

601 Williams Boulevard ■ Richland, Washington 99352 ■ Tel: (509) 943-8200

Subject Work Order 3900-4000
Washington Public Power Supply System
Supply System Nuclear Project 2
10CFR Potential Reportable Condition 82-08
Responds to: NA

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URG

1982 SEP -7 PM 12:50

REGISTRY

Main Office
550 Kinderkamack Road
Oradell, New Jersey 07649
(201) 265-2000

September 2, 1982
ERGO-RO-82- 008
Response Required: NA

Mr. R. H. Engelken
U. S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94956

Dear Mr. Engelken:

This is to inform you of a condition we have deemed to be reportable under the guidelines set forth in 10CFR21.

The concern regards the ability of a safety-class breaker closing circuit to perform its function. The situation occurs due to the presence of a white indicating light in the circuit. Complete details are contained in the attached evaluation.

If you have any questions regarding this concern, please contact either A. T. Luksic (509) 943-8243 or S. N. Satpute (509) 377-2522, Ext. 4364.

Very truly yours,

W. G. Conn
Licensing Group Supervisor

WGC:ATL:jk

Attachments

cc: J. G. Tellefson - SS
L. Floyd - SS
R. T. Johnson - SS
B. A. Holmberg - SS
E. LeBlanc - Bechtel

8209220323 820902
PDR PT21 EECBURO
82 PDR

IE 19

4.16 kV Breaker DG 1.7 & DG 2-8
(82-08)

Description of Potential Defect or Noncompliance

It was discovered that breaker closing circuit availability white indicating lamp provides "seal in" circuit path for the (anti-pump) "Y" relay in the breaker close circuit. This situation prohibits any future closing of the breaker, without removal of the 125V DC control power. (Reference SPR-E-1521.)

Date and Method of Discovery

SPR review by Project QA: Reference WPBR-F-82-192, dated 8/18/82.

Analysis of Safety Implication

The above described circuit design was employed in diesel generator line breakers DG1-7 and DG2-8. Field inspection revealed following information:

1. Anti-pump "Y" relay has
 - . Pickup value of 51 milliamp
 - . Dropout value of 15 milliamp

2. White indicating light on
 - . Breaker DG1-7 has 1900 ohm series resistance
 - . Breaker DG2-8 has no series resistance.

Analysis of circuit shows that once the anti-pump relay is energized, it would stay energized through the white light, even though control switch "close contact" is open after breaker close operation. This action opens the permissive in the spring release coil (SR) hence, precludes the breaker closing action unless anti-pump relay is somehow de-energized.

Above scenario leads to the conclusion that once DG1-7/DG2-8 breaker is closed it cannot be reclosed on subsequent fault trip, thereby jeopardizing power availability at Safety busses SM-7 and SM-8.

Corrective Action Taken

Circuit configuration for breakers DG1-7 and DG2-8 was changed to utilize a normally closed stationary auxiliary switch contact 52/b in series with breaker availability white indicating light, thereby producing a reset function in the anti-pump relay "Y" coil once breaker is closed. (Reference PED 218-E-A102.)

Other Facilities Affected

This deficiency is of such a nature that it would have been discovered during startup testing of a plant and could not be in any operating plant.

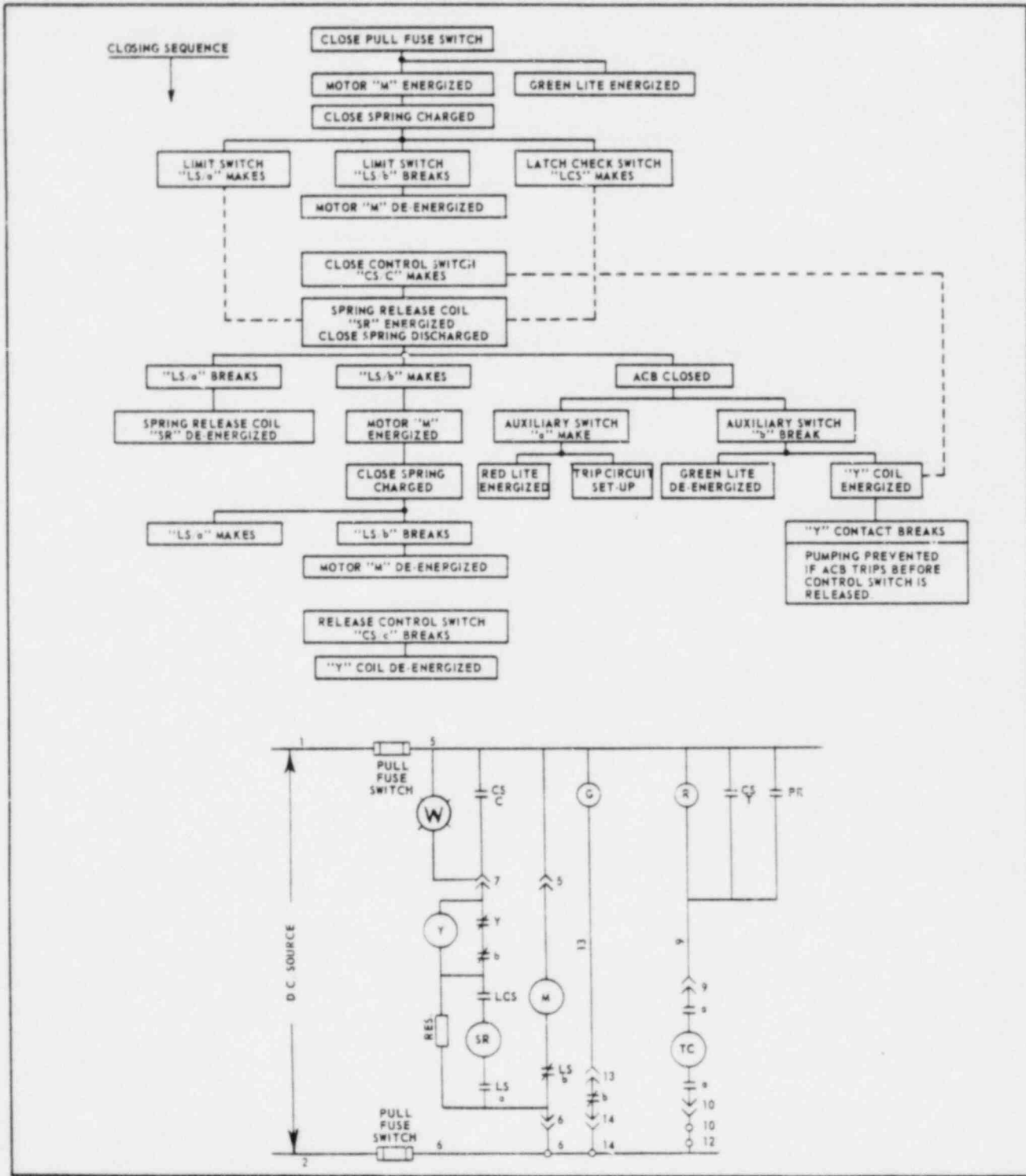


Fig. 44. Stored Energy Breaker with DC Control and DC Shunt Trip

PART 21 REPORT LOG SHEET

1. Subject of Report - Potential to jeopardize power availability because of break circuit to an Anti-pump "Y" relay
2. Date Verbal Notification Received - 8/30/82 Received By - R T Dods
3. Date Information Placed in Daily Report - 9/1/82
4. Name and Address of Person Providing Verbal Notification
 - a) Name - Andy Luksic
 - b) Company and Address - Burns & Roe
Richland, WA
 - c) Telephone No. - 509-943-8200
5. Description of Problem - _____

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6. Nuclear Facilities Affected - _____
WWP-2 Only
7. Date 5-day Written Report Due - 9/5/82 Date Received - 9/2/82
8. Mail Written Report to HQ's and Other Affected Regions
 - a) Date Mailed to HQ's (Bill Mills) - _____
 - b) Date Mailed to Other Regions - _____ Regions Mailed To - _____
9. Give Written Report to Each Region V Affected Principal Inspector
 - a) Date Given to Principal Inspector(s) - _____
 - b) Name(s) of Inspectors Given To - _____
10. Additional Comments - _____

