

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>Page</u>
3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION.....	3/4 7-12
3/4.7.3 COMPONENT COOLING WATER SYSTEM.....	3/4 7-13
3/4.7.4 SERVICE WATER SYSTEM.....	3/4 7-15
3/4.7.5 ULTIMATE HEAT SINK.....	3/4 7-17
3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM.....	3/4 7-18
3/4.7.7 SEALED SOURCE CONTAMINATION.....	3/7 7-21
3/4.7.8 FIRE SUPPRESSION SYSTEMS	
Fire Suppression Water System.....	3/4 7-23
Sprinkler Systems.....	3/4 7-27
Fire Hose Stations.....	3/4 7-29
3/4.7.9 PENETRATION FIRE BARRIERS.....	3/4 7-31
3/4.7.10 HYDRAULIC SNUBBERS.....	3/4 7-32
3/4.7.11 CONTROL BUILDING MODIFICATION CONNECTION BOLTS.....	3/4 7-37
<u>3/4.8 ELECTRICAL POWER SYSTEMS</u>	
3/4.8.1 A.C. SOURCES	
Operating.....	3/4 8-1
Shutdown.....	3/4 8-5
3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS	
A.C. Distribution - Operating.....	3/4 8-6
A.C. Distribution - Shutdown.....	3/4 8-7
D.C. Distribution - Operating.....	3/4 8-8
D.C. Distribution - Shutdown.....	3/4 8-10
3/4.8.3 UNDERVOLTAGE PROTECTION	
4.16 kV Emergency Bus Undervoltage Protection.....	3/4 8-11

80118047.2

ELECTRICAL POWER SYSTEM

3/4.8.3 UNDERVOLTAGE PROTECTION

4.16 kV EMERGENCY BUS UNDERVOLTAGE PROTECTION

LIMITING CONDITION FOR OPERATION

---

3.8.3.1 The 4.16 kV Emergency Bus Undervoltage Protection instrumentation shown in Table 3.8-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.8-2.

APPLICABILITY: As shown in Table 3.8-1.

ACTION:

- a. With a 4.16 kV Emergency Bus Undervoltage Protection instrumentation channel trip setpoint exceeding the value shown in Table 3.8-2, declare the channel inoperable and apply the applicable ACTION requirement of Table 3.8-1 until the channel is restored to OPERABLE status with the trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With a 4.16 kV Emergency Bus Undervoltage Protection instrumentation channel inoperable, take the ACTION shown in Table 3.8-1.

SURVEILLANCE REQUIREMENTS

---

4.8.3.1 Each 4.16 kV Emergency Bus Undervoltage Protection instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies shown in Table 4.8-1.

TABLE 3.8-1

4.16 kV EMERGENCY BUS UNDERVOLTAGE PROTECTION INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
a. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage)	4/Bus	2/Bus	3/Bus	1, 2, 3*	1
b. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)	4/Bus	2/Bus	3/Bus	1, 2, 3*	1

TROJAN-UNIT 1

3/4 8-12

TABLE 3.8-1 (Continued)

TABLE NOTATION

\*Required when ESF equipment is required to be operable.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided both of the following conditions are satisfied:

- a. The inoperable channel is placed in the tripped condition within one hour.
- b. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.8.3

TABLE 3.8-2

4.16 kV EMERGENCY BUS UNDERVOLTAGE PROTECTION INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
a. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage)	2560 volts with a 1.1 second time delay	2560 + 210 volts with a 1.1 ± 0.1 second time delay
b. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)	3850 volts with a 55 second time delay	3850 + 80 volts with a 55 ± 5 second time delay

TROJAN-UNIT 1

3/4 8-14

TABLE 4.8-1

4.16 kV EMERGENCY BUS UNDERVOLTAGE PROTECTION INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
a. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage)	R	M	1, 2, 3
b. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)	R	M	1, 2, 3

TROJAN-UNIT 1

3/4 8-15