



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

MAY 21 1992

Docket No. 50-298
License No. DPR-46
EA 92-043

Nebraska Public Power District
ATTN: Guy R. Horn, Nuclear Power
Group Manager
P.O. Box 499
Columbus, Nebraska 68602-0499

Gentlemen:

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT
NO. 50-298/92-04)

This is in reference to the inspection conducted between February 5 and March 3, 1992, relative to the operation of the Cooper Nuclear Station (CNS) facility with degraded 250-volt unit battery cells. This inspection, which was described in a report issued on March 11, 1992, led to a management meeting with Nebraska Public Power District (NPPD) personnel in the NRC's Region IV office on February 21, 1992, and to an enforcement conference at CNS on March 24, 1992.

These meetings were held to discuss the ineffective corrective actions to address the degradation of both station 250-volt batteries due to copper contamination, to discuss NRC's concerns about operating the facility with a degraded cell in the 1A 250-volt unit battery (the cell voltage was determined during a surveillance test to be below the Technical Specifications (TS) referenced cell voltage), and to provide NRC information to determine the appropriate enforcement action for the apparent violations of NRC requirements associated with this issue.

The events surrounding this issue are described in detail in the subject inspection report. In brief, CNS personnel discovered on December 18, 1991, a degraded cell in the 1A 250-volt unit battery, one of two such batteries that serve as a backup to certain essential equipment in the event of loss of normal power supplies. Station personnel documented the degraded condition in a nonconformance report but took no actions to immediately restore the cell voltage or to remove the affected cell from service. Subsequent licensee discussions with the battery manufacturer identified that the low cell voltage was caused by copper contamination, a condition that affected a significant

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number of cells in both station 250-volt batteries. Monitoring of the potentially degraded cells of both 250-volt batteries was implemented on January 8, 1992. Nevertheless, a written operability determination for the battery with the degraded cell was not performed until January 15, 1992. The licensee declared the 1A 250-volt battery inoperable after discussing the condition with the NRC on February 7, 1992. Plant operation continued until February 10, when a similar degradation was recognized on the 1B 250-volt battery, and the plant was shut down.

In Licensee Event Report 92-003, which NPPD submitted to NRC on March 9, 1992, NPPD said that the TS Limiting Condition for Operation (LCO) was not entered when the degraded cell was first detected "due to information in the Technical Specification Bases section which was interpreted to allow an evaluation of the effect of the individual cell's condition on overall battery operability."

NRC has concluded, based on the wording of the CNS TS, that there was not a legally enforceable regulatory requirement to enter the battery LCO action statement because an individual battery cell failed its TS surveillance test. Thus, the applicable CNS TS action statement was not violated. A license amendment was approved by the NRC that addressed the required actions upon identifying battery cells that do not satisfy the surveillance test acceptance criteria.

NRC, however, views NPPD's actions upon discovery of the degraded battery cell to monitor the cell voltage on a more frequent basis as inadequate in that the identification of a degraded cell on the 1B 250-volt battery on February 5, 1992, was not brought to management's attention until February 10, 1992. In addition, we are particularly concerned that your corrective action program failed to recognize that such corrective actions were outside the battery inspection and testing requirements described in the Updated Safety Analysis Report. Section VIII-6.5 commits to the IEEE 450-1987 standard that would require immediate corrective actions when cell voltage was measured below 2.13 volts. In this event, no action was taken to restore cell voltage or to remove the affected cell from service. Furthermore, the uncorrected condition of copper contamination in a significant number of battery cells represented an unanalyzed common-mode failure mechanism that caused the failure of a cell in both station 250-volt batteries to meet TS minimum individual cell voltage requirements and was of concern to NRC.

NPPD's after-the-fact testing of degraded cells concluded that the battery would have performed its intended function with up to five cells removed from service. Although no action was taken to remove the degraded cells from service and although a significant

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number of battery cells were affected by the copper contamination condition, NRC has no basis for disputing that conclusion.

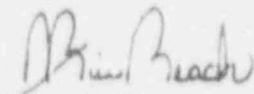
The first violation in the enclosed Notice of Violation addresses the failure to promptly correct an identified condition adverse to quality and the failure to implement measures to prevent recurrence. The failure to perform a written operability determination until January 15, 1992, and to have that determination reviewed by the Station Operation Review Committee, as required by CNS Procedure 0.27, is the second violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR Part 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room. The responses directed by this letter and the enclosed notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Should you have any questions, please do not hesitate to contact me or my staff.

Sincerely,



A. Bill Beach, Director
Division of Reactor Projects

Enclosure:
Notice of Violation

cc: w/enclosure
Nebraska Public Power District
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Cooper Nuclear Station
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