Nebraska Public Power District

COOPER NUCLEAR STATION
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NSD940399
April 18, 1994

L. J. Callan
NRC Regional Administrator
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 67022

Subject: Request for Notice of Enforcement Discretion
Technical Specification 3.12.A.3
Cooper Nuclear Station
Docket No. 50-298, DPR-46

Dear Mr. Callan:

In accordance with the applicable provisions specified in Section VII.C of the NRC Enforcement Policy, the Nebraska Public Power District (District) requests a Notice of Enforcement Discretion (NOED) be granted for the Cooper Nuclear Station (CNS) Technical Specifications (T/S). Specifically, the District requests enforcement discretion from CNS T/S Limiting Condition for Operation (LCO) 3.12.A.3 "Control Room Emergency Filter System", which allows for continued reactor operation for seven (7) days if the Control Room Emergency Filter System is made or found inoperable. The District is requesting an additional fourteen (14) days be allowed for the LCO associated with T/S 3.12.A.3, with compensatory measures in place, to allow sufficient time for the District to implement a permanent resolution.

A discussion of the pertinent events leading up to the issuance of this submittal is as follows: On Monday, April 11, 1994, at 1347 CDT, the Control Room Emergency Filter System was declared inoperable when a planned breach of the Control Room pressurization boundary was made to perform Preventative Maintenance on the latch for Door H300, which is a part of the Control Room Pressurization boundary. Following the maintenance activity, CNS Surveillance Procedure 6.3.17.18, "Control Room Envelope Pressurization Test," was performed to demonstrate operability of the ventilation system, but failed to meet its acceptance criteria. The surveillance test was re-performed, on April 12, 1994, but still did not meet the acceptance criteria. Since that time, various activities have been ongoing in parallel. A design change has been implemented to install a loop seal in an equipment drain in the Cable Spreading Room which penetrates the Control Room Pressurization Boundary. Plant personnel have been performing local smoke tests to identify and seal all identifiable leaks in the Control Room Envelope. The District's Nuclear Engineering Staff is evaluating outside wind speed and direction and HVAC operation of adjoining areas to determine their effects on the test results.

These efforts, while still ongoing, have improved the results of the surveillance test, but have not resulted in acceptable test results to date. The seven day LCO allowed by Technical Specification 3.12.A.3 ends at

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ADD: Steve Dembek 014E21

1:47 p.m., April 18, 1994. The conditions involved in this request are considered to be temporary and nonrecurring; therefore, the District requests enforcement discretion, which as discussed in the attachment, will not, with the implementation of the compensatory measures, result in creating a significant safety hazard, nor result in adverse consequences to the environment, to allow sufficient time for the District to implement permanent solutions.

Additional detail and discussion pertaining to this request are given in the attachment to assist in evaluating this matter.

H. R. Borchert, Nebraska Department of Health, is being copied on this letter to keep him informed of the circumstances at Cooper Nuclear Station. This NOED has been evaluated in accordance with 10CFR50.59(a)(1) using the criteria in 10CFR50.92(c) and it has been determined that the NOED involves no significant hazards considerations. The CNS Station Operation Review Committee (SORC) has reviewed and approved this NOED based on the foregoing evaluation.

This NOED would extend for an additional 14 days the LCO for the CNS T/S 3.12.A.3. The District has determined that this request involves no significant increase in the amounts, and no significant change in the type, of any effluent that may be released off site, and that there is no significant increase in individual or cumulative occupational radiation exposure.

Should you have any questions or require additional information, please contact this office.

Sincerely,

G. R. Horn
Vice President - Nuclear

GRH/tja/ya

Attachment

cc: H. R. Borchert
Department of Health
State of Nebraska

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C.

NRC Senior Resident Inspector
Cooper Nuclear Station

bcc: NPG Distribution

REQUEST FOR ENFORCEMENT DISCRETION

1. The Technical Specifications or other license conditions that will be violated.

   - CNS is currently in CNS Technical Specification LCO 3.12.A.3, "Control Room Emergency Filter System," (CREFS).

   - LCO 3.12.A.3 allows continued reactor operations for seven days if the CREFS is inoperable.

   - LCO 3.12.A.3 expires April 18, 1994 at 1:47 p.m. CNS Technical Specification 3.12.A.4 then requires that a reactor shutdown be initiated and the reactor be in a Cold Shutdown within 24 hours.

   - The request for enforcement discretion would allow continued operation for 14 additional days while compensatory measures are put in place as discussed in Section 4 below, to allow sufficient time to effect a permanent resolution.

2. The circumstances surrounding the situation, including the need for prompt action.

   On Monday, April 11, 1994, the Control Room Emergency Filter System was declared inoperable when a planned breach of the Control Room pressurization boundary was made to perform Preventative Maintenance on the latch for Door H300, which is a part of the Control Room Pressurization boundary.

   Following the maintenance activity, CNS Surveillance Procedure 6.3.17.18, "Control Room Envelope Pressurization Test," was performed to demonstrate operability of the ventilation system, but failed to meet its acceptance criteria. The surveillance test was re-performed on April 12, 1994, but still did not meet the acceptance criteria.

   On April 12, 1994, a Problem Resolution Team was formed to evaluate the test results and develop a solution.

   Since that time, various activities have been ongoing in parallel.

   A design change has been implemented to install a loop seal on an equipment drain in the Cable Spreading Room which penetrates the Control Room Pressurization Boundary.

   Plant personnel have been performing local smoke tests to identify and seal all identifiable leaks in the Control Room Envelope.

   The District's Nuclear Engineering Staff is evaluating outside wind speed and direction

and HVAC operation of adjoining areas to determine their effects on the test methodology.

A consultant performed an additional evaluation to determine the effects of wind speed and control room dose rates during accident conditions. They concluded that due to wind dispersion effects, pressurization is not required for wind speeds in excess of 8 MPH in order to assure a habitable environment for the Control Room operators.

These efforts, while still ongoing, have improved the results of the surveillance test, but have not yet resulted in acceptable test results to date. The seven day LCO allowed by Technical Specification 3.12.A.3 ends at 1:47 p.m., April 18, 1994. Therefore, the District requests enforcement discretion as discussed in Sections 3, 6, and 7 below. The implementation of the compensatory measures discussed in Section 4 below, will not result in creating a significant safety hazard, or result in adverse consequences to the environment, and will allow sufficient time for the District to implement permanent solutions.

A storm has damaged the electrical transmission grid, severely limiting east-west power transmission capability. This condition is expected to remain in effect during the period of this request.

3. The safety basis for the request that enforcement discretion be exercised, including an evaluation of the safety significance and potential consequences of the proposed course of action.

The Control Room Emergency Filter System currently meets all of its requirements as specified in Section 3.12.A of the CNS Technical Specifications, i.e. adjacent areas, except that it cannot meet its requirement to maintain positive pressurization with respect to atmospheric pressure with all adjoining buildings' ventilation systems running at their normal design conditions.

The Control Room Emergency Filter System is designed to isolate its normal intake path if high airborne radioactivity is detected, and start the Emergency Bypass Fan, which takes suction through a filter train consisting of a prefilter, a HEPA filter, and a charcoal adsorber filter, designed to sufficiently filter intake air to limit control room operator doses to less than 5 rem whole body, or its equivalent to any part of the body, for the duration of any design basis accident, as specified in 10 CFR 50 Appendix A, General Design Criterion 19. The CREFS also is designed to maintain the Control Room envelope at a positive pressure with respect to all adjoining areas, to prevent any unfiltered potential radiological path into the Control Room.

The Control Room pressurization envelope shares common boundaries with the following:

- Control Building
- Turbine Building
- Reactor Building
- Radwaste Building
- Multi-Purpose Facility
- Computer Room
- Control Corridor
- Outside

The Control Room is maintained at a positive pressure with respect to the above areas. As a result, any leakage between the Control Room envelope and these areas tends to reduce the degree of positive pressurization the Control Room envelope is capable of producing with respect to local atmospheric pressure. This condition is magnified by the small margin of the existing system to effect pressurization.

The Turbine Building ventilation system, which is non-essential, normally runs at a vacuum pressure of -0.25" Wg with respect to atmospheric pressure. The District has successfully completed Surveillance Procedure 6.3.17.18 with the non-essential Turbine Building ventilation system vacuum set at -0.06" Wg. However, the Turbine Building ventilation system's current design basis specifies -0.25" Wg.

Therefore, as discussed below in Section 4, the District proposes to utilize an extra, licensed operator in the Control Room to reduce the Turbine Building ventilation system to -0.05" Wg upon the receipt of a Control Room Ventilation Radiation Monitor High Alarm, and periodically monitor the system for the duration of the postulated event. Through these means, the District will ensure that the Control Room Envelope will remain positively pressurized for the duration of any postulated accident, which might occur while the temporary enforcement discretion is in effect. In addition, the District will ensure, by maintaining the Turbine Building ventilation system at -0.25" Wg that the normal plant design basis will continue to remain valid during the period the temporary enforcement discretion is in effect.

4. Discussion of Proposed Compensatory Measures

As discussed herein, maintaining a positive pressure to the environment for the Control Room Envelope will require manual operator action in addition to the automatic initiation actions. It should be noted that the Control Room Emergency Filter System will continue to automatically actuate upon a Control Room isolation signal, and will maintain its design positive pressure with all adjacent buildings in their normal mode of operation with the exception of the Turbine Building, which must be decreased to a vacuum of -0.05" Wg. In order to provide compensatory measures to minimize the results of this occurrence, strict administrative controls governing the licensed operators' actions, training, and preventive measures will be implemented. These controls will prescribe additional actions that when taken in conjunction with automatic actions will ensure that

the Control Room Envelope will be at a positive pressure to the environment during an accident condition.

A licensed operator will be located in the Control Room with an approved procedure to monitor and adjust, as necessary, the Turbine Building pressure. This licensed operator will ensure the Turbine Building vacuum pressure will not exceed a value of -0.05" Wg for the duration of the postulated event, which will ensure the establishment of the required positive pressure for the Control Room Envelope so that all leakage would be outleakage. This licensed operator will be located in the Control Room where the pertinent indications and controls are located that are necessary to perform this function. Movement to other plant areas is not required for the licensed operator to perform these required duties. With the compensatory measures in place, the personnel in the Control Room will remain free from any outside, gaseous anomalies during an accident, and will be capable of mitigating the accident and performing all of their required functions.

5. Discussion of Duration of This Request

The condition requiring the Notification of Enforcement Discretion (NOED) is not a permanent condition. To correct the condition, the District is requesting a 14 day extension to Technical Specification 3.12.A.3. This noncompliance is nonrecurring, and a license amendment is not needed as a permanent change to the duration of the seven day LCO currently specified in specification 3.12.A.3.

6. The basis for the licensee's conclusion that the noncompliance will not be of potential detriment to the public health and safety and that a significant safety hazard is not involved.

The District has proposed that the 7 day requirement of LCO 3.12.A.3 be extended an additional 14 days in order to be provided additional time to continue corrective actions for restoring the CNS Control Room Envelope. The District has concluded that the requested extension will not be of potential detriment to the public health and safety, and that the extension does not involve a significant safety hazard. These conclusions are based on the following:

A. Noncompliance with LCO 3.12.A.3 for an additional 14 days will not result in a significant increase in the probability or consequences of an accident previously evaluated.

The difficulty in maintaining a positive control room pressure with respect to atmosphere and adjacent buildings has been attributed to several factors. One major factor is the effect of the negative pressure that is maintained in the adjacent buildings during normal plant operations. The District has determined that by reducing the vacuum pressure in the Turbine Building to -0.06" Wg, the design positive pressure is restored in the Control Room envelope. Because

positive pressure in the Control Room becomes critical only during events where a radiological or hazardous release takes place, the District proposes that a licensed operator, with the appropriate training, procedures, and guidance, be in the Control Room to control the Turbine Building pressure. Immediately subsequent to receiving an isolation of the Control Room on high airborne radioactivity, this licensed operator will adjust the Turbine Building pressure (provided the Turbine Building HVAC remains available) to ensure that positive pressure is maintained in the Control Room.

Although the District will be relying on a specific operator action, there is no significant increase in the consequences of an accident. This is because the licensed operator will be able to take immediate action to ensure the positive Control Room envelope, thus achieving the intended system function. Because no credit is taken for the presence or absence of the Turbine Building HVAC during an accident condition, the licensed operator cannot perform an action that would result in an increased probability of an accident previously evaluated. Neither the noncompliance or the compensatory measure results in a change in any accident initiators, nor changes any assumptions of the accident evaluations, nor does it involve the modification or addition of any plant equipment or changes in plant operations. Therefore, an extension of LCO 3.12.A.3 and the accompanying compensatory measure will not result in a significant increase in the probability or consequences of an accident previously evaluated.

B. Noncompliance with LCO 3.12.A.3 for an additional 14 days does not create the possibility of a new or different kind of accident from any accident previously evaluated.

CNS is currently analyzed as requiring a positive Control Room pressure with respect to adjoining areas during various design basis accidents. By maintaining an extra licensed operator to control the Turbine Building atmosphere pressure, positive pressure in the Control Room is maintained. This compensatory measure does not result in the modification of any structure, system, or component, nor does it introduce any change on the mode of plant operation. Therefore, an extension of LCO 3.12.A.3 and the accompanying compensatory measure does not create the possibility of a new or different kind of accident from any accident previously evaluated.

C. Noncompliance with LCO 3.12.A.3 for an additional 14 days does not involve a significant reduction in the margin of safety.

The proposed 14 day extension along with the above described compensatory measure does not result in the change of any plant safety setpoint settings, plant design, or normal plant operations. By utilizing an extra licensed operator for compensatory actions needed to maintain the positive pressure in the Control

Room envelope, the margin of safety is maintained and the Control Room ventilation system will function as designed. Therefore, an extension of LCO 3.12.A.3 and the accompanying compensatory measure does not create a significant reduction in margin of safety.

7. Basis for the Conclusion that the Request Does Not Involve Adverse Consequences to the Environment

Cooper Nuclear Station will remain bounded by the accident analysis for the Design Basis LOCA assumed in the Operational Transient and Accident Analysis. Radiological releases for Transient or Accident Events will be maintained within analyzed limits. No safety setting limits are being adjusted and no initiating signals are influenced. No additional Radiation releases over the present licensing basis will occur with the extension of the LCO for an additional 14 days. For the accident scenario that requires the positive pressure in the Control Room Envelope to be sustained, radiological releases would be maintained within the analyzed limits.

8. Review of Request by Station Operations Review Committee

The Station Operations Review Committee (SORC) has recognized that the Control Room Envelope is not in compliance with the CNS Technical Specifications. Specifically, some manual operator action may be required to establish and maintain a positive pressure for the Control Room Envelope during an accident scenario. SORC has formally reviewed and approved this NOED prior to the District's submittal of this request.