

Duke Power Company  
Catawba Nuclear Generation Department  
4800 Concord Road  
York, SC 29745

D. L. Rehn  
Vice President  
(803)831-3205 Office  
(803)831-3426 Fax



**DUKE POWER**

November 7, 1994

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

Subject: Catawba Nuclear Station  
Dockets 50-413 and 50-414  
Reply to Notice of Violation  
Inspection Report Nos. 50-413/94-24 and 50-414/94-24

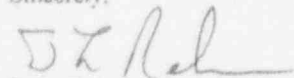
Attached is Duke Power Company's response to the one (1) Level IV violation cited in the Notice of Violation (NOV) of Inspection Report 50-413/94-24 and 50-414/94-24, dated October 6, 1994. This violation was identified regarding use of inaccurate electrical elementary diagrams which caused an inadvertent reactor trip.

The NOV cover letter also suggested that increased management attention is warranted in the area of equipment failure troubleshooting/root cause determination. The Catawba Management Team has taken action to develop an overall process for root cause determination of which troubleshooting is a significant, vital piece. Several recent situations related to troubleshooting including those cited in the NOV, have caused us to re-access our approach to troubleshooting. The Nuclear Excellence Quality Steering Team (NEQST) has chartered a team to develop a consistent root cause process that will provide for development of a clear plan for troubleshooting activities. The process also calls for clear communication and troubleshooting status for shift turnovers and to management. The expectation is that this process will be simple and useable for any level of investigation and result in accurate and timely root cause determination. A draft has been approved by the NEQST and is being prepared for implementation. We anticipate this process to be in use by December, 1994, on a trial basis. Once integrated into our work management process, we expect full implementation by early 1995.

Additionally, the Maintenance Superintendents from all our nuclear sites have chartered a separate team to look at revamping/enhancing our troubleshooting procedure. The expectation of this team is to develop a consistent, thorough and useable troubleshooting procedure. This enhanced troubleshooting procedure should be implemented by December 31, 1994, and will be integrated into the overall root cause process referenced above.

The two initiatives discussed above demonstrate an aggressive approach at Catawba to improve the effectiveness of our troubleshooting/root cause determination process. If you have any questions, please contact Zach Taylor at 803-831-3812.

Sincerely,

  
D. L. Rehn

WEN:RESP94.24

cc: S. D. Ebnetter, Regional Administrator

R. E. Martin, ONRR

R. J. Freudenberger, SRI

150025

9411150368 941107  
PDR ADDCK 05000413  
PDR

JEU

U. S. Nuclear Regulatory Commission

November 07, 1994

Page 2

|       |                       |                 |
|-------|-----------------------|-----------------|
| bxcc: | ELL                   | - EC05O         |
|       | Z. L. Taylor          | - CN01RC        |
|       | J. E. Snyder          | - MG01RC        |
|       | J. E. Burchfield      | - ON03RC        |
|       | B. J. Horsley         | - EC12T         |
|       | NSRB Staff            | - EC05N         |
|       | NCMPA-1               |                 |
|       | SREC                  |                 |
|       | PMPA                  |                 |
|       | NCEM                  |                 |
|       | W. R. McCollum        | - CN01SM        |
|       | T. P. Harrall         | - CN03MA        |
|       | T. B. Bright          | - CN03MC        |
|       | J. S. Forbes          | - CN01EG        |
|       | A. S. Bhatnager       | - CN03ES        |
|       | C. W. Boyd            | - CN04B         |
|       | K. W. Allgood         | - CN04D         |
|       | Master File CN-815.01 | - CN02DC        |
|       | K. E. Nicholson       | - IR File 94-24 |
|       |                       | - PIP- C94-1249 |

**DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
REPLY TO NOTICE OF VIOLATION  
413, 414/94-24-01**

**Notice of Violation**

During an NRC inspection conducted on August 14, 1994 - September 10, 1994, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violation is listed below:

10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires that activities affecting the quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, Unit 2 drawing CNEE-0274-01.11, "Elementary Diagram Solid State Protection System (IPE) Event Recorder Points," Revision 6, dated January 25, 1993, was not appropriate to the circumstances in that it did not accurately prescribe an activity affecting quality. Drawing CNEE-0274-01.11 erroneously delineated sliding link A-21 in cabinet 2IC8 as being in the Manual Safety Injection A push-button sequence of events recorder circuit in the Solid State Protection System. On August 30, 1994, the erroneous sliding link delineated on the drawing was utilized to perform troubleshooting on the safety related portion of the Manual Safety Injection A push-button sequence of events recorder circuit. Inaccurate delineation of the sliding link location resulted in an inadvertent deenergizing of the A reactor trip breaker under voltage trip coil and the subsequent Unit 2 reactor trip.

This is a Severity Level IV violation (Supplement I).

**DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
REPLY TO NOTICE OF VIOLATION  
413, 414/94-24-01**

**RESPONSE:**

**1. Reason for Violation**

The exact reason Electrical Elementary Diagram CNEE-0274-01.11 did not match the associated connection diagrams could not be determined. The error has existed since the drawing was originated during initial plant construction. Minor Mod CE-3515 was written to make the CNEE-0274-01.11 easier to read (the information presented in a table was converted into 4 circuit diagrams). While updating the drawing, several discrepancies were discovered between the table and the Minor Mod. After a review of the Minor Mod with plant engineering, it was determined that the information in the table was correct. The drawing was revised using the information contained in the table. Discussions with the individuals involved with Minor Mod CE-3515 indicated that the connection drawings (which were correct) were not reviewed while making this determination. Had the connection diagrams been consulted, the errors would have been identified and corrected. While this revision did not create the errors, an opportunity to correct the drawing was missed. The process used for incorporating the minor mod into the drawing met the established work practices in place at the time.

**2. Corrective Actions Taken and Results Achieved**

Drawing CNEE-0274-01.11 was revised on September 9, 1994 to reflect the current installation and connection diagrams.

The corresponding Unit 1 electrical elementary drawing was reviewed and determined to be correct.

**3. Corrective Actions to be Taken to Avoid Future Violations**

Engineering guidelines for preparing and checking editorial changes to drawings will be revised by February 26, 1995, to provide clear guidance on the proper cross reference documents to be used during this process.

The Safety Review Group (SRG) has identified an adverse trend with drawing problems based on a review of the Problem Investigation Problem (PIP) Data Base.

**DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
REPLY TO NOTICE OF VIOLATION  
413, 414/94-24-01**

PIP 0-C94-1540 has been generated which identifies this trend. SRG will assist Engineering in determining commonalties and development of appropriate corrective actions, which will be tracked to completion in this PIP.

**4. Date of Full Compliance**

Duke Power Company is now in full compliance.