

BASES:

3.9

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 an accident. There are three sources of a-c electrical energy available; namely, the startup transformer, the diesel generators and the shutdown transformer. The d-c supply is required for switchgear and engineered safety feature systems. Specification 3.9.A states the required availability of a-c and d-c power; i.e., an active off-site a-c source, a back-up source of off-site a-c power and the maximum amount of on-site a-c and d-c sources.

The diesel fuel supply consists of two (2) 25,000 gallon tanks. Level instrumentation provides operators the information necessary to ensure a minimum supply of 19,800 gallons in each tank.

Auxiliary power for PNPS is supplied from two sources; either the unit auxiliary transformer or the startup transformer. Both of these transformers are sized to carry 100% of the auxiliary load. If the startup transformer is lost, the unit can continue to operate since the unit auxiliary transformer is in service, the shutdown transformer is available, and both diesel generators are operational.

If the startup and shutdown transformers are both lost, the reactor power level must be reduced to a value whereby the unit could safely reject the load and continue to supply auxiliary electric power to the station.

In the normal mode of operation, the startup transformer is energized, two diesel generators and the shutdown transformer are operable. One diesel generator may be allowed out of service based on the availability of power from the startup transformer, the shutdown transformer and the fact that one diesel generator carries sufficient engineered safeguards equipment to cover all breaks. With the shutdown transformer and one diesel generator out of service, both 345kV supply lines must be available for the startup transformer.

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 one operable on-site diesel to carry sufficient engineered safeguards equipment to cover all breaks. In addition to the two power sources, removal of the Isolated Phase Bus flexible connectors 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.

A battery charger is supplied with each of the 125 and 250 volt batteries and, in addition, (1) a 125 volt shared back-up battery charger is supplied which