

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

November 7, 1989

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555

Serial No. 88-788F  
NAPS/JHL  
Docket Nos. 50-338  
50-339  
License Nos. NPF-4  
NPF-7

Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**NORTH ANNA POWER STATION UNIT NOS. 1 AND 2**  
**RESPONSE TO NRC BULLETIN NO. 88-10, SUPPLEMENT 1**  
**NONCONFORMING MOLDED-CASE CIRCUIT BREAKERS**

As requested by NRC Bulletin No. 88-10, Supplement 1, Nonconforming Molded-Case Circuit Breakers, the Virginia Electric and Power Company has reviewed the previous responses to NRC Bulletin No. 88-10, dated March 31, 1989 and May 5, 1989. It has been determined that the previous responses did not completely meet the bulletin provisions as clarified by Supplement 1. Specifically, the previous responses did not adequately identify 1) all molded-case circuit breakers (MCCBs) maintained as stored spares for safety related applications that could not be traced to a circuit breaker manufacturer or 2) MCCBs purchased between August 1, 1983 and August 1, 1988 and installed in safety related applications. Previous responses did adequately reflect the programmatic controls initiated to ensure that traceable MCCBs would be procured in the future.

In our original submittal we assumed that breakers ordered from Westinghouse Electric Supply Company (WESTCO) and General Electric Supply Company (GESCO) were traceable to the original circuit breaker manufacturer. After assembling auditable documentation, we determined that documented traceability did not clearly exist and that the original population of non-traceable breakers was higher than originally reported.

Attachment 1 provides a revised summary of non-traceable MCCBs that are being maintained as stored spares for safety related applications. Sixty-one (61) of the 107 stored spare MCCBs were classified as being non-traceable. These non-traceable MCCBs were placed on QC hold in the warehouse and will not be used in plant applications. It is our intention to test these non-traceable MCCBs in accordance with Attachment 1 of NRC Bulletin 88-10.

Since it is now recognized that less than 80% of the total MCCBs maintained as stored spares have been verified as being traceable to the breaker manufacturer, we are proceeding to identify the non-traceable breakers installed in the plant in safety related applications. This effort will include the review of previously installed Engineering Work Requests and Design Change Packages, Material Requests, Storeroom Transaction Logs and Maintenance Work Orders.

We are currently in the process of testing the 61 in stock non-traceable breakers discovered in the warehouse inventory in an effort to detect fraudulent or substandard breakers. Based on past procurement practices, there is no technical difference in the way the 61 in stock non-traceable MCCBs were procured and the way the currently installed breakers were procured. This testing is intended to give some reasonable assurance about the quality of the installed breakers that may not be traceable. In addition, we have completed walkdowns and visual inspections, based on the Guidelines for Identifying Suspect Molded Case Circuit Breakers contained within NUMARC letter dated March 8, 1989, of all traceable and non-traceable safety related breakers in stock and have identified no breakers that exhibit tampering or fraudulent manufacturing. Finally, longstanding maintenance practices require that all safety related replacement circuit breakers normally be functionally tested prior to being declared operational. Only breakers that satisfactorily pass this test are installed.

As reported in our May 5, 1989 supplemental response to the NRC Bulletin 88-10, a review of the purchase order files that had supplied the originally identified non-traceable in stock MCCBs was conducted. Of the 18 MCCB's judged at that time to be non-traceable, only six MCCBs were determined to be installed in the plant. Of these six MCCBs only one was found to be installed in a safety application. All six non-traceable installed MCCBs were replaced with traceable breakers.

It is our intention to identify any non-traceable MCCBs in safety related systems, develop any necessary Justification for Continued Operation, and replace those non-traceable MCCBs by the end of the next refueling outage for each unit. Also, we have re-evaluated our procurement procedures and practices to determine if any further actions are required to ensure only qualified MCCBs are being purchased and maintained as stored spares. These controls continue to ensure that purchases, since April 1989, of MCCBs for safety related applications are from an approved circuit breaker manufacturer with a 10 CFR 50, Appendix B Program or from an approved distributor that can certify direct traceability to a circuit breaker manufacturer. To provide an additional level of assurance, traceability will be verified by audit or by other appropriate means. An auditable documentation package associated with the review of MCCBs in stock is being maintained. Additional documentation for the installed breakers in the plant will be developed.

Should you have any questions concerning this response, please contact us immediately.

Very truly yours,

*W. L. Stewart*

W. L. Stewart  
Senior Vice President - Nuclear

Attachment

cc: U. S. Nuclear Regulatory Commission  
Region II  
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Atlanta, Georgia 30323

Mr. J. L. Caldwell  
NRC Senior Resident Inspector  
North Anna Power Station



COMMONWEALTH OF VIRGINIA )  
 )  
COUNTY OF HENRICO )

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by F. K. Moore who is Vice President - Nuclear Engineering Services, for W. L. Stewart who is Senior Vice President - Nuclear, of Virginia Electric and Power Company. He is duly authorized to execute and file the foregoing document in behalf of that Company, and the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 7<sup>TH</sup> day of November, 1989.

My Commission Expires: February 25, 1990.

Vicki L. Hull  
Notary Public

(SEAL)

ATTACHMENT 1  
NON TRACEABLE SAFETY RELATED STORES MCCBS

<u>P. O. NO.</u>	<u>P. O. DATE</u>	<u>MANUFACTURER</u>	<u>SUPPLIER</u>	<u>MODEL NO.</u>	<u>QTY</u>
NS-35639	10/11/77	GEN. ELECTRIC	GESCO	TQB 1110	5
NS-35639	11/10/77	GEN. ELECTRIC	GESCO	TEB 111015	1
NS-35639	10/11/77	GEN. ELECTRIC	GESCO	TEB 111050	1
NS-35639	10/11/77	GEN. ELECTRIC	GESCO	TEB 111070	1
NS-35639	10/11/77	GEN. ELECTRIC	GESCO	TEB 111020	1
NS-31485	2/10/86	GOULD I-T-E	ECK SUPPLY	EF3-B030	5
NS-129833	4/23/87	HEINEMAN	GAMMAMETRICS	JA2-A3-A	2
ET-16481	10/3/86	HEINEMAN	WESTINGHOUSE	AM1	1
NS-97202	3/2/77	WESTINGHOUSE	SOLID STATE	63E4866	1
NS-97202	3/2/77	WESTINGHOUSE	SOLID STATE	JA2200W	1
NS-97202	3/2/77	HEINEMAN	SOLID STATE	CJA-G3-U	1
NS-39296	6/16/80	WESTINGHOUSE	STEARNS/ROGER	FB-3100	1
NS-11799	1/31/85	WESTINGHOUSE	WESTCO	FB-3100	1
NS-09527	6/25/84	WESTINGHOUSE	WESTCO	EHB-3010	2
NS-09527	6/25/84	WESTINGHOUSE	WESTCO	EHB-3015	2
NS-12149	3/11/85	WESTINGHOUSE	WESTCO	FB-3040	3
NS-33430	7/30/86	GEN. ELECTRIC	GESCO	THED136070	1
NS-06139	4/12/83	GEN. ELECTRIC	GRAYBAR	THQB22020	4
NS-57028	2/4/81	GEN. ELECTRIC	GRAYBAR	THED126050	2
CNS113426	12/9/86	GEN. ELECTRIC	GESCO	THED124070WL	1
NS-33484	8/2/86	GEN. ELECTRIC	GESCO	THED124070WL	1
NS-12006	2/27/85	GEN. ELECTRIC	ELEC. SUPPLRS	THJK426F000	1

NS-14526	3/17/85	GEN. ELECTRIC	GESCO	THJK426F00G	1
NS-14526	3/17/85	GEN. ELECTRIC	GESCO	TEB111020	2
NS-14526	3/17/85	GEN. ELECTRIC	GESCO	TEB111070	2
NS-10435	9/10/84	WESTINGHOUSE	WESTCO	EHB-3020	4
NS-11143	11/24/84	WESTINGHOUSE	WESTCO	EHB-3020	2
NS-33255	4/9/80	WESTINGHOUSE	WESTCO	EHB-3020	1
NS-33255	4/9/80	WESTINGHOUSE	WESTCO	EHB-2015	1
NS-162885	12/10/87	WESTINGHOUSE	WESTCO	EHD-2015	1
NS-32535	5/2/86	GEN. ELECTRIC	GESCO	TEB-111015	1
NS-82795	4/25/79	GEN. ELECTRIC	GESCO	TED-134100	1
NS-24527	5/25/82	GEN. ELECTRIC	ELEC. EQ. CO.	TEB-111050	1
NS-09434	6/14/83	GEN. ELECTRIC	GRAYBAR	THED136070	1
NS-29616	7/7/82	GEN. ELECTRIC	GRAYBAR	THQB1115	3
NS-69647	6/17/81	GEN. ELECTRIC	GESCO	TEB122090	1
TOTAL NON TRACEABLE					61