



NLS2003022 July 15, 2003

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

Subject: License Amendment Request to Revise Technical Specification Surveillance

Requirements for Locked, Sealed, or Secured Secondary Containment Isolation

Valves (SR 3.6.4.2.1)

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

Reference: TSTF-45, Revision 2, "Exempt Verification of CIVs that are not Locked, Sealed,

or Otherwise Secured"

The purpose of this letter is for the Nebraska Public Power District (NPPD) to request an amendment to Facility Operating License DPR-46 in accordance with the provisions of 10 CFR 50.4 and 10 CFR 50.90 to revise the Cooper Nuclear Station (CNS) Technical Specifications (TS). The proposed amendment would modify TS requirements for surveillance of the status of Secondary Containment Isolation Valves and Blind Flanges (SCIVs) in Surveillance Requirement (SR) 3.6.4.2.1. This change will add a provision to exempt SCIVs that are locked, sealed, or otherwise secured in the closed position from the 31 day requirement for verifying they are in the proper position. This will lessen the burden on CNS personnel and potentially reduce the occupational dose received while performing this surveillance. The proposed change is consistent with the Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-45, Revision 2, "Exempt Verification of CIVs that are not Locked, Sealed, or Otherwise Secured."

NPPD requests NRC approval of the proposed TS change and issue of the requested license amendment by January 31, 2004. Once approved, the amendment will be implemented within 60 days.

Attachment 1 provides a description of the TS change, the basis for the amendment, the no significant hazards consideration evaluation pursuant to 10 CFR 50.91(a)(1), and the environmental impact evaluation pursuant to 10 CFR 51.22. Attachment 2 provides the proposed changes to the current CNS TS and Bases (provided for information) on marked up pages. Attachment 3 provides the revised TS and Bases pages in final typed format.



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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 198 issued March 17, 2003, have been incorporated into this request. NPPD has concluded that the proposed change does not involve a significant hazards consideration and that it satisfies the categorical exclusion criterion of 10 CFR 51.22(c)(9). This request is submitted under oath pursuant to 10 CFR 50.30(b).

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 concerning this matter, please contact Mr. Paul Fleming at (402) 825-2774.

Sincerely, Clay C. Wall

Clay C. Warren

Vice President of Nuclear Energy

/rar

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

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

NPG Distribution w/o attachments

Records w/ attachments

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#### **Affidavit**

STATE OF NEBRASKA	)
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	)
NEMAHA COUNTY	١
INDIVIDITA COOM I	J

Clay C. Warren, being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this correspondence on behalf of Nebraska Public Power District; and that the statements contained herein are true to the best of his knowledge and belief.

Clay C. Warren

Subscribed in my presence and sworn to before me this 15 day of July, 2003.

NOTARY PUBLIC

GENERAL NOTARY - State of Nebraska
WILMA M. WERNER
My Comm. Exp. Oct. 26, 2006

# **NPPD's Evaluation**

1.0	Introduction
2.0	Description of Proposed Amendment
3.0	Background
4.0	Regulatory Requirements and Guidance
5.0	Technical Analysis
6.0	Regulatory Analysis
7.0	No Significant Hazards Consideration (NSHC)
8.0	Environmental Consideration
9.0	Precedents
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# LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS FOR LOCKED, SEALED, OR SECURED SECONDARY CONTAINMENT ISOLATION VALVES (SR 3.6.4.2.1)

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

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#### 1.0 Introduction

This letter is a request to amend Operating License DPR-46 for Cooper Nuclear Station (CNS).

The proposed change would revise the surveillance requirements of Surveillance (SR) 3.6.4.2.1 for Secondary Containment Isolation Valves and Blind Flanges (SCIVs) by adding a provision to exempt SCIVs that are locked, sealed, or otherwise secured from the 31 day position verification surveillance requirement.

# 2.0 Description of Proposed Amendment

This proposed change will revise SR 3.6.4.2.1 to exempt locked, sealed, or otherwise secured SCIVs from the requirement to verify them closed on a 31 day basis. The proposed change is consistent with the Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-45, Revision 2, "Exempt Verification of [Containment Isolation Valves] CIVs that are not Locked, Sealed, or Otherwise Secured," (Reference 2).

The Technical Specification Bases for SR 3.6.4.2.1 will be revised to include a statement that the SR does not apply to valves and blind flanges that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

# 3.0 Background

The CNS Updated Safety Analysis Report Section V-3.1 indicates that Secondary Containment is designed to limit the ground level release to the environs of airborne radioactive materials resulting from a design basis fuel handling or loss of coolant accident (LOCA) so that off-site doses will be below the values stated in 10 CFR 100, and Control Room occupant doses are within the limits of General Design Criteria (GDC) 19.

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SCIVs form a part of the secondary containment boundary. The function of the SCIVs, in combination with other accident mitigation systems, is to limit fission product release during and following the postulated Design Basis Accidents (DBAs). The SCIVs help ensure that an adequate secondary containment boundary is maintained during and after an accident by minimizing potential paths to the environment. This proposed change will reduce the operator burden and potentially reduce the occupational dose received by CNS Operations personnel while conducting this surveillance.

## 4.0 Regulatory Requirements and Guidance

Secondary Containment is designed to limit the ground level release to the environs of airborne radioactive materials resulting from a design basis fuel handling or LOCA so that off-site doses will be below the values stated in 10 CFR 100, and Control Room occupant doses are within the limits of GDC 19. The SCIVs consist of either passive devices or active (automatic) devices. Manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), and blind flanges are considered passive devices. These passive devices are considered operable when manual valves are closed or open in accordance with appropriate administrative controls, automatic SCIVs are de-activated and secured in their closed position, and blind flanges are in place as verified by SR 3.6.4.2.1.

The proposed change credits the fact that the SCIVs that are locked, sealed or secured were verified to be in the proper position at the time of locking, sealing or otherwise securing. This change is consistent with the NRC approved Industry/TSTF Standard Technical Specification Change Traveler, TSTF-45, Revision 2, "Exempt Verification of CIVs that are not Locked, Sealed, or Otherwise Secured."

### 5.0 Technical Analysis

The Design Basis of the SCIVs is not affected by the proposed change to the surveillance requirements. The locked, sealed, or otherwise secured SCIVs are verified to be closed at the time they are locked, sealed, or secured and are administratively controlled to remain in the required position. Thus, exempting them from the requirement to be verified in the correct position during the 31 day surveillance will not significantly reduce the assurance that the blind flanges and valves are in the closed/correct position and will not affect the ability of these components to perform their design function.

# 6.0 Regulatory Analysis

Locked, sealed or otherwise secured valves and blind flanges will be exempted from the requirement that SCIVs be demonstrated operable by verification of their position under SR 3.6.4.2.1 every 31 days. The SCIVs form a part of the Secondary Containment boundary which is designed to limit the ground level release to the environs of airborne radioactive materials resulting from a design basis fuel handling or LOCA. The SCIVs are required to be operable to maintain the off-site doses below the values stated in 10 CFR 100, and Control Room occupant doses within the limits of GDC 19. The locked, sealed, or otherwise secured valves will remain operable since they were verified to be in the proper position when locking, sealing or securing them. Administrative controls govern position verification for locked, sealed or otherwise secured valves and blind flanges such that there is a very low probability that unacceptable alignment can occur.

# 7.0 No Significant Hazards Consideration

10 CFR 50.91(a)(1) requires that licensee requests for operating license amendments be accompanied by an evaluation of significant hazard posed by issuance of an amendment. Nebraska Public Power District (NPPD) has evaluated this proposed amendment with respect to the criteria given in 10 CFR 50.92 (c).

The proposed change to the Cooper Nuclear Station (CNS) Technical Specifications (TS) would add a provision to exempt locked, sealed, or otherwise secured Secondary Containment Isolation Valves and Blind Flanges (SCIVs) from the 31 day position verification surveillance requirement. This change is consistent with the Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-45, Revision 2, "Exempt Verification of [Containment Isolation Valves] CIVs that are not Locked, Sealed, or Otherwise Secured."

# 1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change does not affect the SCIV design or function. In addition, mis-positioned or failed SCIVs are not the initiator of any event. The position of a locked, sealed or secured valve and blind flange is verified at the time it is locked, sealed or secured. Further, since the change impacts only the frequency of verification of the blind flange and valve position, it does not result in any change in the response of the equipment to an accident.

Based on the above, NPPD concludes that changing the frequency for verifying the position of a locked, sealed or secured SCIV does not affect the probability or consequences of an accident previously evaluated.

# 2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

This change does not add any new equipment or result in any changes to equipment design or capabilities. This change also does not result in any changes to the operation of the plant. The position of a locked, sealed or secured blind flange and valve is verified at the time it is locked, sealed or secured. Further, since the change impacts only the frequency of verification of the blind flange and valve position, it does not result in any change in the response of the equipment to an accident.

Based on the above, NPPD concludes that changing the frequency for verifying the position of a locked, sealed or secured SCIV does not create the possibility of a new or different kind of accident from any previously evaluated.

# 3. Do the proposed changes involve a significant reduction in the margin of safety?

The SCIVs are administratively controlled and their operation is a non-routine event. The position of a locked, sealed or secured blind flange and valve is verified at the time it is locked, sealed or secured. Additionally, industry experience has shown the valves are generally found to be in the correct position. Since the change impacts only the frequency of verification of the blind flange and valve position, the proposed change will provide a similar level of assurance of correct SCIV position as the current frequency of verification.

Based on the above NPPD concludes that changing the frequency for verifying the position of a locked, sealed or secured SCIV does not involve a significant reduction in a margin of safety.

From the above discussions, NPPD concludes that the proposed amendment involves 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.

#### 8.0 Precedents

Similar amendments have been granted by the NRC for Sequoyah Nuclear Plant (SQN) Unit 1, Docket No. 50-327, License No. DPR-77, Amendment No. 271, and SQN Unit 2, Docket No. 50-328, License No. DPR-79, Amendment No. 260, dated October 24, 2001.

Provisions to exempt Primary Containment Isolation Valves that are locked, sealed or otherwise secured from the requirement to verify correct valve position in accordance with Surveillance Requirement (SR) 3.6.1.3.2 and SR 3.6.1.3.3 were incorporated into CNS Technical Specifications during the conversion to Improved Technical

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Specifications, License Amendment 178, issued July 31, 1998 (Reference 4). These provisions were based on TSTF-45, Revision 1 (Reference 1). TSTF-45, Revision 2, which incorporated a similar exemption for Secondary Containment Isolation Valves that are locked, sealed or otherwise secured was subsequently approved by the NRC on June 15, 1999 and included in Revision 2 to NUREG 1433, published June 2001. The proposed change to the CNS TS will make them consistent with the appropriate section of NUREG 1433, Revision 2 (Reference 6).

#### 9.0 Environmental Consideration

10 CFR 51.22(b) allows that an environmental assessment (EA) or an environmental impact statement (EIS) is not required for any action included in the list of categorical exclusions in 10 CFR 51.22(c). 10 CFR 51.22(c)(9) identifies an amendment to an operating license which changes a requirement with respect to installation or use of a facility component located within the restricted area, or which changes an inspection or a surveillance requirement, as a categorical exclusion if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amount of any effluents that may be released off-site, or (3) result in an increase in individual or cumulative occupational radiation exposure.

NPPD has reviewed the proposed license amendment and concludes that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the proposed license changes. The basis for this determination is as follows:

- 1. The proposed license amendment does not involve significant hazards as described previously in the No Significant Hazards Consideration Evaluation.
- 2. This proposed change does not result in a significant change in the types or significant increase in the amounts of any effluents that may be released off-site. The proposed license amendment does not introduce any new equipment, nor does it require any existing equipment or systems to perform a different type of function than they are presently designed to perform. NPPD has concluded that there will not be a significant increase in the types or amounts of any effluents that may be released off-site and these changes do not involve irreversible environmental consequences beyond those already associated with normal operation.
- 3. This change does not adversely affect plant systems or operation and therefore, does not significantly increase individual or cumulative occupational radiation exposure beyond that already associated with normal operation.

#### 10.0 References

- 1. TSTF-45, Rev. 1, "Exempt Verification of CIVs that are not locked, sealed, or otherwise secured."
- 2. TSTF-45, Rev. 2, "Exempt Verification of CIVs that are not locked, sealed, or otherwise secured."
- Letter to U.S. Nuclear Regulatory Commission from J. H. Swailes (Nebraska Public Power District) dated May 6, 1998, "Proposed Change to CNS Technical Specifications, Revision A, Conversion to Improved Standard Technical Specifications."
   Cooper Nuclear Station, NRC Docket 50-298, License No. DPR-46
- 4. Amendment 178, July 31, 1998, Conversion to Improved Technical Specifications for the Cooper Nuclear Station
- 5. USAR V-3.1, Secondary Containment
- 6. NUREG-1433, Standard Technical Specifications General Electric Plants, BWR/4, Revision 2, June 2001

#### **ATTACHMENT 2**

# PROPOSED TECHNICAL SPECIFICATIONS AND ASSOCIATED BASES REVISIONS MARKUP FORMAT

# COOPER NUCLEAR STATION NRC DOCKET 50-298, LICENSE DPR-46

Listing of Revised Pages

TS Pages 3.6-37

TS Bases Pages B 3.6-77

Note: Bases are provided for information. Following approval of the proposed TS change, Bases changes will be implemented in accordance with TS 5.5.10, Technical Specification (TS) Bases Control Program.

# SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.6.4.2.1	<ol> <li>Valves and blind flanges in high radiation areas may be verified by use of administrative means.</li> <li>Not required to be met for SCIVs that are open under administrative controls.</li> </ol>	
	Verify each secondary containment isolation manual valve and blind flange that is required to be closed during accident conditions is closed.	31 days
SR 3.6.4.2.2	Verify the isolation time of each power operated automatic SCIV is within limits.	In accordance with the Inservice Testing Program
SR 3.6.4.2.3	Verify each automatic SCIV actuates to the isolation position on an actual or simulated actuation signal.	18 months

not locked, sealed or otherwise secured and is

### **BASES** (continued)

## SURVEILLANCE REQUIREMENTS

SR 3.6.4.2.1

not locked, sealed or otherwise secured and is

This SR verifies that each secondary containment manual isolation valve and blind flange that is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the secondary containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those SCIVs in secondary containment that are capable of being mispositioned are in the correct position.

Since these SCIVs are readily accessible to personnel during normal operation and verification of their position is relatively easy, the 31 day Frequency was chosen to provide added assurance that the SCIVs are in the correct positions.

Two Notes have been added to this SR. The first Note applies to valves and blind flanges located in high radiation areas and allows them to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these isolation devices, once they have been verified to be in the proper position, is low.

A second Note has been included to clarify that SCIVs that are open under administrative controls are not required to meet the SR during the time the SCIVs are open. These controls consist of stationing a dedicated operator at the controls of the valve, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for secondary containment isolation is indicated.

#### SR 3.6.4.2.2

Verifying that the isolation time of each power operated automatic SCIV is within limits is required to demonstrate OPERABILITY. The isolation time test ensures that the SCIV will isolate in a time period less than or equal to that a ssumed in the safety analyses. The isolation time and Frequency of this SR are in accordance with the Inservice Testing

This SR does not apply to valves and blind flanges that are locked, sealed or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing (continued)

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#### **ATTACHMENT 3**

# PROPOSED TECHNICAL SPECIFICATIONS AND ASSOCIATED BASES REVISIONS FINAL TYPED FORMAT

# COOPER NUCLEAR STATION NRC DOCKET 50-298, LICENSE DPR-46

Listing of Revised Pages

TS Pages 3.6-37

TS Bases Pages B 3.6-77

Note: Bases are provided for information. Following approval of the proposed TS change, Bases changes will be implemented in accordance with TS 5.5.10, Technical Specification (TS) Bases Control Program.

# SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.6.4.2.1	Valves and blind flanges in high radiation areas may be verified by use of administrative means.	
	Not required to be met for SCIVs that are open under administrative controls	
	Verify each secondary containment isolation manual valve and blind flange that is not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed.	31 days
SR 3.6.4.2.2	Verify the isolation time of each power operated automatic SCIV is within limits.	In accordance with the Inservice Testing Program
SR 3.6.4.2.3	Verify each automatic SCIV actuates to the isolation position on an actual or simulated actuation signal.	18 months

#### BASES (continued)

#### SURVEILLANCE REQUIREMENTS

#### SR 3.6.4.2.1

This SR verifies that each secondary containment manual isolation valve and blind flange that is not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the secondary containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those SCIVs in secondary containment that are capable of being mispositioned are in the correct position.

Since these SCIVs are readily accessible to personnel during normal operation and verification of their position is relatively easy, the 31day Frequency was chosen to provide added assurance that the SCIVs are in the correct positions. This SR does not apply to valves and blind flanges that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

Two Notes have been added to this SR. The first Note applies to valves and blind flanges located in high radiation areas and allows them to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these isolation devices, once they have been verified to be in the proper position, is low.

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#### SR 3.6.4.2.2

Verifying that the isolation time of each power operated automatic SCIV is within limits is required to demonstrate OPERABILITY. The isolation time test ensures that the SCIV will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program.

(continued)

# ATTACHMENT 3 LIST OF NRC COMMITMENTS

Correspondence No: NLS2003022

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 NL&S Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
None	
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