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NLS2006010
March 15, 2006

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Request for Exemption from Certain Requirements of 10 CFR 50, Appendix J and Corresponding Change to Technical Specification 5.5.12, Primary Containment Leakage Rate Testing Program
Cooper Nuclear Station, Docket No. 50-298, License No. DPR-46

The purpose of this letter is for Nebraska Public Power District (NPPD) to request an exemption from certain requirements of 10 CFR 50 Appendix J, Option B in accordance with 10 CFR 50.12 Additionally, NPPD requests a corresponding amendment to Facility Operating License DPR-46 in accordance with provisions of 10 CFR 50.4 and 10 CFR 50.90 to revise the Cooper Nuclear Station (CNS) Technical Specification (TS) 5.5.12, Primary Containment Leak Rate Testing Program. The proposed amendment adds two sub-paragraphs in TS 5.5.12 to note this exemption.

NPPD requests approval of the proposed exemption and amendment by September 15, 2006, to support contingency action in Refuel Outage RE23. Once approved, implementation will be performed within 30 days.

Attachment 1 provides NPPD's request for exemption from certain requirements of 10 CFR 50 Appendix J, Option B. Attachment 2 provides NPPD's evaluation of the proposed TS change. Attachment 3 provides the proposed changes to the current CNS TS on marked up pages. Attachment 4 provides the revised TS pages in final typed format. Attachment 5 provides associated TS Bases changes for information.

This proposed TS change has been reviewed by the necessary safety review committees (Station Operations Review Committee and Safety Review and Audit Board). Amendments to the CNS Facility Operating License through Amendment 217 dated March 10, 2006, have been incorporated into this request. NPPD has concluded that the proposed TS changes do not involve a significant hazards consideration and they satisfy the environmental consideration categorical exclusion criteria of 10 CFR 51.22(c)(9). This request is submitted under oath or affirmation pursuant to 10 CFR 50.30(b).

A017

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By copy of this letter and its attachments, the appropriate State of Nebraska official is notified in accordance with 10 CFR 50.91(b)(1). Copies to the NRC Region IV office and the CNS Resident Inspector are also being provided in accordance with 10 CFR 50.4(b)(1).

Should you have any questions or require additional information, please contact Paul Fleming, Licensing Manager, at (402) 825-2774.

I declare under penalty of perjury that the foregoing is true and correct.

Executed On: 3/15/06
Date

Sincerely,

Randall K. Edington
Vice President-Nuclear and
Chief Nuclear Officer

/em

Attachments

cc: Regional Administrator w/attachments
USNRC - Region IV

Senior Project Manager w/attachments
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/attachments
USNRC - CNS

Nebraska Health and Human Services w/attachments
Department of Regulation and Licensure

NPG Distribution w/o attachments

CNS Records w/attachments

REQUEST FOR EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 50, APPENDIX J

1.0 INTRODUCTION

10 CFR 50.54(o) requires that primary containments be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J specifies the leakage rate test requirements, schedules and acceptance criteria for test of the leak-tight integrity of primary reactor containment and systems and components that penetrate the containment. In Option B of Appendix J, Paragraph III.A requires that the overall integrated leakage rate (Type A test) must not exceed the allowable leakage (L_a) with margin, as specified in the Technical Specifications (TS), and Paragraph III.B requires the sum of the leakage of Type B and Type C leakage rate tests to be less than the performance criterion (L_a) with margin as specified in the TS. These tests, as specified in the 10 CFR 50 Appendix J definitions, include the contribution from the four main steam line penetrations, referred to as Main Steam Isolation Valve (MSIV) leakage. MSIV leakage consists of the combined leakage of the four main steam lines where each line contains two Main Steam Isolation Valves (MSIV's) in series, and is tested in accordance with TS Surveillance Requirement 3.6.1.3.10. Concurrent with the request for license amendment, Cooper Nuclear Station (CNS) hereby requests an exemption from the requirements of 10 CFR 50, Appendix J, Option B, Paragraphs III.A and III.B to permit exclusion of the MSIV leakage contribution from the overall integrated leakage rate Type A test measurement and from the sum of the leakage rates from Type B and Type C tests. This request for exemption is similar to exemptions granted for Vermont Yankee Nuclear Power Station on March 17, 2005 (TAC No. MC0253), and for Browns Ferry Nuclear Plant (Units 2 and 3) on March 14, 2000 (TAC Nos. MA6815 and MA6816). However, it is different in that CNS is not requesting an increase in the allowable leakage rate criteria through the MSIV's.

2.0 10 CFR 50.12 – SPECIFIC EXEMPTIONS

10 CFR 50.12 states that the Commission will not consider granting an exemption unless special circumstances are present. CNS believes this request meets the criterion of a special circumstance as defined in 50.12(a)(2)(ii), which states, "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

Applicable Rule

The pertinent rule is 10 CFR 50, Appendix J, Option B, Paragraphs III.A and III.B, which state in part:

(1) Type A Test

The leakage rate must not exceed the allowable leakage rate (L_a) with margin, as specified in the Technical Specifications.

And

(2) Type B and C Tests

The tests must demonstrate that the sum of the leakage rates at accident pressure of Type B tests, and pathway leakage rates from Type C tests, is less than the performance criterion (L_a) with margin, as specified in the Technical Specification.

The underlying purpose of the rule is to ensure the actual radiological consequences of design basis accidents (DBA's) remain below those analyzed as demonstrated through the measured containment and local leakage rate tests.

3.0 REQUESTED EXEMPTION

NPPD requests a permanent exemption from: 1) the requirements of 10 CFR 50, Appendix J, Option B, Paragraph III.A, to allow exclusion of the MSIV leakage from the overall integrated leakage rate measured when performing a Type A test, and 2) the requirements of 10 CFR 50, Appendix J, Option B, Paragraph III.B, to allow exclusion of the MSIV leakage from the combined leakage rate of all penetrations and valves subject to Type B and C tests.

4.0 JUSTIFICATION

By Amendment 180 (Reference 1), CNS was authorized to use 10 CFR 50, Appendix J, Option B provisions for Type A, Type B and Type C tests. MSIV leakage currently is included in the Type A overall containment integrated leakage rate total, and added to the combined Type B and C leakage rate total.

10 CFR50, Appendix J testing ensures primary containment leakage following a design basis Loss-of-Coolant Accident (LOCA) will be within the allowable leakage limits specified in plant Technical Specifications (TS) and assumed in the safety analysis for determining radiological consequences. For return to power, the CNS acceptance criteria for the Integrated Leakage Rate Test, or Type A test, is $\leq 0.75\ L_a$, and $< 0.60\ L_a$ for combined Type B and C tests.

In Reference 2, the NRC endorsed NEDC-31858P, Revision 2, "BWROG Report for Increasing MSIV Leakage Rate Limits and Elimination of Leakage Control Systems." This Topical Report describes the need for this exemption in the context of proposed increases in main steam line leakage rates. Although NPPD is not requesting increased main steam line leakage as part of this application, NRC endorsement of the Topical Report underscores the fundamental acceptability of this exemption request from a regulatory perspective. As approved for CNS in References 3

and 4, the radiological consequences of MSIV leakage is modeled as a separate Primary Containment release path to the environment that bypasses Secondary Containment. The LOCA dose calculation assumes all MSIV leakage migrates to the Main Condenser. However, since MSIV leakage is also included as part of L_a (0.635 weight percent per day) in the Primary-to-Secondary Containment modeling, it is being "double counted".

MSIV leakages are periodically measured as part of the 10 CFR50, Appendix J program to ensure the leakage rates will not exceed the TS limit, which is the maximum rate assumed in the safety analysis for radiological consequences. Therefore, since the MSIV leakage is considered a separate leakage path and its effects are specifically accounted for in the dose analysis, it is appropriate to exclude MSIV leakage from Type A and from Type B and C test result totals. As such, the requirement of 10 CFR 50, Appendix J, Option B, Paragraphs III.A and III.B, that the MSIV leakage be included as part of Type A and as part of Type B and C test results is not necessary to achieve the underlying purpose of the rule.

Approval of this exemption request will not result in any change to the LOCA dose calculation. The L_a leakage value of 0.635 weight percent per day to the Secondary Containment is unchanged.

In summary, the CNS Primary Containment Leakage Rate Testing Program will more closely align with the assumptions used in associated accident consequence analyses. Corresponding changes to the TS which implement the requested exemption are also proposed.

5.0 AUTHORIZED BY LAW

The proposed exemption is authorized by law, and has been previously granted to other licensees. For example, References 5 and 6 from the NRC granted this exemption to Vermont Yankee Nuclear Power Station and to the Tennessee Valley Authority for the Browns Ferry Nuclear Plant, Units 2 and 3.

6.0 NO UNDUE RISK TO PUBLIC HEALTH AND SAFETY

The exemption presents no undue risk to public health and safety. MSIV leakage for the CNS design basis accident analysis has been accounted for separately from the overall leakage associated with the primary containment boundary (Type A) and local leakage rate total (Type B and C). As such, the inclusion of MSIV leakage as part of Type A and as part of Type B and C test results is not necessary to ensure the actual radiological consequences of DBA's remain below those previously evaluated and accepted. Nor does it result in any change to the previously evaluated consequences of them. As such, the proposed exemption presents no undue risk to public health and safety.

7.0 CONSISTENT WITH COMMON DEFENSE AND SECURITY

This exemption is consistent with the common defense and security of the United States. The Commission's Statement of Considerations in support of the exemption rule noted with approval in the explanation as set forth in Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), LBP-84-45, 20 NRC 1343, 1400 (October 29, 1984) that the term "common defense and security" refers principally to the safeguarding of special nuclear material, the absence of foreign control over the applicant, the protection of Restricted Data, and the availability of special nuclear material for defense needs. Granting exemption does not affect any of these matters and, thus, is consistent with common defense and security.

8.0 SPECIAL CIRCUMSTANCES

Special circumstances are present which warrant this exemption. The applicable criterion from 10 CFR 50.12(a)(2) is identified as:

(ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of the rule is to ensure the actual radiological consequences of DBA's remain below those previously evaluated and accepted as demonstrated by the actual, periodic measurement of containment leakage (Type A) and local leakage rate measurement (Type B and C). Although Type A and Type B and C leakage tests are defined as a measurement of those leakages, inclusion of the MSIV leakage results in double counting, once as a part of the actual containment leakage and again as part of MSIV leakage used in dose calculations. This exemption resolves the special circumstance in which requiring inclusion of MSIV leakage in the Type A and Type B and C leakage is not necessary to achieve the underlying purpose of the rule.

9.0 ENVIRONMENTAL IMPACT

The exemption does not cause additional construction or operational activities to be conducted that may significantly affect the environment. No plant configuration changes are required.

The exemption does not result in an increase in adverse environmental impact previously evaluated, does not result in a change to effluents or power levels, and does not affect any matter not previously reviewed by the NRC which may have a significant adverse environmental impact.

The exemption does not alter the land use for the plant; water uses or impacts on water quality; air or ambient air quality. It does not affect the ecology of the site and vicinity and does not affect the noise emitted by the station. Therefore, the exemption does not effect the analysis of environmental impacts described in the environmental report.

10.0 REFERENCES

1. Letter from Lawrence J. Burkhart, USNRC Project Directorate IV, to J. H. Swailes, NPPD, dated March 3, 2000, Cooper Nuclear Station – Issuance of Amendment re: Changes to TS to Implement 10 CFR 50 Appendix J, Option B, and Changes to the TS Associated with Containment Airlock Interlock Mechanism, Isolation Valve Time Testing, and Credit for Administrative Means of Securing Isolation Devices. (TAC NO. MA 6877) – Amendment 180.

2. Letter from Frank M. Akstulewicz, USNRC, to T.A. Green, BWROG Group Projects, dated March 3, 1999, Safety Evaluation of GE Topical Report, NEDC-31858P Revision 2, September 1993.

3. Letter from Mohan C. Thadani, USNRC Project Directorate IV, to Clay C. Warren, NPPD, dated February 21, 2003, Issuance of Amendment Regarding Design Basis Accidents' Radiological Dose Assessment Methodologies, and Revision to License Condition 2.C.(6) (TAC NO. MB4654) – Amendment 196

4. Letter from Michelle C. Honcharik, USNRC Project Directorate IV, to Randall K. Edington, NPPD, dated September 1, 2004, Issuance of Amendment on Loss-of-Coolant Accident (LOCA) Dose Assessment Methodology, and Resolution of Remaining License Condition 2.C.(6) Issues (TAC NO. MC1572) – Amendment 206

5. Letter from Richard B. Ennis, USNRC Project Directorate I, to Michael Kansler, Entergy Nuclear Operations Inc., dated March 17, 2005, Vermont Yankee Nuclear Power Station - Issuance of Exemption from 10 CFR Part 50, Appendix J (TAC NO. MC0253)

6. Letter from William O. Long, USNRC Project Directorate II, to J. A. Scalice, Tennessee Valley Authority, dated March 14, 2000, Browns Ferry Nuclear Plant, Units 2 and 3 – Issuance of Exemption from 10 CFR Part 50, Appendix J (TAC Nos. MA6815 and MA6816)

NPPD Evaluation

Main Steam Isolation Valve Leakage Exemption from Primary Containment Leak Rate Testing Program Type A and Type B and C Tests

Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Revised Page
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1.0 DESCRIPTION

This correspondence is a request to amend Operating License DPR-46 for Cooper Nuclear Station (CNS). The proposed changes would revise CNS Technical Specification (TS) 5.5.12, Primary Containment Leak Rate Testing Program, by adding two sub-paragraphs to note exemptions from Section III.A and Section III.B of 10CFR Part 50, Appendix J, Option B. These two sub-paragraphs allow the leakage contribution from the four main steam line penetrations, referred to as the Main Steam Isolation Valve (MSIV) leakage, to be excluded.

2.0 PROPOSED CHANGE

License Amendment 180 (Reference 1) authorized NPPD to use 10 CFR 50, Appendix J, Option B provisions for Type A, and for Type B and C tests and provided the current form of TS 5.5.12. TS 5.5.12.a requires a program to establish the leakage rate testing of the Primary Containment (PC) as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program must be in accordance with the guidelines in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September, 1995, as modified by exceptions that follow. Two previously approved exemptions for CNS are identified as sub-paragraphs 1 and 2 of TS 5.5.12.a. An additional exemption was requested in January, 2006 as a new sub-paragraph 3, but it has not yet been approved. This proposed change would add two more sub-paragraphs (4 and 5) to reflect the exemptions of the leakage contribution from the MSIV's in determination of Primary Containment Leakage for comparison to the limits of $< 0.60\ L_a$ and $\leq 0.75\ L_a$.

The first additional sub-paragraph provides an exemption from Section III.A of 10CFR Part 50, Appendix J, Option B, to allow the leakage contribution from the MSIV's to be excluded from the overall integrated leakage rate from Type A testing. This is an exception to Section 3.2 of ANSI/ANS 56.8-1994, "Containment System Leakage Testing Requirements," and Sections 8.0 and 9.0 of NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10CFR50, Appendix J."

The second additional sub-paragraph provides an exemption from Section III.B of 10CFR Part 50, Appendix J, Option B, to allow the leakage contribution from the MSIV's to be excluded from the sum of the leakage rates of Type B and Type C tests. This is an exception to Section 6.4.4 of ANSI/ANS 56.8-1994, "Containment System Leakage Testing Requirements," and Section 10.2 of NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10CFR50, Appendix J."

3.0 BACKGROUND

The CNS Primary Containment (PC) system is a Boiling Water Reactor Mark 1 containment. It consists of a drywell, which encloses the reactor vessel and recirculation pumps, a pressure suppression chamber (torus) which stores a large amount of water, a connecting vent system

between the drywell and the suppression chamber, and isolation valves. The four Main Steam lines that penetrate the primary containment boundary each have two 24-inch diameter Main Steam Isolation Valves (MSIV's) installed in series for a total of eight valves, and are tested in accordance with TS Surveillance Requirement 3.6.1.3.10. The MSIV's prevent damage to the fuel barrier by limiting the loss of reactor coolant and by limiting release of radioactive materials by maintaining the primary containment barrier. After exiting secondary containment, the four Main Steam lines connect to a common equalizing header. The LOCA dose calculation, as approved in License Amendments 196 and 206 (References 2 and 3), models Primary-to-Secondary Containment leakage at the L_a rate of 0.635 weight percent per day. A separate release path is modeled for MSIV leakage.

Currently, MSIV leakage is included in the Type A overall containment integrated leakage rate total and added to the combined Type B and C leakage rate total. These totals are compared to TS 5.5.12 leakage rate acceptance criteria which are $\leq 0.75\ L_a$ for Type A tests, and $< 0.60\ L_a$ for Type B and C tests. Since MSIV leakage is part of the total, MSIV leakage contributes to reducing the margin to acceptance criteria limits.

4.0 TECHNICAL ANALYSIS

10 CFR50, Appendix J testing ensures primary containment leakage following a design basis LOCA will be within the allowable leakage limits specified in plant Technical Specifications (TS) and assumed in the safety analysis for determining radiological consequences. For return to power, the CNS acceptance criteria for the Integrated Leakage Rate Test, or Type A test, is $\leq$ $0.75\ L_a$, and $< 0.60\ L_a$ for combined Type B and C tests.

As endorsed by NRC in Reference 4, the radiological consequences of main steam line leakage is modeled as a separate Primary Containment release path to the environment that bypasses Secondary Containment. The Loss-of-Coolant Accident (LOCA) dose calculation assumes all MSIV leakage migrates to the Main Condenser and is released to the environment via the Turbine Building. However, since MSIV leakage is also included as part of L_a (0.635 weight percent per day) in Primary-to-Secondary Containment modeling, it is being "double counted".

MSIV leakages are periodically measured as part of the 10 CFR50, Appendix J program to ensure the leakage rates will not exceed the TS limit, which is the maximum rate assumed in the safety analysis for radiological consequences. Therefore, since the MSIV leakage is considered a separate leakage path and its effects are specifically accounted for in the dose analysis, it is appropriate to exclude MSIV leakage from Type A and from Type B and C test result totals. As such, the requirement of 10 CFR 50, Appendix J, Option B, Paragraphs III.A and III.B, that the MSIV leakage be included as part of Type A and Type B and C test results is not necessary to achieve the underlying purpose of the rule.

Approval of this proposed TS change will not result in any change to the LOCA dose calculation. L_a leakage value of 0.635 weight percent per day to the Secondary Containment is unchanged.

In summary, CNS Primary Containment Leakage Rate Testing Program will more closely align with assumptions used in associated accident consequence analyses. The corresponding exemption is requested in Attachment 1. Related TS Bases changes are provided for information.

5.0 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

Nebraska Public Power District (NPPD) has requested NRC to amend Operating License DPR-46 for Cooper Nuclear Station (CNS) to revise Technical Specification (TS) 5.5.12, Primary Containment Leak Rate Testing Program. The proposed change adds two sub-paragraphs to note exemptions from Sections III.A and III.B of 10CFR Part 50, Appendix J, Option B, that allow the leakage contribution from the four main steam line penetrations, referred to as Main Steam Isolation Valve (MSIV) leakage, to be excluded. NPPD's exemption request supporting this TS change is concurrently submitted in accordance with 10 CFR 50.12 and is based on the justification that including MSIV leakage as part of Type A and Type B and C test results is not necessary to achieve the underlying purpose of 10 CFR 50, Appendix J, Option B, Paragraphs III.A and III.B.

NPPD has evaluated whether a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   This proposed change to TS 5.5.12 does not modify existing structures, systems or components (SSC's) of the plant, and it does not introduce new SSC's. It does not change assumptions, methodology or results of previously evaluated accidents in the Updated Safety Analysis Report. It does not change operating procedures or administrative controls that affect the functions of SSC's. By excluding MSIV leakage from Type A and Type B and C test results, this change will make the CNS Primary Containment Leakage Rate Testing Program more closely aligned with the assumptions used in associated accident consequence analyses. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

This proposed change to TS 5.5.12.a does not modify existing SSC's of the plant, and it does not introduce new SSC's. Thus, it does not affect the design function or operation of SSC's involved, and it does not introduce a new accident initiator. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

Since MSIV leakage bypasses the containment and its filtration system (Standby Gas Treatment System) during a Loss-of-Coolant Accident (LOCA), the effects on release to the environment is analyzed and specifically accounted for in the CNS dose analysis methodology approved by Amendments 196 and 206. This proposed change to exclude MSIV leakage from Type A and Type B and C test results does not change dose analysis values, and thus, does not affect actual margin in the dose analysis. Therefore, the proposed change does not involve a significant reduction in an actual margin of safety.

Based on the above, NPPD concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

1. 10 CFR 50.54(o) requires that primary containments be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J specifies the leakage rate test requirements, schedules and acceptance criteria for test of the leak-tight integrity of primary reactor containment and systems and components that penetrate the containment. Option B, Paragraph III.A requires that the overall integrated leakage rate must not exceed the allowable leakage (L_a) with margin, as specified in the Technical Specifications (TS). 10 CFR 50, Appendix J, Option B, Paragraph III.B requires the sum of the leakage of Type B and C leakage rate tests be less than the performance criterion (L_a) with margin as specified in the TS.

License Amendment 180 authorized CNS to use 10 CFR 50, Appendix J, Option B provisions for Type A, Type B and C tests and provided the current form of CNS TS 5.5.12. CNS has implemented this amendment, applies these criteria, and thus complies with the rule. Excluding MSIV leakage does not change this compliance.

2. 10 CFR 50.12 states that the Commission will not consider granting an exemption unless special circumstances are present. Paragraph 50.12(a)(2)(ii), identifies one special circumstance as, "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

   Since MSIV leakage bypasses the containment and its filtration system (Standby Gas Treatment System) during a LOCA, the effects on release to the environment is analyzed and specifically accounted for in the CNS dose analysis methodology approved by Amendments 196 and 206. Since it is accounted for in the radiological consequence analysis, including MSIV leakage as part of PC leakage rate tests accounts for the leakage twice and is unnecessary to assure the leakage into the containment is within its limits. Thus, the requirement of 10 CFR 50, Appendix J, Option B, Paragraphs III.A and III.B, to include the MSIV leakage as part of Type A and Type B and C test results is not necessary to achieve the underlying purpose of the rule.

   TS 5.5.12.a identifies two approved exemptions from Appendix J to 10 CFR 50 for CNS as sub-paragraphs 1 and 2 to allow reverse direction local leak rate testing of four containment isolation valves at Cooper Nuclear Station, and to allow MSIV testing at 29 psig and expansion bellows testing at 5 psig between the plies. A third sub-paragraph is being reserved for an exemption requested on January 30, 2006 (Reference 6) that has not yet been approved for a one-time extension of containment leakage rate interval. This proposed change to TS 5.5.12 does not affect either of the previously approved exemptions nor the third requested exemption.

3. The construction of CNS predated the 1971 issuance of 10 CFR 50 Appendix A, "General Design Criteria for Nuclear Power Plants." CNS is designed to be in conformance with the intent of the Draft General Design Criteria (GDC's) published in the Federal Register on July 11, 1967, except where commitments have been made to specific 1971 GDC's. Evaluation of the Draft GDC's specifically applicable to this License Amendment Request is as follows.

   a. Criterion 54, Containment Leakage Rate Testing, states, "Containment shall be designed so that integrated leakage rate testing can be conducted at design pressure after completion and installation of all penetrations and the leakage rate measured over a sufficient period of time to verify its conformance with required performance."

      The proposed amendment does not alter the design of the containment. As a result, the ability to conduct leakage rate testing at design pressure would

not be adversely impacted. Thus, the requirements of this criterion will continue to be met with the proposed exclusion of MSIV leakage.

b. Criterion 55, Containment Periodic Leakage Rate Testing, states, "The containment shall be designed so that integrated leakage rate testing can be done periodically at design pressure during plant lifetime."

The proposed amendment does not alter the design of the containment. As a result, the ability to perform periodic testing of the containment would not be adversely impacted. Thus, the requirements of this criterion will continue to be met with the proposed exclusion of MSIV leakage.

c. Criterion 57, Provisions for Testing Isolation Valves, states, "Capability shall be provided for testing functional operability of valves and associated apparatus essential to the containment function for establishing that no failure has occurred and for determining that valve leakage does not exceed acceptable limits."

Excluding MSIV leakage rate does not affect CNS conformance to this Draft GDC. Leak rate testing will still provide assurance that no failure has occurred and that valve leakage does not exceed acceptable limits.

4. On December 30, 2005, NPPD submitted a License Amendment Request (Reference 5) to establish a combined main steam line leakage rate technical specification. On January 30, 2006, NPPD submitted a license amendment request (Reference 6) for a one-time extension of containment integrated leakage rate test interval.

These are separate issues that are unaffected by excluding MSIV leakage. Therefore, this proposed change to TS 5.5.12 does not affect either of those submittals.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.3 Applicable Industry Precedence

The exemption reflected in this license amendment request is similar to Appendix J exemptions granted to Vermont Yankee Nuclear Power Station on March 17, 2005 (Reference 7), and to Browns Ferry Nuclear Plant (Units 2 and 3) on March 14, 2000

(Reference 8). Both submittals included changes to the MSIV leakage limits. This proposed TS change, however, is different in that it is not requesting an increase in the allowable leakage rate criteria through MSIV's.

6.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 REFERENCES

1. Letter from Lawrence J. Burkhart, USNRC Project Directorate IV, to J. H. Swailes, NPPD, dated March 3, 2000, Cooper Nuclear Station – Issuance of Amendment re: Changes to TS to Implement 10 CFR 50 Appendix J, Option B, and Changes to the TS Associated with Containment Airlock Interlock Mechanism, Isolation Valve Time Testing, and Credit for Administrative Means of Securing Isolation Devices. (TAC NO. MA 6877) – Amendment 180.

2. Letter from Mohan C. Thadani, USNRC Project Directorate IV, to Clay C. Warren, NPPD, dated February 21, 2003, Issuance of Amendment Regarding Design Basis Accidents' Radiological Dose Assessment Methodologies, and Revision to License Condition 2.C.(6) (TAC NO. MB4654) – Amendment 196

3. Letter from Michelle C. Honcharik, USNRC Project Directorate IV, to Randall K Edington, NPPD, dated September 1, 2004, Issuance of Amendment on Loss-of-Coolant Accident (LOCA) Dose Assessment Methodology, and Resolution of Remaining License Condition 2.C.(6) Issues (TAC NO. MC1572) – Amendment 206

4. Letter from Frank M. Akstulewicz, USNRC, to T.A. Green, BWROG Group Projects, dated March 3, 1999, Safety Evaluation of GE Topical Report, NEDC-31858P Revision 2, September 1993.

5. Letter from Stewart B. Minahan, NPPD, to USNRC Document Control Desk dated December 30, 2005, License Amendment Request To Establish a Combined Main Steam Line Leakage Rate Technical Specification – NLS2005102

6. Letter from Randall K. Edington, NPPD, to USNRC Document Control Desk dated January 30, 2006, License Amendment Request for a One-Time Extension Of Containment Integrated Leakage Rate Test Interval – NLS2006002

7. Letter from Richard B. Ennis, USNRC Project Directorate I, to Michael Kansler, Entergy Nuclear Operations Inc., dated March 17, 2005, Vermont Yankee Nuclear Power Station - Issuance of Exemption from 10 CFR Part 50, Appendix J (TAC NO. MC0253)

8. Letter from William O. Long, USNRC Project Directorate II, to J. A. Scalice, Tennessee Valley Authority, dated March 14, 2000, Browns Ferry Nuclear Plant, Units 2 and 3 – Issuance of Exemption from 10 CFR Part 50, Appendix J (TAC Nos. MA6815 and MA6816)

Proposed Technical Specification Change (Mark-Up)

Revised Page
5.0-16

INSERT

3. [Reserved]

4. Exemption from Section III.A of 10CFR Part 50, Appendix J, Option B, to allow the contribution from MSIV leakage to be excluded from the overall integrated leakage rate from Type A tests (date).

5. Exemption from Section III.B of 10CFR Part 50, Appendix J, Option B, to allow the contribution from MSIV leakage to be excluded from the sum of the leakage rates from Type B and Type C tests (date).

NOTES (not to be inserted)

Sub-paragraph 3 is reserved for the one-time extension of Containment Integrated Leakage Rate Test Interval requested in NPPD letter NLS2006002 dated January 30, 2006.

Parenthetical "date" in sub-paragraphs 4 and 5 will be replaced with the date of Amendment issuance of this request.

5.5.11 Safety Function Determination Program (SFDP) (continued)

For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

1. A required system redundant to system(s) supported by the inoperable support system is also inoperable; or

2. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or

3. A required system redundant to support system(s) for the supported systems b.1 and b.2 above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

5.5.12 Primary Containment Leakage Rate Testing Program

a. A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September, 1995, as modified by the following exceptions:

1. Exemption from Appendix J to 10CFR Part 50 to allow reverse direction local leak rate testing of four containment isolation valves at Cooper Nuclear Station (TAC NO. M89769) (July 22, 1994).

2. Exemption from Appendix J to 10CFR Part 50 to allow MSIV testing at 29 psig and expansion bellows testing at 5 psig between the plies (Sept. 16, 1977).

Insert

b. The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a, is 58.0 psig. The containment design pressure is 56.0 psig.

c. The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.635% of containment air weight per day.

(continued)

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5.5.11 Safety Function Determination Program (SFDP) (continued)

For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

1. A required system redundant to system(s) supported by the inoperable support system is also inoperable; or

2. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or

3. A required system redundant to support system(s) for the supported systems b.1 and b.2 above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

5.5.12 Primary Containment Leakage Rate Testing Program

a. A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September, 1995, as modified by the following exceptions:

1. Exemption from Appendix J to 10CFR Part 50 to allow reverse direction local leak rate testing of four containment isolation valves at Cooper Nuclear Station (TAC NO. M89769) (July 22, 1994).

2. Exemption from Appendix J to 10CFR Part 50 to allow MSIV testing at 29 psig and expansion bellows testing at 5 psig between the plies (Sept. 16, 1977).

3. [Reserved]

4. Exemption from Section III.A of 10CFR Part 50, Appendix J, Option B, to allow the leakage contribution from MSIV leakage to be excluded from the overall integrated leakage rate from Type A tests (date).

(continued)

5.5.12 Primary Containment Leakage Rate Testing Program (continued)

5. Exemption from Section III.B of 10CFR Part 50, Appendix J, Option B, to allow the contribution from MSIV leakage to be excluded from the sum of the leakage rates from Type B and Type C tests (date).

b. The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a, is 58.0 psig. The containment design pressure is 56.0 psig.

c. The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.635% of containment air weight per day.

d. Leakage Rate acceptance criteria are:

1. Containment leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are, $<0.60\ L_a$ for the Type B and C tests and $\leq 0.75\ L_a$ for Type A tests.

2. Air lock testing acceptance criteria are:

a. Overall air lock leakage rate is $\leq$ 12 scfh when tested at $\geq P_a$.

b. Overall air lock leakage rate is $\leq$ 0.23 scfh when tested at $\geq$ 3.0 psig.

e. The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

f. The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

Associated Technical Specification Bases Changes
(for information)

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BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1

Maintaining the primary containment OPERABLE requires compliance with the visual examinations and leakage rate test requirements of the Primary Containment Leakage Rate Testing Program. Failure to meet the air lock leakage limit (SR 3.6.1.2.1) ~~or the main steam isolation valve leakage limit (SR 3.6.1.3.10)~~ does not necessarily result in a failure of this SR. The impact of the failure to meet ~~these~~ **this** SRs must be evaluated against the Type A~~,~~ **and Type** B~~,~~ and C acceptance criteria of the Primary Containment Leakage Rate Testing Program.

As left leakage prior to the first startup after performing a required Primary Containment Leakage Rate Testing Program leakage test is required to be < 0.6 L_a for combined Type B and C leakage, and ≤ 0.75 L_a for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. The Frequency is required by the Primary Containment Leakage Rate Testing Program.

SR 3.6.1.1.2

Maintaining the pressure suppression function of primary containment requires limiting the leakage from the drywell to the suppression chamber. Thus, if an event were to occur that pressurized the drywell, the steam would be directed through the downcomers into the suppression pool. This SR is a leak test that confirms that the bypass area between the drywell and the suppression chamber is less than a one inch diameter hole. This ensures that the leakage paths that would bypass the suppression pool are within allowable limits.

Satisfactory performance of this SR can be achieved by establishing a known differential pressure between the drywell and the suppression chamber and verifying that the pressure in either the suppression chamber or the drywell

(continued)

Correspondence Number: NLS2006010

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		