

LER SUPPLEMENTAL INFORMATION

BFRO-50- 259 / 8050 Technical Specification Involved 3.3.c

Reported Under Technical Specification 6.7.2.b(3)

Date of Occurrence 6/24/80 Time of Occurrence 1731 Unit 1

Identification and Description of Occurrence:

Refer to detailed report attached.

Conditions Prior to Occurrence:

Unit 1 @ 0 MWe
Unit 2 @ 70% MWe
Unit 3 @ 99% MWe

Action specified in the Technical Specification Surveillance Requirements met
due to inoperable equipment. Describe.

Refer to detailed report attached.

Apparent Cause of Occurrence:

Refer to detailed report attached.

Analysis of Occurrence:

There was no danger to the public health or safety, no damage to the plant or
equipment, and no release of activity.

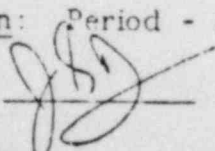
Corrective Action:

Switch was rewired correctly.

Failure Data:

None

*Retention: Period - Lifetime; Responsibility - Administrative Supervisor

*Revision: 

ATTACHMENT TO LER BFRO-50-259-80050

Turbine control fluid leaks at PS-47-144 on the #2 control valve resulted in a forced Unit 1 outage. Plant personnel used only mechanical control drawings to identify the switch function and improperly identified the switch as non-CSSC. Personnel worked at the control valve under poor lighting conditions and without the control normally required for CSSC maintenance (independent verification of functional test). This resulted in PS-47-144 being rewired incorrectly when normally unused switch #2 was inadvertently wired into the circuit switch number 1. The resulting wiring scheme consisted of the normally open and normally closed contacts of uncalibrated switch #2 being wired in parallel and then connected in series with the contacts of calibrated switch #1. This wiring scheme permitted the reactor protection system to fulfill its control valve fast closure scram function but introduced a brief electrical disruption to the parameter sensor relay each time switch #2 actuated.

Unit shutdowns resulted during each of the next two consecutive startup sequences during performance of turbine control valve fast closure S.I. 4.1.A-12.

On the first occasion during reopening of an adjacent control valve, brief electrical disruptions initiated by control fluid pressure fluctuations at PS-47-144 resulted in the de-energization of both channel B1 scram actuators. The A channel 1/2 scram due to closing of the adjacent control valve had not yet been reset and insertion of all control rods resulted.

On the second occasion during reopening of an adjacent control valve, a brief electrical disruption initiated by control fluid pressure fluctuations at PS-47-144 resulted in the de-energization of only one of the paralleled pair of B1 channel scram actuators. The A channel 1/2 scram due to closing of the adjacent control valve had not yet been reset and initial insertion of only RPS scram group 2 and 3 rods resulted. Prior to full insert stroke all rods stopped immediately after RPS channel A was reset by the operator.

Reactor protection system time delay to reset circuitry was not initiated because the brief electrical disruption de-energized only one of the paralleled pair of B1 channel scram actuators. Reactor protection system design is such that both B1 scram actuators would have to de-energize before initiating the ten second time delay to reset circuitry.