



**UNION ELECTRIC COMPANY**

1901 Gratiot Street, St. Louis

Donald F. Schnell  
Vice President

December 27, 1984

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Denton:

ULNRC-1002

DOCKET NUMBER 50-483  
UNION ELECTRIC COMPANY  
CALLAWAY PLANT, UNIT 1  
GENERIC LETTER 83-28

- References:
1. ULNRC-829 dated 5-21-84, same subject
  2. ULNRC-763 dated 3-12-84, same subject
  3. ULNRC-687 dated 11-18-83, same subject
  4. Youngblood to Schnell letter dated 7-18-84, Review of Design for Automatic Shunt Trip for Scram Breakers - Callaway Plant, Unit 1

Reference one transmitted Union Electric's approved implementation schedule associated with the provisions of Generic Letter 83-28. The attachment provides additional information regarding those Staff positions not completely addressed. Given the information in the attachment and in references one through three, the remaining actions to be implemented are those associated with the non-NSSS vendor interface program (item 2.2). This program will be fully implemented by September 1985.

Very truly yours,

for Donald F. Schnell

GGY/lw

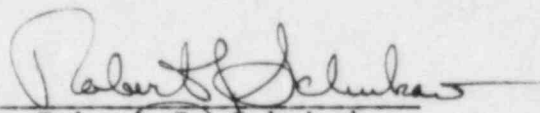
Attachment: Generic Letter 83-28 Responses

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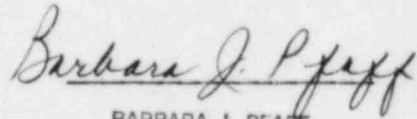
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STATE OF MISSOURI )  
 ) S S  
CITY OF St. LOUIS )

Robert J. Schukai, of lawful age, being first duly sworn upon oath says that he is General Manager-Engineering (Nuclear) for Union Electric Company; that he has read the foregoing document and knows the content thereof; that he has executed the same for and on behalf of said company with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By   
Robert J. Schukai  
General Manager-Engineering  
Nuclear

SUBSCRIBED and sworn to before me this 27<sup>th</sup> day of December, 1984.

  
BARBARA J. PFAFF  
NOTARY PUBLIC, STATE OF MISSOURI  
MY COMMISSION EXPIRES APRIL 22, 1985  
ST. LOUIS COUNTY

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## Generic Letter 83-28 Responses

- 1.1 Our Reactor Trip Review Program, as discussed in references one and two, has been fully implemented.
- 1.2 The computer systems providing post-trip review data are in place and functional. Refer to our discussion given in reference two.
- 2.1 The Callaway Q-List and NSSS vendor (Westinghouse) interface programs have been fully implemented. Refer to our discussion given in reference three.
- 2.2 Our non-NSSS vendor interface program will follow the recommendations of the NUTAC report, "Vendor Equipment Technical Information Program," issued in March 1984. This program will be fully implemented by September 1985. Refer to our discussions given in references two and three which address the balance of item 2.2.
- 3.1/3.2 Administrative procedures are in place which ensure that post-maintenance testing is performed as required and that appropriate guidance is included in maintenance procedures. Refer to our discussions given in references one and three.
- 4.1 Modified Undervoltage Trip Attachments (UVTA's) have been installed on all reactor trip (main) and bypass breakers.
- 4.2.1 The Westinghouse Owner's Group (WOG) compilation of maintenance information for the reactor trip switchgear was issued on October 18, 1984. This information has been incorporated into Preventive Maintenance Procedure MSE-SB-QSC01. This maintenance program now includes periodic verification of UVTA drop-out voltage, Shunt Trip Attachment (STA) operability under degraded voltage conditions (76 VDC vs. 125 VDC design), and UVTA trip force (i.e., available force) and breaker load (i.e., required force). Refer to our discussion given in reference one.
- 4.2.2 The following parameters affecting operation of the reactor trip switchgear and measured periodically per the surveillance procedure discussed under item 4.2.1 are trended to forecast degradation of operability:

- (a) insulation resistance
- (b) contact clearances
- (c) UVTA drop-out voltage
- (d) UVTA trip force and breaker load
- (e) automatic shunt trip response time.

The responsible maintenance engineer reviews completed surveillances and accumulates pertinent data. This data is trended to ensure that values of the above parameters are within acceptable bounds for operation. Pre-determined action levels are set to ensure that operation remains within these bounds. If trending indicates equipment degradation, additional attention will be focused on the component in question. This attention may manifest itself in decreased surveillance intervals, supplemental maintenance, or component replacement, dependent on the nature and severity of the degradation.

4.2.3/4.2.4 The WOG life cycle and qualification test programs have been completed. The results of these programs are applicable to Callaway and document the seismic qualification of our UVTA's and STA's. Consistent with the results of these programs, the service life for the UVTA's is 1250 operations. This life has been included in surveillance procedure MSE-SB-QS001 discussed under item 4.2.1. No service life was assigned to the STA's. STA replacement is required only if the degraded voltage test discussed under item 4.2.1 results in unsatisfactory performance (i.e., if the breaker does not trip). No other qualification contingencies resulted from the WOG programs.

4.3 The automatic shunt trip panel, qualified shunt trip coils, and safety-related STA's have been installed and are functional. Seismic qualification of the STA has been successfully completed as discussed above. Technical Specification changes per reference four have been initiated and will be submitted under separate cover. No changes are required to ensure manual reactor trip switch testing as this is already covered by Technical Specification 4.3.1.1-1. This manual trip TADOT is performed prior to restart following each refueling outage. Refer to our automatic shunt trip design discussion given in reference two and the Staff's evaluation given in reference four.

4.4 This item is not applicable to Callaway.

4.5 Refer to the discussions under item 4.3 above and those given in references two and three.