



**Nebraska Public Power District**

"Always there when you need us"

NLS2014035  
July 14, 2014

50.90

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

**Subject:** License Amendment Request to Eliminate Requirements for Post Accident Sampling System for Boiling Water Reactors Using the Consolidated Line Item Improvement Process  
Cooper Nuclear Station, Docket 50-298, DPR-46

Dear Sir or Madam:

The purpose of this letter is for the Nebraska Public Power District (NPPD) to submit a request for amendment to the Technical Specifications (TS) for Cooper Nuclear Station (CNS) in accordance with the provisions of 10 CFR 50.90.

The proposed amendment would delete TS 5.5.3, "Post Accident Sampling," thereby eliminating the program requirements to have and maintain the post accident sampling system at CNS. The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-413, "Elimination of Requirements for a Post Accident Sampling System (PASS)." The availability of this technical specification improvement was announced in the Federal Register on March 20, 2002, as part of the consolidated line item improvement process (CLIIP). CNS will continue to have the ability to obtain samples, utilizing PASS, following an accident.

The submittal was prepared in accordance with the CLIIP example application. Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the existing TS pages marked-up to show the proposed change. Attachment 3 provides revised clean TS pages. Attachment 4 provides the existing TS Bases pages marked-up to show the proposed change (for information only). Attachment 5 provides a summary of the regulatory commitments made in this submittal.

NPPD requests approval of the proposed License Amendment by July 14, 2015, with the amendment being implemented within 60 days following approval.

This proposed TS change has been reviewed by the necessary safety review committees (Station Operations Review Committee and Safety Review and Audit Board).

**COOPER NUCLEAR STATION**  
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A001  
NRR

Amendments to the CNS Facility Operating License through Amendment No. 248, dated April 29, 2014, have been incorporated into this request.

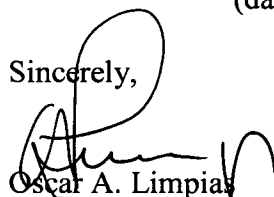
In accordance with 10 CFR 50.91(b)(1), a copy of this application, with attachments, is being provided to the designated State of Nebraska official. Copies to the NRC Region IV office and the CNS Resident Inspector are also being provided in accordance with 10 CFR 50.4(b)(1).

Should you have any questions regarding this submittal, please contact David Van Der Kamp, Licensing Manager, at (402) 825-2904.

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

Executed on 07/14/14  
(date)

Sincerely,



Oscar A. Limpia  
Vice President-Nuclear and  
Chief Nuclear Officer

/bk

- Attachments:
1. License Amendment Request to Eliminate Requirements for Post Accident Sampling Systems for Boiling Water Reactors Using the Consolidated Line Item Improvement Process
  2. Proposed Technical Specification Changes (Mark-Up)
  3. Proposed Technical Specification Pages (Final Typed)
  4. Proposed Technical Specification Bases Revisions (Information Only)
  5. List of Regulatory Commitments

cc: Regional Administrator w/ attachments  
USNRC – Region IV

Cooper 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

**Attachment 1**

**License Amendment Request to Eliminate Requirements for  
Post Accident Sampling Systems for Boiling Water Reactors  
Using the Consolidated Line Item Improvement Process**

**Cooper Nuclear Station, Docket No. 50-298, DPR-46**

Revised Page

5.0-7

- 1.0 Description
- 2.0 Assessment
  - 2.1 Applicability of Published Safety Evaluation
  - 2.2 Optional Changes and Variations
- 3.0 Regulatory Analysis
  - 3.1 Applicable Regulatory Requirements/Criteria
  - 3.2 No Significant Hazards Consideration
  - 3.3 Verification and Commitments
- 4.0 Environmental Evaluation

## **1.0 DESCRIPTION**

The proposed license amendment deletes the program requirements of Technical Specification (TS) 5.5.3, "Post Accident Sampling." Revision of TS 5.5.2, Systems Integrity Monitoring Program, is not needed since it contains no discussion of Post-Accident Sampling System (PASS).

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-413. The availability of this TS improvement was announced in the Federal Register on March 20, 2002, as part of the consolidated line item improvement process (CLIP).

## **2.0 ASSESSMENT**

### **2.1 Applicability of Published Safety Evaluation**

Nebraska Public Power District (NPPD) has reviewed the safety evaluation published on December 27, 2001 (66 FR 66949), as part of the CLIP. This verification included a review of the NRC staff's evaluation (as modified slightly by the notice of availability) as well as the supporting information provided to support TSTF-413 (i.e., NEDO-32991, "Regulatory Relaxation for BWR Post Accident Sampling Stations (PASS)," submitted November 30, 2000, and the associated NRC Safety Evaluation (SE) dated June 12, 2001).

NPPD has concluded that the justifications presented in the TSTF proposal and the SE, prepared by the NRC staff, are applicable to Cooper Nuclear Station (CNS) and justify this amendment for the incorporation of the changes to the CNS TS.

### **2.2 Optional Changes and Variations**

NPPD is not proposing any variations or deviations from the TS changes described in TSTF-413 or the NRC staff's model SE published on December 27, 2001.

Note 2 of the December 27, 2001 NRC SE identified three other potential TS changes for which the staff provided discussion. For CNS, applicability is as follows:

#### **(1) Editorial changes**

No editorial changes to CNS TS are required to account for the changes covered in this request. The proposed TS reflect Subsection 5.5.3 as "Deleted." The remaining subsections in Section 5.5 are not renumbered.

(2) Mention of PASS as a potential leakage source outside containment

NPPD plans to leave PASS in place. Therefore, the configuration of PASS will continue to be a potential leakage path outside the Primary Containment for highly radioactive fluids. Any PASS leakage would be included in the cumulative allowed Emergency Core Cooling System leakage.

TS Subsection 5.5.2, Systems Integrity Monitoring Program, provides for a program to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident. PASS is not mentioned in the scope of this program. Therefore, no revision to TS 5.5.2 is needed.

(3) TS Bases changes

The elimination of PASS results in changes to the discussion in the TS Bases section B 3.3.6.1, Primary Containment Isolation Instrumentation. Item number 2.e, Reactor Vessel Water Level – Low Low Low (Level 1), discusses bypassing this function in order to obtain a sample for PASS. The specific mention of “PASS” is replaced with a reference to “core damage assessment capability.” The proposed Bases revisions are provided in Attachment 4. NPPD will formally address the change to the TS Bases in accordance with the TS Bases Control Program of TS Section 5.5.10, and will provide the actual revised TS Bases pages in a future submittal required by 10 CFR 50.71(e).

No change to TS Bases B 3.3.3.1, Post Accident Monitoring (PAM) Instrumentation, is necessary since the current TS Bases do not mention PASS.

**3.0 REGULATORY ANALYSIS**

**3.1 Applicable Regulatory Requirements/Criteria**

Construction of CNS predated the 1971 issuance of 10 CFR 50, Appendix A, “General Design Criteria for Nuclear Power Plants.” Appendix F, “Conformance to AEC Proposed General Design Criteria,” of the CNS Updated Safety Analysis Report discusses that CNS is designed to conform to the proposed general design criteria (GDC) published in the July 11, 1967, Federal Register, except where commitments were made to specific 1971 GDC. It notes that the Atomic Energy Commission (AEC) accepted CNS conformance with these proposed GDC.

This difference does not alter the conclusion that the proposed change is applicable to CNS.

### **3.2 No Significant Hazards Consideration**

Nebraska Public Power District (NPPD) has reviewed the proposed no significant hazards consideration determination published on December 27, 2001 (66 FR 66949), as part of the consolidated line item improvement process. NPPD has concluded that the proposed determination presented in the notice is applicable to Cooper Nuclear Station and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

### **3.3 Verification and Commitments**

As discussed in the model SE published in Federal Register (FR) on December 27, 2001, for this TS improvement, plant-specific verifications were performed as follows:

1. NPPD verified it has contingency plans for obtaining and analyzing highly radioactive samples from the reactor coolant system, suppression pool, and containment atmosphere. NPPD will maintain this capability in CNS Chemistry Department procedures. Implementation of this commitment is complete.
2. NPPD verified it has established the capability for classifying fuel damage events at the Alert level threshold for CNS at radioactivity levels of 300  $\mu\text{Ci/cc}$  dose equivalent iodine. This capability is described in the Emergency Plan Implementing Procedure for performing dose projection. Implementation of this commitment is complete.
3. NPPD verified that it has an I-131 site survey detection capability, including an ability to assess radioactive iodines released to offsite environs, by using effluent monitoring systems or portable sampling equipment. The capability for monitoring iodines will be maintained in the Emergency Plan Implementing Procedures for manually determining airborne release rates and for onsite and offsite boundary monitoring. Implementation of this commitment is complete.

### **4.0 ENVIRONMENTAL EVALUATION**

NPPD has reviewed the environmental evaluation included in the model safety evaluation published on December 27, 2001 (66 FR 66949), as part of the CLIIP. NPPD has concluded that the NRC staff's findings presented in that evaluation are applicable to CNS and the evaluation is hereby incorporated by reference for this application.

**Attachment 2**

**Proposed Technical Specification Changes (Mark-Up)**

**Cooper Nuclear Station, Docket No. 50-298, DPR-46**

Technical Specification Page

5.0-7

## 5.5 Programs and Manuals

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### 5.5.1 Offsite Dose Assessment Manual (ODAM) (continued)

markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

### 5.5.2 Systems Integrity Monitoring Program

This program provides controls to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to levels as low as practicable. The systems include the Core Spray, High Pressure Coolant Injection, Residual Heat Removal, and Reactor Core Isolation Cooling. The program shall include the following:

- a. Preventive maintenance and periodic visual inspection requirements; and
- b. Integrated leak test requirements for each system at 24 month intervals or less.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable at the 24 month Frequency for performing system leak test activities.

### 5.5.3 Post Accident Sampling ← (Deleted)

~~This program provides controls that ensure the capability to obtain and analyze reactor coolant, radioactive gases, and particulates in plant gaseous effluents and containment atmosphere samples under accident conditions. The program shall include the following:~~

- ~~a. Training of personnel;~~
- ~~b. Procedures for sampling and analysis; and~~
- ~~c. Provisions for maintenance of sampling and analysis equipment.~~

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(continued)



**Attachment 3**

**Proposed Technical Specification Pages (Final Typed)**

**Cooper Nuclear Station, Docket No. 50-298, DPR-46**

Technical Specification Page

5.0-7

## 5.5 Programs and Manuals

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### 5.5.1 Offsite Dose Assessment Manual (ODAM) (continued)

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- a. Preventive maintenance and periodic visual inspection requirements; and
- b. Integrated leak test requirements for each system at 24 month intervals or less.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable at the 24 month Frequency for performing system leak test activities.

### 5.5.3 (Deleted)

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(continued)

**Attachment 4**

**Proposed Technical Specification Bases Revisions (Information Only)**

**Cooper Nuclear Station, Docket No. 50-298, DPR-46**

Technical Specification Bases Page

B 3.3-144

**BASES**

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**APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)**

be OPERABLE to ensure that no single instrument failure can preclude the isolation function.

The Reactor Vessel Water Level-Low Low Low (Level 1) Allowable Value is chosen to be the same as the ECCS Level 1 Allowable Value (LCO 3.3.5.1) to ensure that the recirculation sample valves will isolate on a potential LOCA to prevent offsite doses from exceeding 10 CFR 50.67 limits.

This Function isolates the recirculation sample valves. It may be bypassed using a key-locked switch during accident conditions to obtain a sample for ~~Post Accident Sampling System (PASS)~~.

core damage  
assessment capability

High Pressure Coolant Injection and Reactor Core Isolation Cooling Systems Isolation

3.a., 3.b., 4.a., 4.b. HPCI and RCIC Steam Line Flow-High and Time Delay Relays

Steam Line Flow-High Functions are provided to detect a break of the RCIC or HPCI steam lines and initiate closure of the steam line isolation valves of the appropriate system. If the steam is allowed to continue flowing out of the break, the reactor will depressurize and the core can uncover. Therefore, the isolations are initiated on high flow to prevent or minimize core damage. The isolation action, along with the scram function of the RPS, ensures that the fuel peak cladding temperature remains below the limits of 10 CFR 50.46. Specific credit for these Functions is not assumed in any USAR accident analyses since the bounding analysis is performed for large breaks such as recirculation and MSL breaks. However, these instruments prevent the RCIC or HPCI steam line breaks from becoming bounding.

The HPCI and RCIC Steam Line Flow-High signals are initiated from differential pressure switches (two for HPCI and two for RCIC) that are connected to the system steam lines. A time delay is provided to prevent HPCI or RCIC isolation due to high flow transients during HPCI or RCIC startup with one Time Delay Relay channel associated with each Steam Line Flow-High channel. Two channels of both HPCI and RCIC Steam Line Flow-High Functions and the associated Time Delay Relays are available and are required to be OPERABLE to ensure that no single instrument failure can preclude the isolation function.

**Attachment 5**

**List of Regulatory Commitments**

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by Nebraska Public Power District in this document. Any other actions discussed in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT/COMMITMENT NO.	TYPE (Check one)		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
<p><b>NLS2014035-01</b></p> <p>NPPD has contingency plans for obtaining and analyzing highly radioactive samples from the reactor coolant system, suppression pool, and containment atmosphere. NPPD will maintain this capability in CNS Chemistry Department procedures.</p>		<b>X</b>	Implementation of this commitment is complete.
<p><b>NLS2014035-02</b></p> <p>NPPD has established the capability for classifying fuel damage events at the Alert level threshold for CNS at radioactivity levels of 300 <math>\mu</math>Ci/cc dose equivalent iodine. This capability is described in the Emergency Plan Implementing Procedure for performing dose projection.</p>		<b>X</b>	Implementation of this commitment is complete.
<p><b>NLS2014035-03</b></p> <p>NPPD has an I-131 site survey detection capability, including an ability to assess radioactive iodines released to offsite environs, by using effluent monitoring systems or portable sampling equipment. The capability for monitoring iodines will be maintained in the Emergency Plan Implementing Procedures for manually determining airborne release rates and for onsite and offsite boundary monitoring.</p>		<b>X</b>	Implementation of this commitment is complete.