



Nebraska Public Power District
Nebraska's Energy Leader

50.90

NLS2001009

May 30, 2001

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

Gentlemen:

Subject: Proposed License Amendment
Ventilation Filter Testing Program Reference
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference: NUREG-1433, Rev 1, Standard Technical Specifications General Electric, BWR/4

In accordance with the provisions of 10 CFR 50.4 and 50.90 the Nebraska Public Power District (District) hereby submits a request for an amendment to License DPR-46 to change the Cooper Nuclear Station (CNS) Technical Specifications (TS). The proposed TS change will update the Ventilation Filter Testing Program TS (5.5.7.a, b, and e) to reference ASME N510-1989 and thus more closely follows the Improved Standard Technical Specifications (Reference).

Attachment 1 contains the description of the TS change, basis for the change, attendant 10 CFR 50.92 no significant hazard consideration determination, and 10 CFR 51.22 environmental impact evaluation. Attachment 2 identifies the specific changes to the current CNS TS on marked up pages. Attachment 3 contains the final, clean versions of the affected TS pages. This proposed amendment does not impact the TS Bases. This proposed TS change has been reviewed by the necessary safety review committees (Station Operations Review Committee and Safety Review and Audit Board) and incorporates all amendments to the CNS Facility Operating License through Amendment 185 issued March 13, 2001.

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 Region IV Office and the CNS Resident Inspector are also being provided in accordance with 10 CFR 50.4(b)(1).

General Office

1414 15th Street / P.O. Box 499 / Columbus, NE 68602-0499

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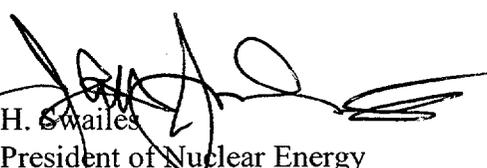
Pool

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Should you have any questions concerning this matter, please contact Mr. Michael Boyce at (402) 825-5100.

Sincerely,



John H. Swailes
Vice President of Nuclear Energy

/clb

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

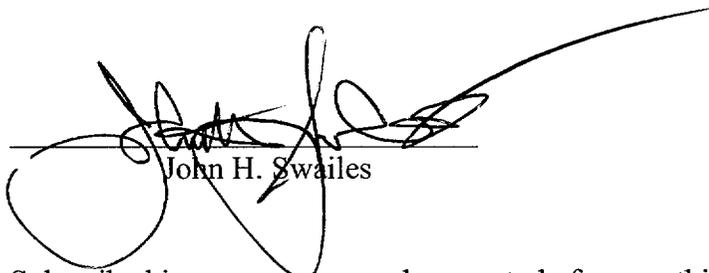
Nebraska Health and Human Services w/ attachments
Department of Regulation and Licensure

NPG Distribution w/o attachments

Records w/ attachments

STATE OF NEBRASKA)
)
NEMAHA COUNTY)

John H. Swailes, 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.



John H. Swailes

Subscribed in my presence and sworn to before me this 30th day of May, 2001.



NOTARY PUBLIC



Ventilation Filter Testing Program Reference

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

Revised TS Pages

5.0-11

5.0-13

Revised Bases Pages

None

1.0 Introduction

These proposed changes to Cooper Nuclear Station (CNS) Technical Specifications (TS) update the reference in Sections 5.5.7.a, 5.5.7.b and 5.5.7.e from ASME N510-1980 to ASME N510-1989 and in the process corrects an inappropriate reference in Section 5.5.7.e. The present reference in TS section 5.5.7.e to ASME N510-1980, Section 14.5.1, is inappropriate in that no such section exists. The appropriate reference for heater power dissipation testing is ASME N510-1989 Section 14.5.1, "Power-On Electrical Tests." At the same time, references in Section 5.5.7.a and 5.5.7.b will be corrected so that only the subsections of Regulatory Guide (RG) 1.52 Revision 2 that apply to the topic of the TS paragraph will be referenced.

Amendment 178 to the CNS Operating License implemented the Improved Standard Technical Specifications (ISTS) format (Reference 2). Prior to ISTS implementation on August 15, 1998, the CNS TS requirement was to demonstrate once per operating cycle that the Standby Gas Treatment System (SGT) inlet heater input was capable of reducing relative humidity from 100% to 70%. The minimum heat dissipation needed to achieve this humidity reduction had been calculated and was referenced in the TS Bases prior to Amendment 178 to be 7.8 kW. This was the acceptance criteria utilized in the periodic testing. To conform with the format of Reference 2, the heater dissipation value was used in lieu of the relative humidity reduction capability referenced prior to Amendment 178. Also, to conform to the format of Reference 2, reference to ASME N510-1980 was added to clarify testing requirements. The proposed change corrects the reference in TS 5.5.7.e to ASME N510-1989, Section 14.5.1, and updates the reference in TS 5.5.7.a and 5.5.7.b to also read ASME N510-1989 for consistency. The changes in TS 5.5.7.a and 5.5.7.b will not result in any change in the performance of the required testing. These changes are to maintain the testing consistent with the testing being performed prior to and since Amendment 178.

The original changes made in Amendment 178 characterized the conversions as administrative only. The associated surveillance procedure requirements remained

unchanged (no technical changes made) during the implementation of Amendment 178. The Nuclear Regulatory Commission (NRC) Staff supported this categorization as an administrative change in the NRC Safety Evaluation Report for Amendment 178 (Reference 1). In the interim, the Nebraska Public Power District (District) will continue to perform the testing as required by CNS surveillance procedures consistent with the intent of TS 5.5.7.a, 5.5.7.b and 5.5.7.e.

2.0 Background/Discussion

Standby Gas Treatment Engineered Safety Feature (ESF) Ventilation System Functions

When required to operate, the SGT processes effluent from the reactor building (secondary containment) to limit discharge of radioactive material to the environs. With the reactor building isolated, the SGT has the necessary capacity to perform its design function which is to reduce and maintain the reactor building at a minimum average subatmospheric pressure of - 0.25 inches of water (under neutral wind conditions) with an air infiltration rate of no more than 100% of the reactor building volume per day. An electric heating element system is included in the SGT upstream of the SGT charcoal adsorber. The heating system is actuated when the inlet gas flow is greater than 800 cfm and the temperature of the gas past the heating elements is less than 170 degrees F. The heater system will reduce the relative humidity of the charcoal adsorber inlet airstream from 100% to 70% when the SGT is operating. Charcoal filters are installed in the SGT to provide the minimum required iodine removal efficiencies assumed in the CNS design basis accident analysis. The performance of the SGT is such that the radioactivity released to the environs is kept to a practical minimum and well within the guideline values of 10 CFR 20 and 10 CFR 100. Additional details on the SGT are provided in CNS Updated Safety Analysis Report (USAR) Chapters V.3, VII.17 and TS Bases B 3.6.4.3.

Control Room Emergency Filtration ESF Functions

The Control Room Emergency Filter (CREF) system is automatically started by a high radiation signal from any one of the three channels (particulate, iodine, or gaseous radioactivity) of the Control Building Air Intake Monitor. The high radiation signal causes: 1) the Control Room Emergency Supply Fan to start, 2) the Control Room Heating, Ventilation, and Air Conditioning (HVAC) system Inlet Valve to close, 3) the Control Room HVAC Emergency Bypass System Inlet Valve to open, 4) the Pantry/Toilet Exhaust Fan to stop, 5) the Control Room Pantry Exhaust Fan Isolation Valve to close, and 6) annunciation of the high radioactivity and emergency supply fan running conditions in the Control Room. This valve arrangement ensures that all outside air (makeup air) is drawn through the filter unit. The emergency supply fan draws air in from the outside, through the filters, and then discharges to the suction of the air conditioning unit.

3.0 Description Of Changes

The following is proposed to rectify an incorrect reference and update applicable sections of TS 5.5.7 to ASME N510-1989.

For Section 5.5.7.a (page 5.0-11), it is proposed to replace "1980" with "1989," delete the words "and c.5.d," and change "c.5.c" to read "C.5.c."

For Section 5.5.7.b (page 5.0-11), it is proposed to replace "1980" with "1989," delete the words "c.5.c and," and change "c.5.d" to read "C.5.d."

For Section 5.5.7.e (page 5.0-13), it is proposed to replace "1980" with "1989."

4.0 Justification

TS Sections 5.5.7.a and 5.5.7.b reference ASME N510-1980. TS Section 5.5.7.e references ASME N510-1980, Section 14.5.1. This section does not exist in ASME N510-1980 and no sections in the 1980 version for heater performance testing accurately describe the current test method. The test method has not changed since prior to the conversion from Custom Technical Specifications. ASME N510-1989, Section 14.5.1, does accurately reflect the current test method and for consistency in TS, all sections of TS 5.5.7 referencing ASME N510-1980 should be changed to reference ASME N510-1989. ASME N510-1989 Section 1.2 states that this standard shall be applied in its entirety to systems designed and built to ASME N509-1989 and ASME N510-1989 can be used for technical guidance for testing air treatment systems designed according to other criteria. Since CNS was not built to ASME N509-1989, CNS will be using ASME N510-1989 for technical guidance for the testing methodology. The testing methodology will remain the same. As such the application of ASME N510-1989 to the CNS license basis for testing is appropriate.

TS Sections 5.5.7.a and 5.5.7.b include references to RG 1.52, Revision 2, Sections c.5.c and c.5.d. TS 5.5.7.a pertains to high-efficiency particulate air (HEPA) filter testing and as such should only reference RG 1.52, Revision 2, Section C.5.c which discusses HEPA filter testing. TS 5.5.7.b pertains to charcoal adsorber testing and as such should only reference RG 1.52, Revision 2, Section C.5.d which discusses carbon adsorber testing. The first "C" in each RG section reference should be capitalized for consistency with the RG.

5.0 No Significant Hazard Determination

The District has evaluated each of the proposed TS changes in accordance with the criteria set forth in 10 CFR 50.92 and has determined that the proposed changes do not involve a significant hazards consideration.

The determination that the proposed changes do not involve a significant hazards consideration is based on an evaluation of these changes against each of the criteria in 10 CFR 50.92. The criteria and the conclusions of the evaluation are presented below.

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

Response: No

The application of the 1989 version of ASME N510 will not change any of the surveillance requirements for operability of the SGT or the CREF. The changes with respect to RG 1.52 are editorial in nature and will not result in any changes in surveillance requirements. Since SGT and CREF are ESF systems and not accident initiators the probability of an accident evaluated in the Updated Safety Analysis Report will not be increased. As such, the probability of occurrence for a previously analyzed accident is not significantly increased.

The consequences of a previously analyzed event are dependent on the initial conditions assumed for the analysis, the availability and successful functioning of the equipment assumed to operate in response to the analyzed event, and the setpoints at which these actions are initiated. This change does not affect the performance of any credited equipment. These details of testing are not analysis assumptions. Based on this evaluation, there is no significant increase in the consequences of a previously analyzed event.

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

Response: No

The proposed change does not involve a physical alteration of the plant. No new equipment is being introduced, and installed equipment is not being operated in a new or different manner. There is no change being made to the parameters within which the plant is operated. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. The change does not result in alteration of the procedures which ensure the plant remains within analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

Response: No

The margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. Sufficient equipment remains available to actuate upon demand for the purpose of mitigating an analyzed event. The proposed change, which replaces references to ASME N510-1980 with references to ASME N510-1989, is acceptable because the tests continue to require appropriate confirmation of the assumed function of the systems (and thereby assure continued operability), and more accurately presents acceptable testing conditions. The changes with respect to RG 1.52 are editorial in nature and do not change existing surveillances. There is no detrimental impact on any equipment design parameter, and the plant will still be required to operate within prescribed limits. Therefore, the change does not involve a significant reduction in the margin of safety.

6.0 Environmental Impact Evaluation

10 CFR 51.22(c)(9) provides criteria for, and identification of, licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment 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. The District 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 change. 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 Determination.
2. As discussed in the No Significant Hazards Consideration Determination, the proposed change to the CNS TS for SGT and CREF testing 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 during normal operation. The District has concluded that there will not be a significant increase in the types or amounts of effluents that may be released off-site and these changes do not involve irreversible environmental consequences beyond those already associated with normal operation.

3. The proposed change involves a revision to the Technical Specification requirements for SGT and CREF testing. As discussed in the No Significant Hazards Consideration Determination, this change does not affect plant systems or operation. The proposed change updates references to an ASME standard section and corrects RG 1.52 references. Thus, the proposed change does not increase individual or cumulative occupational radiation exposure beyond that already associated with normal operation.

7.0 Conclusion

The District has evaluated the proposed change described above against the criteria of 10 CFR 50.92 in accordance with the requirements of 10 CFR 50.9(a)(1). This evaluation has determined that the proposed change to the Technical Specifications will not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility for a new or different kind of accident from any accident previously evaluated, or (3) create a significant reduction in the margin of safety. Therefore, the District requests NRC approval of this proposed change.

8.0 References

- 1) Letter from Jack N. Donohew (U.S. Nuclear Regulatory Commission) to G. R. Horn (Nebraska Public Power District) dated July 31, 1998, Conversion to Improved Technical Specifications for the Cooper Nuclear Station - Amendment No. 178 to the Facility Operating License No. DPR-46 (TAC No. M98317)
- 2) NUREG-1433, Rev 1, Standard Technical Specifications General Electric, BWR/4

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Attachment 2
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**Mark-Up to show Specific Changes to
Existing Technical Specifications**

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

Revised TS Pages

5.0-11

5.0-13

Revised Bases Pages

NONE

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

system operation; and, following significant painting, fire, or chemical release concurrent with system operation in any ventilation zone communicating with the system.

Tests described in Specifications 5.5.7.a and 5.5.7.b shall be performed after each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; and after any structural maintenance on the system housing.

Tests described in Specifications 5.5.7.d and 5.5.7.e shall be performed once per 18 months.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

- a. Demonstrate for each of the ESF systems that an inplace test of the HEPA filters shows a penetration and system bypass < 1% when tested in accordance with Regulatory Guide 1.52, Revision 2, Sections ~~c.5.c and c.5.d~~ and ASME N510-~~1980~~ at the system conditions specified below.

<u>ESF Ventilation System</u>	<u>Flowrate (cfm)</u>
SGT System	1602 to 1958
Control Room Emergency Filter System	810 to 990

- b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass < 1% when tested in accordance with Regulatory Guide 1.52, Revision 2, Sections ~~c.5.c and c.5.d~~ and ASME N510-~~1980~~ at the system conditions specified below.

<u>ESF Ventilation System</u>	<u>Flowrate (cfm)</u>
SGT System	1602 to 1958
Control Room Emergency Filter System	810 to 990

(continued)

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

- e. Demonstrate that the heaters for the SGT System dissipate 7.8 kW when tested in accordance with ASME N510-~~1980~~, Section 14.5.1. 1989

5.5.8 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Augmented Offgas Treatment System, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

- a. The limits for concentrations of hydrogen in the Augmented Offgas Treatment System and a surveillance program to ensure the limits are maintained. Such limits shall be appropriate to the system's design criteria (i.e., whether or not the system is designed to withstand a hydrogen explosion); and
- b. A surveillance program to ensure the quantity of radioactivity contained in each outside temporary liquid radwaste tank that is not surrounded by a liner, dike, or wall capable of holding the tank's contents and that does not have a tank overflow and surrounding area drain connected to the Liquid Radwaste System is ≤ 10 curies, excluding H-3 and dissolved noble gases.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program Surveillance Frequencies.

(continued)

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Attachment 3
Page 1 of 3

**Clean Copy of Proposed Changes to
Technical Specifications**

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

Revised TS Pages

5.0-11

5.0-13

Revised Bases Pages

NONE

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

system operation; and, following significant painting, fire, or chemical release concurrent with system operation in any ventilation zone communicating with the system.

Tests described in Specifications 5.5.7.a and 5.5.7.b shall be performed after each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; and after any structural maintenance on the system housing.

Tests described in Specifications 5.5.7.d and 5.5.7.e shall be performed once per 18 months.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

- a. Demonstrate for each of the ESF systems that an inplace test of the HEPA filters shows a penetration and system bypass < 1% when tested in accordance with Regulatory Guide 1.52, Revision 2, Section C.5.c, and ASME N510-1989 at the system conditions specified below.

<u>ESF Ventilation System</u>	<u>Flowrate (cfm)</u>
SGT System	1602 to 1958
Control Room Emergency Filter System	810 to 990

- b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass < 1% when tested in accordance with Regulatory Guide 1.52, Revision 2, Section C.5.d, and ASME N510-1989 at the system conditions specified below.

<u>ESF Ventilation System</u>	<u>Flowrate (cfm)</u>
SGT System	1602 to 1958
Control Room Emergency Filter System	810 to 990

(continued)

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

- e. Demonstrate that the heaters for the SGT System dissipate 7.8 kW when tested in accordance with ASME N510-1989, Section 14.5.1.

5.5.8 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Augmented Offgas Treatment System, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

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- b. A surveillance program to ensure the quantity of radioactivity contained in each outside temporary liquid radwaste tank that is not surrounded by a liner, dike, or wall capable of holding the tank's contents and that does not have a tank overflow and surrounding area drain connected to the Liquid Radwaste System is ≤ 10 curies, excluding H-3 and dissolved noble gases.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program Surveillance Frequencies.

