



Portland General Electric Company
 Trojan Nuclear Plant
 P.O. Box 439
 Rainier, Oregon 97048
 503/536-3713



May 19, 1981
 CPY-403-81

Mr. R. H. Engelken, Director
 Nuclear Regulatory Commission, Region V
 1990 North California Blvd.
 Walnut Creek, California 94596

Dear Sir:

In accordance with the Trojan Plant Operating License, Appendix A, US NRC Technical Specifications, Paragraph 6.9.1.9, attached is Licensee Event Report No. 81-09, concerning a situation where electrical power was lost to a number of components in one train of Engineered Safeguards Equipment..

Sincerely,

C. F. Yundt
 C. F. Yundt
 General Manager

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 CPY/RPS:na
 Attachments

c: LER Distribution List



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REPORTABLE OCCURRENCE

1. Report No.: 81-09
2. a. Report Date: May 19, 1981
b. Occurrence Date: April 20, 1981
3. Facility: Trojan Nuclear Plant, PO Box 439, Rainier, Oregon 97048
4. Identification of Occurrence:

Power to Motor Control Center (MCC) B25 was lost when a worker shorted the bus to ground causing the feeder breaker to open. This MCC normally supplies certain Engineered Safeguards Feature (ESF) equipment. As a result, power to a number of ESF components in one train was lost for approximately one hour.

5. Conditions Prior to Occurrence:

The plant was operating in Mode 1 at 92% power.

6. Description of Occurrence:

A plant electrician was troubleshooting a problem with a service water booster pump breaker on MCC B25. Prior to beginning the work, the breaker had been opened and tagged in this position. The remainder of B25 was energized in order to supply other plant loads. Using a portable meter, the worker attempted to measure phase-to-ground voltage between the bus side of the supply breaker and the cubicle frame to test the operability of his meter.

The meter used was a multipurpose instrument and in this instance was set up to measure milliamps and not voltage. In this configuration there is continuity through the meter to ground. When the test probe was placed on the middle phase of the bus-side breaker terminal, an arc was drawn due to the continuity to ground through the meter. This in turn ionized the conductor material and caused a flashover to the other two phases, causing a phase-to-phase short.

The excessive currents drawn caused the feeder breaker to MCC B25 to trip open. As a result, power to a number of ESF components in Train "A" was lost. In addition, nonvital power to the feedwater regulating valves and feedwater pump controls were lost. This caused a reduction in feed to the steam generators and resulted in an automatic reactor trip on steam generator low level.

The electrician performing the work received first and second degree burns on his left hand, face and neck. He was hospitalized for several days but has fully recovered.

7. Designation of Apparent Cause of Occurrence:

The apparent cause of this event is personnel error. The worker had the meter set to the wrong function. This caused a short to ground and phase-to-phase faults which tripped the feeder breaker to the Motor Control Center.

8. Significance of Occurrence:

This event had no effect on either plant or public safety. The ESF System is designed to function effectively with a complete loss of electrical power to one train of equipment. In this case the alternate train was available for automatic actuation if required.

9. Corrective Action:

Electrical power was restored to the affected components within one hour. The damaged breaker was repaired and returned to service.

The continued use of the type of meter involved in this event will be evaluated to determine if an instrument is available that is less susceptible to personnel error.