

MONITORING SYSTEM

DESIGN INFORMATION

1. Submit detailed drawings of the proposed design modification to the monitoring system for the RPS power supplies (MGs and alternate source). The drawings should include component ratings, and schematic and wiring diagrams.
2. Submit a current revision of the electrical one-line diagram of the on-site distribution system and a schematic/elementary diagram that includes the RPS power distribution buses.
3. Provide justification that proposed time delays, if any, will not result in damage to RPS system components or affect the performance of required safety functions.
4. Provide justification that the design modification and components will meet the requirements of GDC 2 and GDC 21 of 10 CFR Part 50, Appendix A.
5. Specify monitoring system over-voltage, under-voltage, and under-frequency trip setpoints.
6. Confirm that selected setpoints with time delays are based on the measured terminal voltages on the RPS components including scram pilot solenoid valves and will ensure rated voltage and frequency on the terminals of each of these components.

ELECTRICAL POWER SYSTEMS

REACTOR PROTECTION SYSTEM ELECTRIC POWER MONITORING

LIMITING CONDITION FOR OPERATION

3.8.4.4 Two RPS electric power monitoring channels for each inservice RPS MG set or alternate source shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one RPS electric power monitoring channel for an inservice RPS MG set or alternate power supply inoperable, restore the inoperable channel to OPERABLE status within 72 hours or remove the associated RPS MG set or alternate power supply from service.
- b. With both RPS electric power monitoring channels for an inservice RPS MG set or alternate power supply inoperable, restore at least one to OPERABLE status within 30 minutes or remove the associated RPS MG set or alternate power supply from service.

SURVEILLANCE REQUIREMENTS

4.8.4.4 The above specified RPS power monitoring system instrumentation shall be determined OPERABLE:

- a. At least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST, and
- b. At least once per 18 months by demonstrating the OPERABILITY of over-voltage, under-voltage and under-frequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic and output circuit breakers and verifying the following setpoints:
 1. Over-voltage \leq (132) VAC,
 2. Under-voltage \geq (108) VAC, and
 3. Under-frequency \geq (57) Hz.