

3.9 AUXILIARY ELECTRICAL SYSTEMApplicability:

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

The reactor shall not be made critical from a Cold Shutdown Condition unless all of the following conditions are satisfied:

1. Both off-site sources (345KV and 69KV) and the startup transformer and emergency transformer are available and capable of automatically supplying power to the 4160 Volt emergency buses 1F and 1G.
2. Both diesel generators shall be operable and there shall be a minimum of 45,000 gal. of diesel fuel in the fuel oil storage tanks.
3. The 4160V critical buses 1F and 1G and the 480V critical buses 1F and 1G are energized.
4. The four unit 125V/250V batteries and their chargers shall be operable.

4.9 AUXILIARY ELECTRICAL SYSTEMApplicability

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. Diesel Generators
 - a. The diesel-generators shall be started from a cold ambient condition and loaded to 2000 KW within 30 seconds a combined total of 298 times. Each test shall continue until rated engine temperatures are reached. The test shall be run 100 times with no more than one failure prior to loading fuel. After the first 100 tests are completed, the test shall be performed a minimum of 12 times per month until a combined total of 298 tests is reached. The acceptance criteria for the 298 tests will be that no more than 1 failure per 100 starts is observed. See notes 1 and 2.

After the test program of 298 starts each diesel-generator shall be started manually and loaded to not less than 35% of rated load for no less than 2 hours once each month to demonstrate operational readiness.

3.9.A

4.9.A (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.

Note 1: Failure to synchronize within 30 seconds will not be construed as a failure, but that particular test will be repeated.

Note 2: Factory tests, which duplicates the conditions of this test, will be included in the total number.

- b. Once per operating cycle 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. Once a month the quantity of diesel fuel available shall be logged.
 - d. Every three months and upon delivery a sample of diesel fuel shall be checked for quality. The quality shall be within the acceptable limits specified in Table 1 of ASTM D975-68 for Nos. 1D or 2D and logged.
 - e. Each diesel generator shall be given an annual inspection in accordance with instructions based on the manufacturer's recommendations.
2. Unit Batteries
 - a. Every week the specific gravity, the voltage and temperature of the pilot