

# Nebraska Public Power District

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

March 14, 1985

50-298

Office of Inspection and Enforcement  
Attention: Mr. James M. Taylor, Director  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Response to Notice of Violation and Proposed Imposition of Civil  
Penalty (NRC Inspection Report No. 50-298/84-26)

Reference 1: Letter from R. D. Martin to J. M. Pilant dated February 13,  
1985, "Notice of Violation and Proposed Imposition of Civil  
Penalty (NRC Inspection Report No. 50-298/84-26)

Dear Mr. Taylor:

Reference 1 provided notice of a Severity Level III violation related to surveillance testing of the Cooper Nuclear Station (CNS) unit batteries, and proposed imposition of a Civil Penalty. In accordance with 10CFR2.205, Nebraska Public Power District (the District) elects to pay the Civil Penalty in the amount specified in Reference 1, and payment in the amount of Twenty-five Thousand Dollars (\$25,000) is enclosed as Attachment 1. The District will not protest imposition of this penalty in whole or in part, as allowed for in 10CFR2.205.

In accordance with the provisions of 10CFR2.201, the District herein submits as Attachment 2, a written explanation for each of the four alleged violations. It is believed that the actions taken will prevent recurrence of similar situations, and that there is adequate assurance that surveillance tests at Cooper Nuclear Station are conducted according to procedures which demonstrate operability in accordance with Technical Specification requirements.

Sincerely,

L. G. Kunch  
Assistant General Manager - Nuclear

LGK/jdw:rs13/6  
Attachments

cc: Regional Administrator  
USNRC Region IV

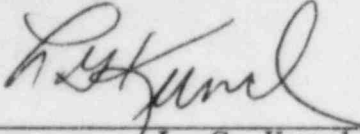
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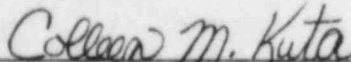
Mr. James M. Taylor  
Page 2  
March 14, 1985

STATE OF NEBRASKA )  
                              )ss  
PLATTE COUNTY      )

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

  
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L. G. Kuncel

Subscribed in my presence and sworn to before me this 14<sup>th</sup> day of  
March, 1985.

  
\_\_\_\_\_  
NOTARY PUBLIC



RESPONSE TO NOTICE OF VIOLATION EA 84-132  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

ALLEGED VIOLATION

- A. Cooper Nuclear Station Technical Specification Surveillance Procedure, Section 4.9.A.3.C, requires that once each operating cycle, unit batteries shall be subjected to a rated load discharge test. This is a surveillance test to demonstrate operability.

Contrary to the above, the rated load discharge tests conducted May 5-8, 1983, on 125-volt and 250-volt unit batteries were not adequate to demonstrate operability in that the tests were performed for the test duration of 8 hours at a discharge rate significantly less than the manufacturer's recommended rated load discharge rate for an 8-hour period.

RESPONSE

The statements contained in this response are numbered to correspond to those requested in the Notice of Violation.

1. Admission or denial of the alleged violation

Admission

2. The reasons for the violation

This violation is attributed to an inadequately defined Station Technical Specification and, therefore, an inadequately defined requirement in a Station Surveillance Procedure. As addressed in the alleged violation, the Technical Specification Section 4.9.A.3.c requires a periodic rated load discharge test, a term which is not defined in either the Updated Safety Analysis Report (USAR) or the Technical Specifications. This term had been assumed to require a discharge test at a load which the batteries would be required to supply during a loss of power event (design rated load), and the Surveillance Procedures were written, accordingly. This design rated load is significantly less than that which the batteries are capable of supplying (manufacturer's nameplate rating). The violation resulted from complying with the Technical Specification as written without questioning its adequacy in proving battery operability.

3. The corrective steps which have been taken and the results achieved

Recognizing that guidance concerning battery testing has evolved over the years since the original plant startup effort (when the assumption as to "rated load" was made), an evaluation was conducted of pertinent requirements contained in NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants", "Standard Technical Specifications For General Electric Boiling Water Reactors (GE-STs) BWR 4", dated March 31, 1983, and IEEE STD 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large

Lead Acid Storage Batteries for Generating Stations and Substations". The vendor manual for the batteries was also reviewed in detail. As a result, it was determined that the CNS Technical Specifications and associated Surveillance Procedures were inadequate to confirm battery system operability. Using the aforementioned guidance documents, changes were made to the Updated Safety Analysis Report, the Technical Specifications, and the Surveillance Procedures. Furthermore, the 125v/250v battery systems were then satisfactorily tested in accordance with the upgraded requirements to confirm the operability of these systems.

4. The corrective steps which will be taken to avoid further violations

It is recognized that this violation is attributed to an inadequately defined Station Technical Specification and, therefore, an inadequately defined requirement in a Station Surveillance Procedure. The District undertook two separate efforts to ensure that other areas of the Technical Specifications are adequate, and to also provide assurance that the relating Surveillance Procedures are adequate. The following is a description of these efforts.

- a. An independent consultant was retained to review a sample section (3.12, "Additional Safety-Related Plant Capabilities") of the CNS Technical Specifications. This effort consisted of the following major steps:
  1. Identification of the surveillance requirements or action statements in the Technical Specifications.
  2. Identification/relationship of the LCO's.
  3. Identification of the operating modes which apply.
  4. A review of each applicable surveillance procedure to confirm adequate coverage of the Technical Specifications.

The Technical Specification review was performed separately from the surveillance procedures review to identify all surveillance requirements prior to confirming their coverage by a CNS procedure. This independent review was considered necessary to avoid the natural tendency of becoming overly familiar with a procedure style, format, logic, etc., such that subtle inconsistencies might be overlooked.

The result of the consultant's review was received December 20, 1984. Eleven different CNS procedures were reviewed including over 15 separate surveillance requirements. Two minor enhancements to CNS procedures were recommended and these changes have been initiated. These minor enhancements were not considered inadequacies in the Technical Specifications or procedures, but simply involved revising the procedures to record the flow rate at which a surveillance test was performed.

b. An offsite group conducted an independent review of selected Technical Specification sections for 1) clarity, 2) correlation with associated LCO's, 3) correlation with associated surveillance procedures, and 4) correlation with Standard Technical Specifications. It was determined whether the procedure adequately addresses the surveillance requirement and whether the surveillance requirement assures that the LCO is met. Ten separate areas of the Technical Specifications were addressed in this review which included over 40 different CNS procedures and over 60 separate surveillance requirements. In this sample, all procedures were determined to adequately address the surveillance requirements, and the surveillance requirements were adequate to assure that the necessary LCO was met.

5. The date when full compliance will be achieved

CNS is presently in full compliance. The changes to the Updated Safety Analysis Report and the Technical Specifications are currently in the review process as a part of the normal administrative controls which govern such changes.

ALLEGED VIOLATION

B. 10CFR, Part 50, Appendix B, Criterion XVII, requires that sufficient records shall be maintained to furnish evidence of activities affecting quality.

Contrary to the above, the licensee had no records of battery charging following the completion of battery discharge tests performed on 125-volt and 250-volt unit batteries in May, 1983. As a result, the time and date the batteries were returned to an operable status after performing a discharge test cannot be determined.

RESPONSE

The statements contained in this response are numbered to correspond to those requested in the Notice of Violation.

1. Admission or denial of the alleged violation

Admission

2. The reasons for the violation

This violation resulted from inadequate procedures. Prior to the procedural changes noted in the response to alleged Violation A., the batteries were recharged after each rated load discharge test by a step

in the procedure which required a battery charge per the manufacturer's recommendations. Definitive guidance was not given and no records of the charge were required.

3. The corrective steps which have been taken and the results achieved

A stand-alone procedure was written for conducting battery charges which requires that appropriate records be kept. Additionally, the procedures which govern test discharges were modified to require recharge of the battery at the completion of the test and to require a log entry when the battery system is returned to operable status.

4. The corrective steps which will be taken to avoid further violations

A statistical sample of procedures was reviewed as discussed in A.4 above to provide adequate assurance that additional procedure violations of this type will not result.

5. The date when full compliance will be achieved

CNS is presently in full compliance.

ALLEGED VIOLATION

- C. Cooper Nuclear Station Technical Specification Surveillance Procedure, Section 4.9.A.3.b, requires that measurements shall be made every 3 months of the voltage and specific gravity of each battery cell, and of the temperature of every sixth cell. This is a surveillance test to demonstrate operability.

Contrary to the above, the licensee did not make adequate measurements of the specific gravity of each battery cell after January 26, 1982 until the time of the special inspection on November 13-16, 1984 in that, in measuring the specific gravity of 125-volt and 250-volt unit batteries; the licensee failed to correct specific gravity measurements for electrolyte temperature and level as required by the manufacturer's instructions and IEEE 450 (1975). Thus, the recorded measured values of battery cell specific gravities do not show whether the batteries required charging and the operable status of the batteries was not demonstrated.

RESPONSE

The statements contained in this response are numbered to correspond to those requested in the Notice of Violation.

1. Admission or denial of the alleged violation

Admission

2. The reasons for the violation

This violation resulted from inadequate procedures and a lack of understanding of the manufacturer's recommendations and the requirements of IEEE-450.

3. The corrective steps which have been taken and the results achieved

As a part of the evaluation of pertinent guidance documents noted in the response to alleged Violation A, the personnel involved in battery testing conducted a detailed review of IEEE-450 and the manufacturer's instructions regarding specific gravity. As a result, procedural changes were made to include guidance related to correcting specific gravity readings for electrolyte level and temperature, as well as to provide directions such that the measured values provide meaningful results. These upgraded procedures will be utilized during subsequent measurements of battery specific gravity.

4. The corrective steps which will be taken to avoid further violations

A statistical sample of procedures was reviewed as discussed in A.4 above to provide assurance that procedures adequately address the requirements of the Technical Specifications.

5. The date when full compliance will be achieved

CNS is presently in full compliance.

ALLEGED VIOLATION

- D. Technical Specification 6.3.2.A requires that there be written procedures for the normal startup operation or shutdown of all systems affecting nuclear safety.

Contrary to the above, as of November 13, 1984, the licensee had no written procedure for conducting charges of the unit batteries.

RESPONSE

The statements contained in this response are numbered to correspond to those requested in the Notice of Violation.

1. Admission or denial of the alleged violation

Admission

2. The reasons for the violation

This violation resulted from lack of written procedures. Prior to the procedural changes noted in the response to alleged Violation A., the batteries were recharged after each rated load discharge test by a step in the procedure which required a battery charge per the manufacturer's recommendations.

3. The corrective steps which have been taken and the results achieved

A stand-alone procedure was written for conducting battery charges.

4. The corrective steps which will be taken to avoid further violations

A statistical sample of procedures was reviewed as discussed in A.4 above to provide assurance that all Technical Specification requirements are adequately addressed by procedures.

5. The date when full compliance will be achieved

CNS is presently in full compliance.

JDW:rs13/6a