



## Nebraska Public Power District

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NLS950074  
April 28, 1995

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

Subject: Revision to Control Room Emergency Filter System 31-Day Test  
Commitment and the Operability Limit Commitment  
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Reference: Letter (No. NLS940023) to U.S. Nuclear Regulatory Commission Document  
Control Desk from Nebraska Public Power District dated July 28, 1994,  
"Update to Control Room Emergency Filter System Commitments"

Gentlemen:

On July 28, 1994, the Nebraska Public Power District (District) committed to testing the Control Room Emergency Filter System (CREFS) at an increased frequency of once per month (31 days) to demonstrate integrity of the Control Room envelope at Cooper Nuclear Station (CNS). The District also committed to an operability limit of 0.04" Wg subsequent to the Nuclear Regulatory Commission's (NRC's) approval of a Technical Specification change allowing modifications to achieve increased flow of the CREFS. The purpose of this letter is to revise the District's commitment to perform the CREFS pressurization test from a frequency of once per month to once per quarter (92 days). Correspondingly, the District's committed operability limit will be revised from the current limit of 0.04" Wg to a new limit of 1/8" Wg. The District is also revising its commitment to perform the test at a wind speed of  $\leq 8$  miles per hour (mph) as opposed to  $\leq 4$  mph. The District will maintain a monthly and accelerated test schedule pending receipt of NRC concurrence to extend to a quarterly test frequency. The bases for the above commitment revisions are contained herein.

Amendment 167 to the CNS Technical Specifications was approved by the Nuclear Regulatory Commission (NRC) on January 27, 1995. This amendment allowed the District to make modifications and/or adjustments to the CREFS to increase the ventilation flow and pressurization margin. The District has recently completed the following modifications:

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- Increased CREFS flow rate from 341 cfm $\pm$ 10% to 900 cfm  $\pm$ 10% during January 1995. This included the replacement of the system fan and addition of a third charcoal adsorber tray.
- Connected the Cable Spreading Room envelope to the Control Room envelope by installing a floor penetration and a fire damper to address HVAC system balance sensitivities.
- Completed additional sealing of cable tray/conduit penetrations and replacement of doors and door seals.
- Completed tracer gas testing to quantify Control Room envelope inleakage during operation in the emergency mode. This activity was performed prior to the approval of Amendment 167.

Subsequent surveillance test data has shown that the CNS Control Room positive pressurization capability has been increased substantially from a level of approximately 0.05" Wg to approximately 0.30" Wg relative to atmosphere and adjacent buildings.

The 31-day and the accelerated test frequency were both based on the fact that little margin existed between the actual capability of the CREFS and the minimum pressure necessary to ensure that the Control Room envelope was positive with respect to adjacent buildings. Prior to the modifications, the minimum pressure (i.e., an operability limit of 0.03" Wg) was only 0.02" Wg below the CREFS pressurization capability of 0.05" Wg. With such a small margin, minor degradation in the Control Room envelope or the CREFS would have challenged the operability of the system.

However, the implementation of system modifications has increased the CREFS pressurization capability to approximately 0.30" Wg, which now provides a margin of approximately 0.26" Wg over the post modification operability level of 0.04" Wg. The test results from three pressurization tests performed over the last two months have shown that the 0.30" Wg is a consistent performance level for the system and that rapid degradation of the system or the Control Room envelope is not occurring. Therefore, the performance of the Control Room pressurization test on a quarterly basis and with a 1/8" Wg operability limit will ensure that the CREFS and the Control Room envelope will meet its design basis function.

The revised 1/8" Wg operability limit has been chosen to provide sufficient margin to ensure positive pressurization of the Control Room envelope, relative to atmosphere and adjacent buildings. The numerical value of 1/8" Wg was selected to be consistent with the operability limit recommended in the Standard Review Plan (NUREG 0800) for systems similar to the CNS CREFS. While the District is not committed to the Standard Review Plan, we have determined that the operability limit of 1/8" Wg is acceptable for the CREFS.

The District desires to collect additional test data to ensure that long term degradation of the Control Room envelope is not occurring, in order to support final resolution of the Control Room envelope issues. The additional test data and other operating experience will be used to support the final pressurization value to be contained in the concluding Technical Specification change.

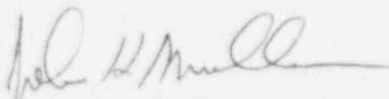
The  $\leq 4$  mph restriction, contained in the July 28, 1994, submittal, was based on the District's investigation into wind wake effects on the Control Room pressurization tests. At the time of the July 28, 1994, submittal, the District had determined that wind wake effects would be insignificant for wind speeds less than 4 mph and that testing under these conditions would prevent masking of potentially degraded conditions. When wind speeds approach 8 mph, wind wake effects could result in instrument inaccuracies of up to 0.03" Wg. This was considered significant when the achievable pressurization levels were 0.05" Wg and the administrative/operability limits were 0.04" Wg and 0.03" Wg, respectively. Following the modifications, pressurization levels of 0.30" Wg are now achievable. Therefore, a measurement inaccuracy of 0.03" Wg is no longer a significant factor in determining if the operability limit is met and that significant degradation is not occurring.

Furthermore, Control Room envelope testing at wind speeds up to 8 mph is documented to bound worst case meteorological conditions (Stability Class A) which would occur at wind speeds of  $\leq 6.7$  mph. This issue is discussed in the July 28, 1994, submittal and is further addressed in ERIN Report No. 122-93-01-01, Rev. 1, "Technical Basis for Modified Control Room Pressurization Test Acceptance Criteria for Cooper Nuclear Station."

The changes to a quarterly test frequency and testing at wind speeds up to 8 mph are justified. A corresponding change of the operability limit from 0.04" Wg to 1/8" Wg provides additional margin to ensure that positive pressurization of the Control Room envelope is maintained between the quarterly test intervals and to compensate for the increased pressure measurement inaccuracy that may be present during the CREFS tests (resulting from wind conditions  $\leq 8$  mph). In order to accommodate varying wind conditions, the District will retain the provision for extending the surveillance interval a maximum of 25%. The once per month test frequency will be eliminated based on the fact that administrative limits no longer exist. The District requests that the NRC documents its concurrence regarding these commitment changes.

If you have any questions or need additional information, please contact this office.

Sincerely,



John H. Mueller  
Site Manager

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April 28 1995  
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cc: Regional Administrator  
USNRC Region IV  
Arlington, TX

NRC Resident Inspector  
Cooper Nuclear Station

NPG Distribution

Correspondence No: NLS950074

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC for the NRC's information 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	COMMITTED DATE OR OUTAGE
Contingent upon NRC written concurrence, perform the Control Room envelope test once per quarter as opposed to once per month (31 days). This is a revision to the 31-day test frequency commitment made in the letter (NLS940023) to the NRC from the District dated July 28, 1994. The acceptance criteria for the once per quarter (92 days) test frequency is as follows: operability limit of $\geq 1/8"$ Wg; administrative limit no longer exists.	Once per Quarter
Contingent upon NRC written concurrence, the Control Room envelope test shall be at a wind speed of $\leq 8$ miles per hour (mph) as opposed to $\leq 4$ mph (commitment made in NLS940023).	Once per Quarter
Additional test data and other operating experience collected from Control Room envelope testing will be used to support the final pressurization value to be contained in the concluding Technical Specification change.	Prior to Refueling Outage No. 16
The District will maintain a monthly and accelerated test schedule (reference: NLS940023) pending receipt of NRC concurrence to extend to a quarterly frequency.	Once per Month/Once per Two Weeks