



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
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July 14, 2008

EA 07-204

Stewart B. Minahan  
Vice President-Nuclear and CNO  
Nebraska Public Power District  
P.O. Box 98  
Brownville, NE 68321

SUBJECT: ERRATA FOR FINAL SIGNIFICANCE DETERMINATION FOR A WHITE  
FINDING AND NOTICE OF VIOLATION, NRC INSPECTION  
REPORT 05000298/2008008, COOPER NUCLEAR STATION

Dear Mr. Minahan:

This Errata corrects the decision basis for the significance determination for the subject violation. Table 4 in Enclosure 2 of our letter (ML081650090) (Caniano to Minahan, dated June 13, 2008) erroneously provided data that had been used in a sensitivity study as opposed to the probabilities calculated to support the final determination of significance. Please replace Page E2-13 of Enclosure 2, "Final Significance Determination Summary," with the enclosed revised page. We regret any inconvenience this may have caused.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

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Docket: 50-298  
License: DPR-46

Nebraska Public Power District  
EA 07-204

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M.Runyan for	/RA/			
7/14/08	7/14/08			

The analyst used the main control room abandonment frequencies documented in Table 3. In addition, sensitivities were run using the licensee's values.

Recovery Following Failure of Valve RHR-MO-25B

As documented in Assumption 5, the analyst calculated a combined non-recovery probability using the event tree shown in Figure 2 in the Attachment.

Table 4 documents the final split fractions used in quantifying this event tree.

<b>Table 4</b>		
<b>Split Fractions for RECOVERY-PATH</b>		
Top Event	How Assessed	Failure Probability
LEVEL-DOWN	SPAR-H (Diagnosis Only)	$8.8 \times 10^{-4}$
SRV-STATUS	Best Estimate of Fraction	$1.0 \times 10^{-1}$
CLOSE-SRVS	SPAR-H (Action Only)	$5.7 \times 10^{-4}$
RESTORE-HPCI	SPAR-H (Combined)	$1.9 \times 10^{-2}$
OPEN-MO-25B-3	SPAR-H (Combined)	$6.7 \times 10^{-1}$
OPEN-MO-25B-5/7	SPAR-H (Combined)	$6.7 \times 10^{-1}$

Using the event tree in Figure 2 and the split fractions in Table 4, the analyst calculated a combined non-recovery probability of  $7.9 \times 10^{-2}$ . The licensee's combined non-recovery probability was  $4.0 \times 10^{-3}$ . The licensee used a similar approach to quantify this value. However, the licensee assumed that operators would always shut the safety-relief valves upon determining that reactor pressure vessel water level was decreasing. The analyst assumed that some percentage of operators would continue to follow the procedure and attempt to recover from the failed RHR valve or try alternate methods of low-pressure injection. In addition, the analyst identified the following issues that impacted the licensee's analysis:

- The inspectors determined that it would require 112 ft-lbs of force to manually open Valve RHR-MO-25B. The analyst determined that this affected the ergonomics of this recovery. Some operators may assume that the valve is on the backseat when large forces are required to open it. Some operators might be incapable of applying this force to a 2-foot diameter hand wheel.
- The analyst noted that the following valves would be potential reasons for lack of injection flow and/or may distract operators from diagnosing that Valve RHR-MO-025B is closed:
  - RHR-81B, RHR Loop B Injection Shutoff Valve, could be closed.
  - RHR-27CV, RHR Loop B Injection Line Testable Check Valve, could be stuck closed.