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DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

June 25, 1981

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: RII:JCB
50-413/81-02
50-414/81-02

Dear Mr. O'Reilly:

Please find attached an amended response to Infraction Nos. 414/81-02-02 and 413-414/81-02-03 as identified in the above referenced Inspection Report. Duke Power Company does not consider any information contained in this inspection report to be proprietary.

I declare under penalty of perjury, that the statements setforth herein are true and correct to the best of my knowledge.

Very truly yours,

William O. Parker Jr. RWO

William O. Parker, Jr.

RWO/php
Attachment

cc: NRC Resident Inspector
Catawba Nuclear Station

DUKE POWER COMPANY

CATAWBA NUCLEAR STATION

NOTICE OF VIOLATION (Paragraph A)

As a result of the inspection conducted on January 26 - February 6, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified.

A. 10 CFR 50, Appendix B, Criterion XVI, requires that measures be established to assure that identification of significant conditions adverse to quality be reported to the appropriate levels of management. Duke Power Company Topical Report, Section 17.1.16, the Engineering QA Program, contains procedures for resolving conditions adverse to quality. Design Engineering Department Procedure DP-220, Nonconforming Item Reports, Section 2.2, requires the responsible Engineer to evaluate the nonconformance to ascertain if it is reportable to management under the provisions of Procedure PR-290, Nuclear Regulatory Commission Reporting Requirements.

Contrary to the above, the measures established to assure that significant conditions adverse to quality are properly evaluated and reported to appropriate levels of management are not adequate. The responsible evaluating design engineer did not perform an adequate evaluation of Nonconforming Report Nos. 9755, 10665, 10684, 10721, 10745, 10752, 10818, and 10852 (covering 13 defective 600V safety-related circuit breakers) in that no information was forwarded to management for reportability evaluation.

This is a Severity Level IV Violation (Supplement II.D.2) applicable to Unit 2 only.

RESPONSE:

1) Duke admits the violation.

2) This problem occurred because of unclear procedures and inconsistencies in training by persons responsible for training. (See Response to Violation B in William O. Parker, Jr. letter of May 13, 1981.)

3) The conditions reported on Non-conforming Item Reports 9755, 10665, 10684, 10721, 10745, 10752, 10818, and 10852 were properly evaluated and forwarded to management for reportability evaluation. Additional comments are also included on Non-conforming Item Report 10727.

   a) Non-conforming Item 9755 on a 4160 volt switchgear breaker serial number (50465E-1-10226) for 2ETA12 was found in the switchgear cubicle by the Transmission Department to have a broken control contact block. The breakage was considered to be isolated field damage based on discussions between the responsible equipment engineer and site technical support engineer. A new block was purchased and installed on the breaker.

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NOTICE OF VIOLATION (Paragraph A)
RESPONSE
3) a) - continued

The reportability was again reviewed and verified on 10/28/80 with final technical approval and verification of non-reportability on 10/29/80.

b) Non-Conforming Items 10665, 10684, 10721, 10727, 10745, and 10818 issued on six 600 volts loadcenter breakers with cracked arcing contacts were received by Design Engineering Electrical Division on 1/29/81 and 2/2/81 (NCI 10818 only) and reviewed for reportability. Potential Reportable Item CA-80-14 was issued to management on 2/3/81. The final determination of reportability was made on 2/10/81 and reported to NRC Region II on the same day.

Non-Conforming Item 10752 issued on one 600 volt loadcenter breaker with cracked arc chute retainer molding was incorrectly included with the Non-Conforming Items on cracked arcing contacts. This damage found by Transmission Department during initial inspection of the breaker was evaluated to be due to breaker handling during long term storage and general weakness of the breaker packaging. The non-reportability was determined and documented on 3/6/81 with final technical approval and verification of non-reportability on 3/9/81.

Non-Conforming Item 10852 issued on eight 600 volt loadcenter breakers for cracked arcing contacts, broken control contact blocks, and cracked arc chute was received by Design Engineering Electrical Division on 2/6/81. The cracked arcing contacts found on five additional breakers were evaluated as reportable and considered in the scope of Reportable Item CA-80-14. The broken control contact blocks found during the inspection for cracked arcing contacts were evaluated for reportability. It was determined that these broken control blocks were not a new reportable item and an evaluation was included in Report Number SD-50-413-414/81-02. The cracked arc chute was evaluated and determined not reportable. The control block and arc chute breakage was evaluated to be due to breaker handling during long term storage and a general weakness of the breaker packaging.

c) It should be noted that the NRC Inspector reviewed these Non-Conforming Item Reports (Except 9755) during the same period that Catawba QA was reviewing for assignment of resolution. Thus the appropriate reviewing authority, Design Engineering Electrical Division, had not had a chance to evaluate for reportability to management prior to the alleged violation being made by the NRC. See Table 1 for details.

TABLE 1

Catawba Switchgear and Loadcenter Breaker Nonconformance Reports

Catawba NCI Number	Originated Senior Engr Review QA Review	Received By Pwr Equip Group	Potential Reportable Item	Reported To NRC	30 Day Report Issued To SRAL Division	Note
9755	10-10-80 10-10-80 10-14-80	10-22-80	N/A	N/A	N/A	1
10665	01-13-81 01-15-81 01-20-81	01-29-81	02-03-81	02-10-81	03-02-81	2
10684	01-15-81 01-15-81 01-20-81	01-29-81	02-03-81	02-10-81	03-02-81	2
10721	01-16-81 01-16-81 01-20-81	01-29-81	02-03-81	02-10-81	03-02-81	2
10727	01-19-81 01-19-81 01-22-81	01-29-81	02-03-81	02-10-81	03-02-81	2
10745	01-20-81 01-20-81 01-22-81	01-29-81	02-03-81	02-10-81	03-02-81	2
10752	01-21-81 01-21-81 01-22-81	01-29-81	02-03-81	02-10-81	N/A	4
10818	01-26-81 01-26-81 01-26-81	02-02-81	02-03-81	02-10-81	03-02-81	2
10852	01-28-81 01-29-81 01-29-81	02-06-81	N/A	02-10-81	03-02-81	2,3

TABLE 1
Catawba Switchgear and Loadcenter Breaker Nonconformance Reports
Page 2

Scope of Nonconformance Reports

Catawba NCI Number	Number of Breakers	Arcing Contacts		Contact Blocks	Arc Chute	Serial Number
		4160 Volt Switchgear				
9735	1	1 Switchgear breaker with broken control contact block.				
		600 Volt Loadcenter Breakers				
10665	1	X	(S)			50583-K1-13-02078
10684	1	X	(M)			50583-K1-12-04078
10721	1	X	(M)			58583H3-11-01224
10727	1	X	(M)			50583H3-11-02224
10745	1	X	(M)			50583H1-12-01224
10752	1				X	50583K3-11-01078
10818	1	X	(M)			50583H1-12-02224
10852	8	X	(M)			50583H1-12-03224
				X		50583H1-11-01224
		X	(M)	X		50583H1-11-02224
		X	(M)		X	50583K3-13-01078
		X	(M)	X		50583H1-12-05224
				X		50583193-12-01078
				X		50583K3-11-02078
		X	(M)			50583H3-11-01224

M - Movable arcing contact

S - Stationary arcing contact

TABLE 1
Catawba Switchgear and Loadcenter Nonconformance Reports

Notes on Nonconformance Reports

1. NCI 9755 issued on a 4160 volt switchgear breaker Serial Number 50465E-1-10226 with a cracked control contact block. Breakage was considered to be isolated field damage and not reportable.

2. NCI's 10684, 10721, 10727, 10745, and 10818 were issued on cracked moving arcing contacts for 600 volt loadcenter breakers. NCI 10665 was issued on a cracked stationary arcing contact for 600 volt loadcenter breaker. These were reported to management on Potential Reportable Item Serial Number CA-80-14 dated 02-03-81. This was determined reportable and reported to NRC on 02-10-81.

3. NCI 10852 was issued on eight 600 volt loadcenter breakers with cracked arcing contacts, broken control contact blocks, and cracked arc chute molding. The cracked arcing contacts found on five additional breakers were evaluated as reportable and considered in scope of Reportable Item CA-80-14 dated 02-03-81. It was determined that these control blocks were not a new reportable item and an evaluation was included in the 30-day Report Number SD-50-413-414/81-02. The cracked arc chute was evaluated and determined not reportable.

4. NCI 10752 issued on one 600 volt loadcenter breaker with cracked arc chute retainer molding was incorrectly included with the Nonconforming Items issued on cracked arcing contacts and Reportable Item CA-80-14.

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RESPONSE - continued

4) Duke Power procedures on reportability have been clarified. All responsible persons have been trained by the QA Manager, Technical Services, to ensure consistency of training. These steps were completed on April 27, 1981.

5) Full compliance has now been achieved.

NOTICE OF VIOLATION (Paragraph C)

C. 10 CFR 50, Appendix B, Criterion V, states that activities affecting 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... shall include appropriate qualitative acceptance criteria...The Duke Topical Report on Quality Assurance, Paragraph 17.1.5.2, requires that the acceptance criteria established by Design Engineering are incorporated in the instructions, procedures or drawings used to perform the work. Procedures also provide for review, audit, approval and documentation of activities affecting the quality of safety-related items and determine that all criteria have been met.

Contrary to the above, site procedures and drawings did not contain acceptance criteria as evidenced by:

1. Procedures and drawings for installation of pressurizer relief tanks did not include inspection requirements nor acceptance criteria for the location of sliding supports.

2. Procedures and drawings did not require documentation of status of partially completed work that is transferred from the fabrication shops to the field for completion.

RESPONSE:

1) Duke admits the violation.

2) Erection and inspection personnel failed to comply with drawings during installation.

3) Details and Corrective Action:

Pressurizer Relief Tank
Drawings CN-1050-6, R18 and CN-1050-7, R20 provide adequate instructions for installation of the special sliding support including a minimum acceptance criteria of 3/4 inch clearance between the anchor bolt and support slot. Drawing CN-1050-6 shows the building location of the concrete support pad and anchor bolts. Section S-S is clearly noted. Drawing CN-1050-7

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RESPONSE
3) - Continued

shows the anchor bolt detail S-S. Also reference is made to Section U-U. Section U-U provides details of the bolt relative to the slotted support. The 3/4 inch clearance is noted on Section U-U. Erection and inspection did not comply with these drawings during the installation of the pressurizer relief tank.

Non-conforming item report 11420 was issued regarding the anchor bolt gap on the pressurizer relief tank sliding support. It has been established that a minimum 5/8 inch gap is necessary and the slots will be increased. Drawing CN-1050-7 will be revised to show the 5/8 inch gap per the "as built" condition. A review of Design Engineering requirements for sliding base supports was conducted.

Partially Completed Work

Improper control of partially completed work that is transferred from the fabrication shops to the field for completion did occur in the case of Containment Spray Heat Exchangers 1A, 1B, 2A, and 2B as stated. The fabrication shop failed to install the correct size weld as required by the drawings and procedures, and inspectors failed to verify correct weld size before allowing the partially completed work to be transferred from the shop.

A re-inspection of all mechanical equipment supports to the requirements of QAP M-18 (Inspection of Structure Steel Erection) has been completed by structural and welding inspectors to assure conformance with design drawings. The re-inspection did identify undersized welds on Containment Spray Heat Exchangers 1A, 1B, 2A, and 2B. Non-conforming Item Report 9725 addresses this problem. The resolution for NCI 9725 failed to address the possibility of over-stressed welds due to loading by setting the equipment in place prior to weld completion. Non-conforming Item Report 11513 addresses the possibility of over-stressing the welds due to loading.

4) A. Pressurizer Relief Tank

Erection and Inspection personnel will be trained in requirements of complying with Design documents.

B. Partially Completed Work

To preclude any future problems a hold point will be placed in the equipment setting package per Procedure M-9 that will require structural inspection prior to equipment setting.

5) Full compliance will be achieved by September 1, 1981.