

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System⁽¹⁾, and
- b. Three separate and independent standby diesel generators, each with a separate fuel tank containing a minimum volume of 60,500 gallons of fuel.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With a standby diesel generator inoperable, demonstrate the OPERABILITY of the above-required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.2) for each such standby diesel generator separately within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s). Restore the inoperable standby diesel generator to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.⁽¹²⁾
- c. With one offsite circuit of the above-required A.C. electrical power sources and one standby diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; and if the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2a.2) within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s); restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits to OPERABLE status within 72 hours and three standby diesel generators to OPERABLE status within 14 days from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.⁽¹²⁾

- d. With one standby diesel generator inoperable in addition to ACTION b. or c. above, verify that:
1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and
 2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE.

If these conditions are not satisfied within 24 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- e. With two of the above required offsite A.C. circuits inoperable, restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- f. With two or three of the above required standby diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least one standby diesel generator to OPERABLE status within 2 hours and at least two standby diesel generators to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least three standby diesel generators to OPERABLE status within 14 days from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.⁽¹²⁾

TABLE 4.8-1

DIESEL GENERATOR TEST SCHEDULE

(Not used)

SPECIFICATION NOTATIONS

- (1) Loss of one 13.8 kV Standby Bus to 4.16 kV ESF bus line constitutes loss of one offsite source. Loss of two 13.8 kV Standby busses to 4.16 kV ESF bus lines constitutes loss of two offsite sources.
- (2) All diesel generator starts for the purpose of these surveillances may be preceded by a prelube period.
- (3) A diesel generator start in less than or equal to 10 seconds (fast start) shall be performed every 184 days. All other diesel generator starts for the purpose of this surveillance may be modified starts involving reduced fuel (load limit) and/or idling and gradual acceleration to synchronous speed.
- (4) Generator loading may be accomplished in accordance with vendor recommendations, including a warmup period prior to loading.
- (5) The diesel generator start for this surveillance may be a modified start (see SR 4.8.1.1.2a.2)).
- (6) Momentary transients outside this load range due to changing conditions on the grid shall not invalidate the test.
- (7) If Specification 4.8.1.1.2a.2) is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Instead, the standby diesel generator may be operated at 5000-5500 kW for a minimum of 2 hours or until operating temperature has stabilized.
- (8) (Not used)
- (9) (Not used)
- (10) This test may be performed during power operation provided that the other two diesel generators are operable.
- (11) Credit may be taken for events that satisfy any of these Surveillance Requirements.
- (12) For the Unit 2 Train B standby diesel generator (SDG 22) failure of December 9, 2003, restore the inoperable standby diesel generator to OPERABLE status within 21 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.