



Westinghouse
Electric Corporation

Water Reactor
Divisions

Box 355
Pittsburgh Pennsylvania 15230

NS-EPR-2877

January 17, 1984

Mr. Richard DeYoung, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland 20014

Dear Mr. DeYoung:

The subject of my August 6, 1982 letter to you (NS-EPR-2638) was the potential undetectable failure of a test switch in the Westinghouse Solid State Protection System (SSPS) which could affect Safeguards Actuation. A minor revision to test procedures was made to assure that a failure could not go undetected. No design changes were necessary to resolve safety concerns. Nevertheless, consideration of changes was initiated in the interest of prudent engineering.

This review is complete. A minor wiring change has been finalized by Westinghouse and is being forwarded to all affected plants. The change will assure that switch failure is easily detectable and will make revision of test procedures unnecessary.

Attachments 1, 2, and 3 are simplified diagrams of the changes including test sequence descriptions. All Westinghouse SSPS plants to which field change notices are being forwarded are relisted in Attachment 4.

For additional information please contact my cognizant staff manager, Mr. Clarence Draughon, 412-374-5761.

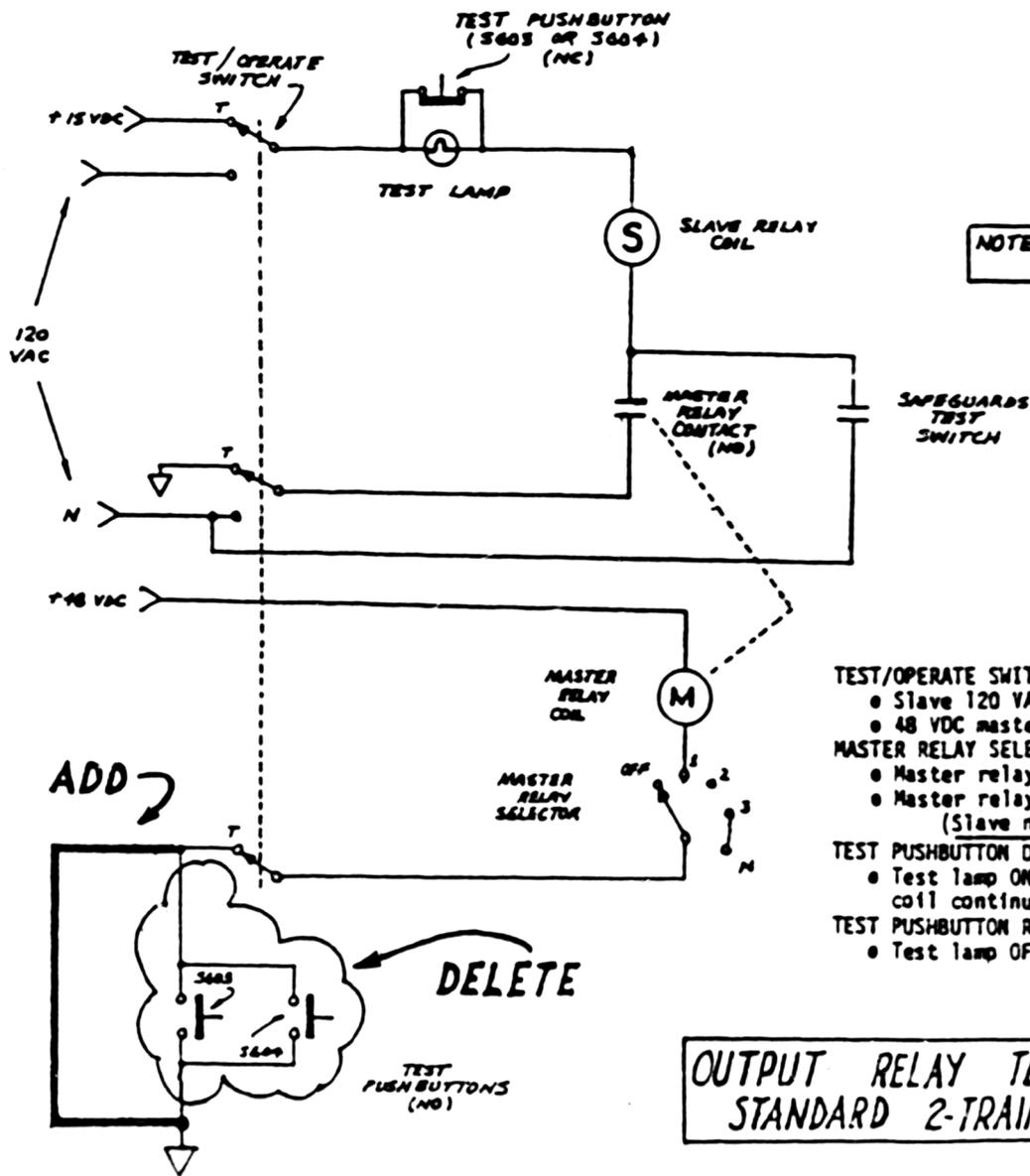
Very truly yours,
WESTINGHOUSE ELECTRIC CORPORATION

E. P. Rahe, Manager
Nuclear Safety Department

FWM/KEG

Attachments

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PDR TOPRP EMV ST
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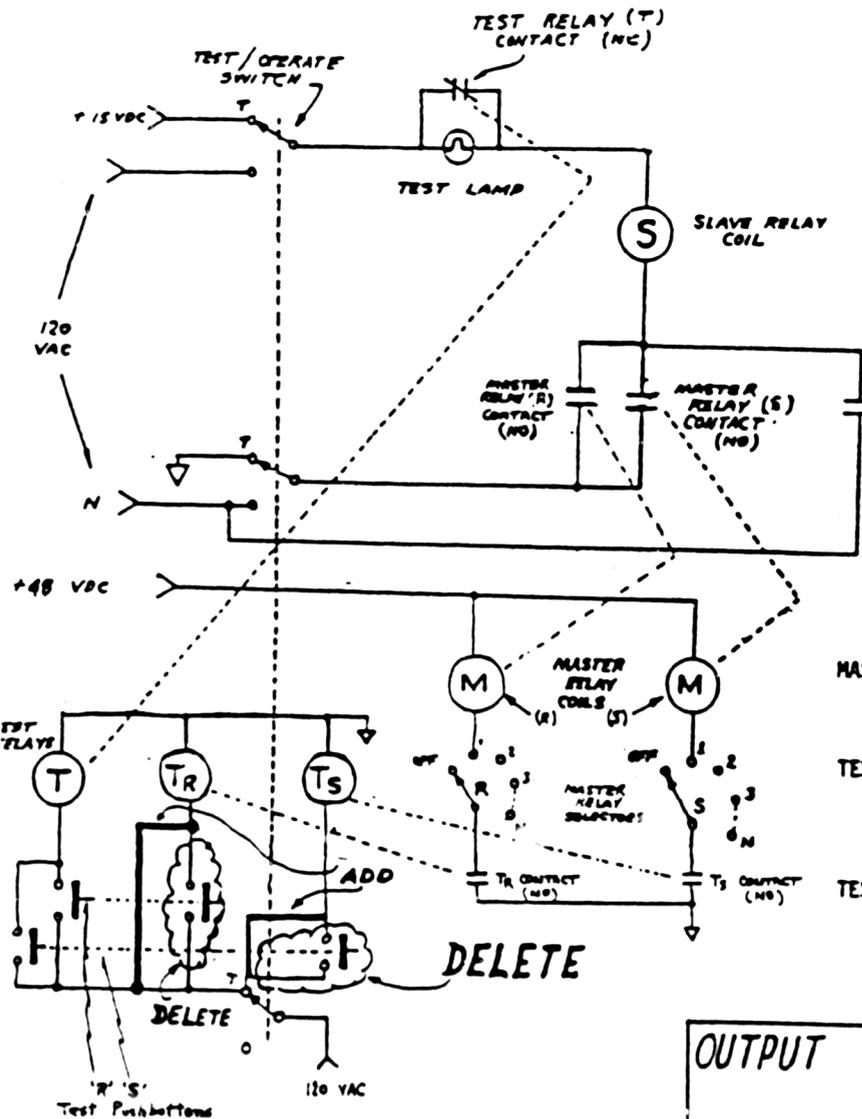


NOTE: MODE SELECTOR SWITCH IS SHOWN IN TEST POSITION

OPERATION

- TEST/OPERATE SWITCH TO TEST
- Slave 120 VAC reduced to 15 VDC
 - 48 VDC master relay ground returned
- MASTER RELAY SELECTOR SWITCH TO RELAY BEING TESTED
- Master relay energizes
 - Master relay contacts close 15 VDC to slave (Slave not energized on 15 VDC)
- TEST PUSHBUTTON DEPRESSED
- Test lamp ON confirms circuit and slave relay coil continuity.
- TEST PUSHBUTTON RELEASED
- Test lamp OFF confirms test lamp shunted

OUTPUT RELAY TEST CIRCUIT
STANDARD 2-TRAIN SSPS



NOTE: MODE SELECTOR SWITCH IS SHOWN IN TEST POSITION

OPERATION

- TEST / OPERATE SWITCH TO TEST
 - Slave 120 VAC reduced to 15 VDC
 - Slave relays ground returned
 - Test relays T_R & T_S energized
- MASTER RELAY SELECTOR SWITCH TO RELAY BEING TESTED
 - Master relay energizes
 - Master relay contacts close 15 VDC to slave (Slave not energized on 15 VDC)
- TEST PUSHBUTTON DEPRESSED
 - Test relay energizes
 - Test relay contacts open
 - Test lamp ON confirms circuit and slave relay coil continuity
- TEST PUSHBUTTON RELEASED
 - Test relay de-energized
 - Test relay contacts close
 - Test lamp OFF confirms test lamp shunted

OUTPUT RELAY TEST CIRCUIT
3-TRAIN SSPS

ATTACHMENT 4

APPLICABLE DOMESTIC AND INTERNATIONAL PLANTS

PLANTS WITH STANDARD 2-TRAIN SSPS

- Salem 1* and 2*
- Cook 1* and 2*
- + Ringhals 2*, 3, and 4
- Farley 1* and 2*
- Beaver Valley 1* and 2
- Diablo Canyon 1 and 2
- Trojan*
- + Angra 1*
- Byron 1 and 2
- Braidwood 1 and 2
- Marble Hill 1 and 2
- Sequoyah 1* and 2*
- Watts Bar 1 and 2
- + Almaraz 1* and 2*
- + Lemoniz 1 and 2
- + Asco 1* and 2
- Virgi. Summer*
- + Ohi 1* and 2*
- McGuire 1* and 2
- Catawba 1 and 2

PLANTS WITH "NEW" 2-TRAIN SSPS

- Millstone 3
- Seabrook 1 and 2
- Comanche Peak 1 and 2
- Wolfcreek 1
- Callaway 1
- Shearon Harris 1 and 2
- + Krsko*
- + Ko-Ri 2*
- + Maanshan 1 and 2
- Vogtle 1 and 2
- + Korea 5, 6, 7, and 8
- + Vandelllos 2
- + Napot Point 1

PLANTS WITH 3-TRAIN SSPS

- South Texas 1 and 2

- * Operating Plant
- + International Plant