

ELECTRICAL POWER SYSTEMS

SHUTDOWN

LIMITING CONDITION FOR OPERATION

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3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One circuit between the offsite transmission network and the onsite Class 1E distribution system (vital bus system), and
- b. Two separate and independent diesel generators with:
 - 1. Separate day tanks containing a minimum volume of 130 gallons of fuel, and
 - 2. A common fuel storage system containing a minimum volume of 23,000 gallons of fuel, and
 - 3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes until the minimum required A.C. electrical power sources are restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

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4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1, 4.8.1.1.2, 4.8.1.1.3 (except for requirement 4.8.1.1.3.a.2) and 4.8.1.1.4.

← INSERT 1

BASES

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3/4.8.1 and 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility, and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR Part 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least two independent sets of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of one onsite A.C. source.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are based upon the recommendations of Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," March 10, 1971, and Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977.

For the purposes of establishing initial conditions for surveillance testing, "ambient conditions" mean that the diesel lube oil temperature is 120 ± 20 degrees F. The minimum lube oil temperature for an OPERABLE diesel is 100 degrees F. Lube oil heaters are designed to maintain the oil temperature at approximately 120 degrees F.

INSERT 2 \longrightarrow
3/4.8.3 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The surveillance frequency applicable to molded case circuit breakers and lower voltage circuit breakers provides assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of molded case and lower voltage circuit breakers. Each manufacturer's molded

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 - 3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

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← INSERT 1
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BASES

3/4.8.1 AND 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility, and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR Part 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least two independent sets of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of one onsite A.C. source.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods, and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

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INSERT 2 →

3/4.8.3 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

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ATTACHMENT 3

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SURVEILLANCE CROSS REFERENCE

NUREG 1431	SALEM	DESCRIPTION
SR 3.8.1.1	4.8.1.1.1.a	Breaker Alignment
SR 3.8.1.2 SR 3.8.1.3 SR 3.8.1.7	4.8.1.1.2.a.2	DG Start One Hour Run
SR 3.8.1.4	4.8.1.1.3.a.1	Day Tank Level
SR 3.8.1.5	4.8.1.1.2.b	Day Tank Water Accumulation
SR 3.8.1.6	4.8.1.1.3.a.2	Fuel Oil Transfer
SR 3.8.1.7	4.8.1.1.2.c	Six month DG run
SR 3.8.1.8	4.8.1.1.1.b	Transfer of AC Power Sources
SR 3.8.1.9 SR 3.8.1.10	4.8.1.1.2.d.2	Load Rejection
SR 3.8.1.11	4.8.1.1.2.d.3	Loss of Offsite power
SR 3.8.1.12	4.8.1.1.2.d.4	ESF Start
SR 3.8.1.13 SR 3.8.1.16 SR 3.8.1.19	4.8.1.1.2.d.6	DG Auto Trip Bypass & ESF/LOOP Start
SR 3.8.1.14	4.8.1.1.2.d.7	24 hour Endurance Run
SR 3.8.1.15	4.8.1.1.2.f	Hot Restart Test
SR 3.8.1.17	4.8.1.1.2.d.9	ESF Override
SR 3.8.1.20	4.8.1.1.2.e	Simultaneous Start
SR 3.8.1.18	NA at Salem	SEC Timing
None	4.8.1.1.2.d.1 4.8.1.1.2.d.8	DG Inspection Max Load Verification