

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS3.9 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 unless all of the following conditions are satisfied:

1. Two physically independent circuits between the off-site transmission network and the on-site Class 1E distribution system are operable.
2. The four diesel generators shall be operable and there shall be a minimum of 104,000 gal. of diesel fuel on site.
3. The 4kV emergency buses and the 480V emergency load centers are energized.
4. The four unit 125V 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. Each diesel generator shall be manually started and loaded once each month to demonstrate operational readiness. The test shall continue for at least a one hour period at rated load.

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 shall be demonstrated, and the diesel starting time to reach rated voltage and frequency shall be logged.

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS3.9.B Operation with Inoperable
Equipment

4.9.B

Whenever the reactor is in Run Mode or Startup Mode with the reactor not in a Cold Condition, the availability of electric power shall be as specified in 3.9.A, except as follows:

1. With one of the two independent off-site circuits required by Specification 3.9.A.1 inoperable, continued reactor operation is permissible for seven days. During this period, the four diesel generators and associated emergency buses must be demonstrated to be operable.
2. With two independent off-site circuits required by Specification 3.9.A.1 inoperable, continued operation is permissible, provided the four diesel generators and associated emergency buses are operable, all core and containment cooling systems are operable and reactor power level is reduced to 25% of the design.

3.9 BASES

The general objective of this Specification is to assure an adequate source of electrical power to operate the auxiliaries during plant operation, to operate facilities to cool and lubricate the plant during shutdown, and to operate the engineered safeguards following the accident. Two independent power sources from the off-site transmission network and the diesel generators are available. One off-site source is provided through the 13.2 kV startup regulating transformer switchgear No. 3 supplied from either the No. 343 startup transformer or the startup and emergency auxiliary regulating transformer No. 3. The other off-site source is provided through the 13.2 kV startup transformer switchgear No. 2 supplied from the startup and emergency auxiliary transformer No. 2. The two off-site sources are connected to the on-site Class 1E distribution system (which begins with the 4kV emergency buses) by physically independent circuits. The dc supply is required for switchgear and engineered safety feature systems. Specification 3.9.A states the required availability of ac and dc power; i.e., active off-site ac sources and the required amount of on-site ac and dc sources. The diesel fuel supply consists of four (4) 35,000 gallon tanks. A battery charger is supplied with each of the 125-Volt batteries.

The No. 2, No. 3 and No. 343 startup transformers and unit auxiliary transformers are each sized to carry 100% of the auxiliary load. If one of the off-site power circuits becomes inoperable, the unit can continue to operate since the unit auxiliary transformer is in service, the other off-site power circuit is available, and the required number of diesel generators is operational.

If both off-site power circuits are inoperable, the reactor power level must be reduced to a value whereby the units can safely reject the load and continue to supply auxiliary electric power to the station.

In the normal mode of operation, the No. 2 startup transformer and either the No. 3 or No. 343 startup transformer are energized and four diesel generators are operable. One diesel generator may be allowed out-of-service based on the availability of power from the startup transformer and the fact that three diesel generators carry sufficient engineered safeguards equipment to cover all breaks. With one off-site power circuit and one diesel generator out-of-service, the off-site transmission line corresponding to the operable off-site power circuit must be available. Upon the loss of one on-site and one off-site power source, power would be available from the other immediate off-site power source and the three operable on-site diesels to carry sufficient engineered safeguards equipment to cover all breaks. In addition to these two power sources, removal of the Isolated Phase Bus "quick" disconnect links would allow backfeed of power through the main transformer to the unit auxiliary transformer and provide power to carry the full station auxiliary load. The time required to perform this operation is comparable to the time the reactor could remain on RCIC operation before controlled depressurization need be initiated.