Nebraska Public Power District

GENERAL OFFICE
P.O. BOX 499, COLUMBUS, NEBRASKA 68601-0499
TELEPHONE (402) 564-8561

NLS8800080
June 16, 1988

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: Proposed Change No. 57 to Technical Specifications
Primary Containment Oxygen Analyzer
Cooper Nuclear Station
NRC Docket No. 50-298, DPR-46

In accordance with the applicable provisions specified in 10CFR50, Nebraska Public Power District requests that the Cooper Nuclear Station Technical Specifications be revised to clarify the operability requirements of the Primary Containment Oxygen Analyzer based on the installation of redundant channels in accordance with Reg. Guide 1.97, and to incorporate several administrative changes.

A discussion and the applicable revised Technical Specification pages are contained in Attachment 1. The modifications to the Technical Specifications within this proposed change have been evaluated with respect to the requirements of 10 CFR50.92. The results of the evaluations are also included in the attachment.

This proposed change incorporates all amendments to the CNS Facility Operating License through Amendment 120 issued April 26, 1988. By copy of this letter and attachment the appropriate State of Nebraska official is being notified in accordance with 10CFR50.91(b).

This change has been reviewed by the necessary Safety Review Committees and payment of $150 is submitted in accordance with 10 CFR170.12.

In addition to the signed original, 37 copies are also submitted for your use. Copies to the NRC Region IV Office and the CNS Resident Inspector are also being sent in accordance with 10 CFR50.4(b)(2). Should you have any questions or require additional information, please contact me.

Sincerely,

L. G. Kuncl
Nuclear Power Group Manager

LGK/kcw:cbl1/2
Attachment

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

NRC Resident Inspector Office
Cooper Nuclear Station

NRC Regional Office
Region IV
Arlington, TX

A001
1/1
w/check $150
#202704

STATE OF NEBRASKA)
) ss
Platte County)

L. G. Kuncl, 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 request on behalf of Nebraska Public Power District; and that the statements contained herein are true to the best of his knowledge and belief.

L. G. Kuncl

L. G. Kuncl

Subscribed in my presence and sworn to before me this 16th day of June, 1988.

Colleen M. Kuta

NOTARY PUBLIC

GENERAL NOTARY-State of Nebraska
COLLEEN M. KUTA
My Comm. Exp. Aug. 4, 1989

Revised Technical Specifications for
Primary Containment Oxygen Analyzer

Revised pages: 64
65
66
79
80

Cooper Nuclear Station Technical Specifications currently lists one Analyzer to measure oxygen concentration in the primary containment. The District has installed new oxygen analyzing instrumentation incorporating redundant channels which meet the range, seismic, environmental qualification, electrical separation, and post-accident performance capabilities specified in Regulatory Guide 1.97. This new instrumentation was installed as part of an integrated H_2/O_2 analyzer system during the 1988 refueling outage. Each H_2/O_2 system consists of an analyzer panel and microprocessor controls, along with the necessary recording equipment and plant process computer outputs. Each channel is powered by a separate division of power. The new instrument I.D. number for the O_2 analyzers is PC-AN/CS-H_2/O_2 A and B. Therefore, the District proposes to replace the existing single I.D. number presently listed for the O_2 analyzer (PC-O_2A-512) with the two new I.D. numbers.

The oxygen analyzer is currently listed in Tables 3/4.2.E under instrumentation that monitors drywell leak detection. However, the oxygen analyzer serves no function in coolant leak detection and should be listed under Tables 3/4.2.F for primary containment surveillance instrumentation. Accordingly, the District proposes to remove the oxygen analyzer from Tables 3/4.2.E and incorporate the new analyzer instrumentation into Tables 3/4.2.F. The proposed limiting conditions for operation and action statements in Table 3.2.F for the oxygen analyzer are consistent with the present Technical Specification requirements of Table 3.2.E and Specification 3.6.C. Under present Technical Specifications, the single channel oxygen analyzer can be inoperable during reactor operation for periods up to 30 days before an orderly plant shutdown is required. With the new redundant analyzers and their requirements in Table 3.2.F, operation is permissible only for a period of seven days with no indication in the Control Room (i.e., both channels inoperable). During periods when both channels are inoperable, Primary Containment oxygen concentration can be measured by taking containment air grab samples. These grab samples will be used to satisfy Specification 4.7.A.5.a for oxygen measurement. The proposed surveillance requirements on Table 4.2.F for the Primary Containment Oxygen Analyzer are identical to those currently required by Table 4.2.E.

In summary, the District proposes the following changes:

1. On pages 64 and 79, delete the oxygen analyzer PC-O_2A-512 under the I.D. No. column for the Air Sampling System.

2. On pages 65 and 80, add the new oxygen analyzers PC-AN/CS-H_2/O_2 A and B and their related information to Tables 3/4.2.F.

3. On page 66 add Note No. 3 to allow grab samples to be used to verify primary containment oxygen concentration when both analyzer channels are inoperable.

Evaluation of this Amendment with Respect to 10CFR50.92

The proposed amendment consists of two changes listed as follows:

a. Replacement of the single I.D. number for the O_2 analyzer with I.D. numbers for both channels of the new system.

b. Relocate the oxygen analyzer requirements from Tables 3/4.2.E to Tables 3/4.2.F.

The enclosed Technical Specification change is judged to involve no significant hazards based on the following:

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

Evaluation:

a. This proposed change replaces the single I.D. number for the O_2 analyzer with I.D. Numbers for both channels of the new system. The new I.D. numbers indicate that there are redundant channels supplied by a separate division of power. The new analyzer system will be installed in accordance with commitments made by the District to comply with the guidance of Regulatory Guide 1.97. The monitors do not control the logic or provide inputs to any reactor protection or engineered safety features. These instruments are for the assessment of containment integrity during operation and following design basis accidents. The oxygen analyzer is not required to shut down the plant and since it is redundant and qualified for post-accident environments, it is more reliable than the existing system. Therefore, the change to add new I.D. numbers does not involve a significant increase in the probability or consequences of an accident previously evaluated.

b. This proposed change relocates the requirements for the primary containment oxygen analyzer from the table for instrumentation that monitors drywell leak detection to the table for primary containment surveillance instrumentation. The new requirements reflect the addition of a separate redundant channel to the instrument and provide additional restrictions to instrument operability. The function or operation of the instrument is not affected nor is its interface with other plant systems The change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed license amendment create the possibility for a new or different kind of accident from any accident previously evaluated?

Evaluation:

a. The replacement of a single analyzer with redundant analyzers and changing the I.D. numbers will not create the possibility for a new or different kind of accident. The change is in compliance with NRC guidance to provide redundant monitoring capability and meets the specifications recommended in Regulatory Guide 1.97. The monitor is not required for safe shutdown of the plant.

b. The relocation of the O_2 analyzer requirements to a different section of Technical Specifications will not create the possibility of any new or different kind of accident. The limiting conditions for operation and surveillance requirements remain consistent with previous requirements and have been modified to reflect the addition of the redundant channel. The change will not allow any new mode of plant operation.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Evaluation:

a. The change to the O_2 analyzer I.D. number does not affect any margin of safety. The I.D. Numbers are for tracking of individual components for maintenance and surveillance purposes. The new I.D. numbers reflect the installation of a new, redundant analyzer system and fulfills a previous District Regulatory Guide 1.97 commitment.

b. The relocation of the O_2 analyzer requirements to a different section of Technical Specifications will not affect the availability of oxygen concentration monitoring in the Control Room to assess containment performance during normal and accident conditions. The O_2 analyzer provides no signal to the Reactor Protective System or any Engineered Safety Feature and has no impact on any margin of safety. The proposed change does not involve a significant reduction in a margin of safety.