

LIMITING CONDITIONS FOR OPERATION

3.9 AUXILIARY ELECTRICAL SYSTEM

Applicability:

Applies to the auxiliary electrical power system.

Objective:

To assure an adequate supply of electrical power for operation of those systems required for safety.

Specification:

A. Auxiliary Electrical Equipment

1. The reactor shall not be made critical from a Cold Shutdown Condition unless all of the following conditions are satisfied:
  - a. Both off-site sources (345 KV and 69 KV) and the startup transformer and emergency transformer are available and capable of automatically supplying power to the 4160 Volt emergency buses 1F and 1G.
  - b. Both diesel generators shall be operable and there shall be a minimum of 48,000 gal. of diesel fuel in the fuel oil storage tanks.
  - c. The 4160V critical buses 1F and 1G and the 480V critical buses 1F and 1G are energized.
    1. The loss of voltage relays and their auxiliary relays are operable.
    2. The undervoltage relays and their auxiliary relays are operable.
  - d. The four unit 125V/250V batteries and their chargers shall be operable.
  - e. The power monitoring system for the inservice RFS MG set or alternate source shall be operable.

SURVEILLANCE REQUIREMENTS

4.9 AUXILIARY ELECTRICAL SYSTEM

Applicability:

Applies to the periodic testing requirements of the auxiliary electrical systems.

Objective:

Verify the operability of the auxiliary electrical system.

Specification:

A. Auxiliary Electrical Equipment

1. Emergency Buses Undervoltage Relays
  - a. Loss of voltage relays

Once every 18 months, loss of voltage on emergency buses is simulated to demonstrate the load shedding from emergency buses and the automatic start of diesel generators.
  - b. Undervoltage relays

Once every 18 months, low voltage on emergency buses is simulated to demonstrate disconnection of the emergency buses from the offsite power source. The under-voltage relays shall be calibrated once every 18 months.
2. Diesel Generators
  - a. Each diesel-generator shall be started manually and loaded to not less than 50% of rated load for no less than 2 hours once each month to demonstrate operational readiness.

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS

3.9.A

4.9.A.2 (cont'd)

During the monthly generator test the diesel generator starting air compressor shall be checked for operation and its ability to recharge air receivers. The operation of the diesel fuel oil transfer pumps and fuel oil day tank level switches shall be demonstrated, and the diesel starting time to reach rated voltage and frequency shall be logged.

- b. Once every 18 months the condition under which the diesel generator is required will be simulated and a test conducted to demonstrate that it will start and accept the emergency load within the specified time sequence. The results shall be logged.
- c. Specification 4.9.A.2.c deleted.
- d. Once a month the quantity of diesel fuel available shall be logged.
- e. Every three months and upon delivery a sample of diesel fuel shall be checked for quality and the results logged. The quality shall be within the acceptable limits specified in Table 1 of ASTM D975-1989a for Nos. 1D or 2D for those fuel oil properties directly related to engine performance.
- f. At least once per 18 months, during shutdown, each diesel generator shall be given an inspection in accordance with instructions based on the manufacturer's recommendations.

## 3. 125 VDC Unit Batteries

- a. Every week, the following parameters shall be verified. The actual values shall be measured and logged:
  - 1. The total battery terminal voltage on float charge is equal to or greater than 125 volts.
  - 2. The electrolyte level of each pilot cell is between the minimum and maximum level indication marks.