16th refuel outage for Dresden Nuclear Power Station Unit 2, currently scheduled to begin on October 2, 1999.

I. REFERENCES

1. Letter from D. G. Eisenhut (NRC) to L. O. DelGeorge (ComEd) dated June 25, 1982.

2. NEDC-31858P Revision 2, September 1993, "BWROG Report for Increasing MSIV Leakage Rate Limits and Elimination of Leakage Control Systems."