ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E ~~D~~. Required containment atmosphere radioactivity monitor inoperable. AND Required containment air cooler condensate flow rate monitor inoperable.	E ~~D~~.1 Restore required containment atmosphere radioactivity monitor to OPERABLE status. OR E ~~D~~.2 Restore required containment air cooler condensate flow rate monitor to OPERABLE status.	30 days 30 days
F ~~E~~. Required Action and associated Completion Time not met.	F ~~E~~.1 Be in MODE 3. AND F ~~E~~.2 Be in MODE 5.	6 hours 36 hours
LCV-0603-E G ~~F~~. All required leakage detection systems ~~monitors~~ inoperable.	G ~~F~~.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.15.2 ~~1~~	Perform CHANNEL CHECK of the required containment atmosphere radioactivity monitor.	12 hours
19b SR 3.4.15.1	Perform CHANNEL CHECK of containment normal sumps level and reactor cavity sump level monitors.	12 hours

(continued)

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PDR ADOCK 05000424
P PDR

For the purpose of this Condition, the leakage detection systems consist of the three systems described below in items a, b and c, respectively:
a. the containment normal sumps level and reactor cavity sump monitors,
b. one containment atmosphere radioactivity monitor (gaseous or particulate); and
c. either the containment air cooler condensate flow rate or a containment atmosphere gaseous or particulate radioactivity monitoring system not taken credit for in item b.

BASES

ACTIONS

~~E~~F.1 and ~~E~~F.2 (continued)

required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

~~F~~G.1

With all required ~~monitors~~ leakage detection systems inoperable, no automatic means of monitoring leakage are available, and immediate plant shutdown in accordance with LCO 3.0.3 is required.

SURVEILLANCE REQUIREMENTS

SR 3.4.15.1 and SR 3.4.15.2

~~SR 3.4.15.1~~ These SRs require~~s~~ the performance of a CHANNEL CHECK of the required containment atmosphere radioactivity monitor(s) and containment sump monitors. The check gives reasonable confidence that the channel ~~is~~ are operating properly. The Frequency of 12 hours is based on instrument reliability and is reasonable for detecting off normal conditions.

SR 3.4.15.~~2~~3

SR 3.4.15.~~2~~3 requires the performance of a COT on the required containment atmosphere radioactivity monitor. The test ensures that the monitor can perform its function in the desired manner. The test verifies the alarm setpoint and relative accuracy of the instrument string. The Frequency of ~~31~~ 92 days considers instrument reliability, and operating experience has shown that it is proper for detecting degradation.

WOG-09 C4

SR 3.4.15.~~3~~4, [SR 3.4.15.~~4~~5, and SR 3.4.15.~~5~~6]

These SRs require the performance of a CHANNEL CALIBRATION for each of the RCS leakage detection instrumentation channels. The calibration verifies the accuracy of the instrument string, including the instruments located inside containment. The Frequency of [18] months is a typical refueling cycle and considers channel reliability. Again, operating experience has proven that this Frequency is acceptable.

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE (8b)		FREQUENCY
SR 3.8.1.~~14~~ 13	------NOTES------ 1. Momentary transients outside the kW and kVAR load ~~and power factor~~ ranges do not invalidate this test. ~~2. This Surveillance shall not be performed in MODE 1 or 2. However~~ (21) ~~3~~.2. Credit may be taken for unplanned events that satisfy this SR. ------------ (8b) Verify each DG ~~operating at a power factor ≤ [0.9]~~ operates for ≥ 24 hours while maintaining voltage ≤ 4330V: a. For ≥ ~~[~~2~~]~~ hours loaded ≥ ~~[5250]~~ 7600 kW and ≤ ~~[5500]~~ 7700 kW and operating as close as practicable to 3730 KVAR and b. For the remaining hours of the test loaded ≥ ~~[4500]~~ 6800 kW and ≤ ~~[5000]~~ 7000 kW and operating as close as practicable to 3390 kVAR. LCV-0603-E	BWOG-05-C1 ~~[~~18 months~~]~~
SR 3.8.1.~~15~~ 14	------NOTES------ 1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ ~~[~~2~~]~~ hours loaded ≥ ~~[4500]~~ 6800 kW and ≤ ~~[5000]~~ 7000 kW. Momentary transients outside of load range do not invalidate this test. 2. All DG starts may be preceded by an engine prelube period. ------------ Verify each DG starts and achieves, in ≤ ~~[10]~~ 11.4 seconds, voltage ≥ ~~[3740]~~ 4025 V, and ≤ ~~[4500]~~ 4330 V and frequency ≥ ~~[~~58.8~~]~~ Hz and ≤ ~~[~~61.2~~]~~ Hz.	~~[~~18 months~~]~~

(continued)

LCV-0603-E

2. KVAR load as close as practicable to 3730 KVAR while loaded ≥ 7600 KW and ≤ 7700 KW and 3390 KVAR while loaded ≥ 6800 KW and ≤ 7000 KW for the remaining hours of the test, while maintaining voltage ≤ 4330 V

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.1.~~14~~ 13 (continued)

possible, testing must be performed using ~~a power factor of ≤ [0.9]~~. This ~~power factor~~ KVAR load is chosen to be representative of the actual design basis inductive loading that the DG would experience. The load band is provided to avoid routine overloading of the DG. Routine overloading may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain DG OPERABILITY.

The voltage limit of 4330 V is required to prevent operation of any loads at or above the maximum design voltage.

TSC

The ~~[18 month]~~ Frequency is consistent with the recommendations of Regulatory Guide 1.108 (Ref. 9), paragraph 2.a.(3), takes into consideration unit conditions required to perform the Surveillance, and is intended to be consistent with expected fuel cycle lengths.

This Surveillance is modified by ~~three~~ two Notes. Note 1 states that momentary transients due to changing bus loads do not invalidate this test. Similarly, momentary ~~power factor~~ KVAR load transients above the ~~power factor~~ limit will not invalidate the test. ~~The reason for Note 2 is that during operation with the reactor critical, performance of this Surveillance could cause perturbations to the electrical distribution systems that could challenge continued steady state operation and, as a result, unit safety systems.~~ Note ~~3~~ 2 acknowledges that credit may be taken for unplanned events that satisfy this SR. BWR-25-1 INSERT

TSC

TSC

SR 3.8.1.~~15~~ 14

This Surveillance demonstrates that the diesel engine can restart from a hot condition, such as subsequent to shutdown from normal Surveillances, and achieve the required voltage and frequency within ~~[10]~~ 11.4 seconds. The ~~[10]~~ second time is derived from the requirements of the accident analysis to respond to a design basis large break LOCA. The ~~[18 month]~~ Frequency is consistent with the recommendations of Regulatory Guide 1.108 (Ref. 9), paragraph 2.a.(5).

This SR is modified by two Notes. Note 1 ensures that the test is performed with the diesel sufficiently hot. The load band is provided to avoid routine overloading of the DG. Routine overloads may result in more frequent teardown inspections in accordance with vendor recommendations in

(continued)

(TSC)

BASES

ACTIONS (continued)

A.2

A reduction of the Power Range Neutron Flux — High trip setpoints by ≥ 1% of RTP for each 1% by which $F_Q^C(Z)$ exceeds its steady state limit, is a conservative action for protection against the consequences of severe transients with unanalyzed power distributions. The Completion Time of 8 hours is sufficient considering the small likelihood of a severe transient in this time period and the preceding prompt reduction in THERMAL POWER in accordance with Required Action A.1. LCV-0603-E

A.3

Reduction in the Overpower ΔT trip setpoints (value of K_4) by ≥ 1% (in % RTP) for each 1% by which $F_Q^C(Z)$ exceeds its limit, is a conservative action for protection against the consequences of severe transients with unanalyzed power distributions. The Completion Time of 72 hours is sufficient considering the small likelihood of a severe transient in this time period, and the preceding prompt reduction in THERMAL POWER in accordance with Required Action A.1.

A.4

Verification that $F_Q^C(Z)$ has been restored to within its limit, by performing SR 3.2.1.1 prior to increasing THERMAL POWER above the limit imposed by Required Action A.1, ensures that core conditions during operation at higher power levels are consistent with safety analyses assumptions.

B.1

If it is found that ~~the maximum calculated value of~~ $F_Q(Z)$ ~~that can occur during normal maneuvers, $F_Q^W(Z)$~~ transient limit, exceeds its ~~specified~~ transient limits, there exists a potential for $F_Q^C(Z)$ to become excessively high if a normal operational transient occurs. Reducing the AFD by ≥ 1% for each 1% by which $F_Q^C(Z)$ exceeds its transient limit within the allowed Completion Time of 2 hours, restricts the axial flux distribution such that even if a transient occurred, core peaking factors are not exceeded (Ref. 5). INSERT FOR REQUIRED ACTION B.1 BASES

(PSC)

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.3.4 (continued)

intended to reflect the lowest value at which the [five] starts can be accomplished. (PI-9060, PI 9061, PI-9064, PI-965) (PSE)

The 31 day Frequency takes into account the capacity, capability, redundancy, and diversity of the AC sources and other indications available in the control room, including alarms, to alert the operator to below normal air start pressure.

SR 3.8.3.5

Microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the fuel storage tanks once every [31] days eliminates the necessary environment for bacterial survival. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, and contaminated fuel oil, and from breakdown of the fuel oil by bacteria. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the watertight integrity of the fuel oil system. The Surveillance Frequencies are established by Regulatory Guide 1.137 (Ref. 2). This SR is for preventive maintenance. The presence of water does not necessarily represent failure of this SR, provided the accumulated water is removed during performance of the Surveillance.

[PSC — INSERT new SR 3.8.3.6]

SR 3.8.3.~~6~~ 7

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. ~~This SR also requires the performance of the ASME Code, Section XI (Ref. 8), examinations of the tanks.~~ [LCV-0603-E] To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.3.7 (continued)

soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR, provided that accumulated sediment is removed during performance of the Surveillance.

The SR is modified by a note that excepts the performance of this SR when the associated DG is required OPERABLE by LCO 3.8.2. This exception is consistent with the SR performance exceptions in LCO 3.8.2 for SRs that might impact the OPERABILITY of the DGs.

REFERENCES

1. FSAR, Section 9.5.4.2.
2. Regulatory Guide 1.137.
3. ANSI N195-1976, Appendix B.
4. FSAR, Chapter 6.
5. FSAR, Chapter 15.
6. ASTM Standards: D4057; D975; D4176; D1552; D2622; D2276-78. ~~Method A.~~ (WOG-13-11) (PSC)
7. ASTM Standards, D975, Table 1.
8. ~~ASME, Boiler and Pressure Vessel Code, Section XI.~~ Deleted (LCV-0603-E)
9. Southern Company Services Calculation number X4C2403V10, Emergency Diesel Generator Fuel Oil Storage Technical Specification Values.
10. Southern Company Services Calculation number X4C2403V11, Emergency Diesel Generator Lube oil Inventory Technical Specification Values.
11. Southern Company Services Calculation number X4C2403V09, Emergency Diesel Generator Starting Air Pressure Technical Specification Value.

INSERT 28
FOR CST LCO BASES
PAGE B 3.7- 34

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In order for a single CST to meet the LCO requirements stated above, design modifications are required. The design modifications are planned for each unit, during 1996, to allow alignment of the AFW pumps mini-flow lines to the CST to which the pump suction is aligned. Prior to the implementation of the design modification, LCO 3.7.6a shall be applicable. Prior to completion of the design modification the volume of water required to satisfy the safety analyses for a unit is 420,000 gallons. LCO 3.7.6a requires an unmodified unit to maintain both CSTs OPERABLE with a combined safety-related volume of ≥420,000 gallons. In addition, LCO 3.7.6a requires the CST that supplies the AFW pumps to contain a safety-related volume of ≥340,000 gallons. The volume specified for the CST supplying the AFW System is based on the need to ensure sufficient time exists for the operator action required to switch the AFW pump suction supply to the other CST. If the combined safety-related volume or the safety-related volume required for the AFW supply is not as specified, LCO 3.7.6a contains Actions to restore the volume(s) to within limit or to place the unit in a MODE where the CSTs are no longer required OPERABLE. LCO 3.7.6a is no longer required and may be deleted when both units have completed the required modifications.

5.5 Programs and Manuals (continued)

5.5.10 Secondary Water Chemistry Program

(7a) This program provides controls for monitoring secondary water chemistry to inhibit SG tube degradation ~~and low pressure turbine disc stress corrosion cracking~~. The program shall include:

a. Identification of a sampling schedule for the critical variables and control points for these variables;

b. Identification of the procedures used to measure the values of the critical variables;

(8) c. Identification of process sampling points; ~~which shall include monitoring the discharge of the condensate pumps for evidence of condenser in leakage~~;

d. Procedures for the recording and management of data;

e. Procedures defining corrective actions for all off control point chemistry conditions; and

f. A procedure identifying the authority responsible for the interpretation of the data and the sequence and timing of administrative events, which is required to initiate corrective action.

5.5.11 Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified ~~in [Regulatory Guide], and~~ in accordance with [Regulatory Guide 1.52, Revision 2, and ASME N510-~~1989~~ 1980, ~~and AG-1~~].

LCV-0603-E

a. Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass ≤ [0.05]% when tested in accordance with [Regulatory Guide 1.52, Revision 2, and ASME N510-~~1989~~] 1980 at the system flowrate specified below [± 10%].

ESF Ventilation System	Flowrate
~~[ ]~~ ~~[ ]~~	~~[ ]~~ ~~[ ]~~
Control Room Emergency Filtation System (CREFS)	19,000 CFM
Piping Penetration Area Filtration and Exhaust System (PPAFES)	15,500 CFM

(continued)

5.5 Programs and Manuals

5.5.11 Ventilation Filter Testing Program (VFTP) (continued)

9a

b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass ≤ [0.05]% when tested in accordance with [Regulatory Guide 1.52, Revision 2, and ASME N510-~~1989~~] 1980 at the system flowrate specified below [± 10%].

ESF Ventilation System	Flowrate
CREFS	19,000 CFM
PPAFES	15,500 CFM

LCV-0603-E

8a

c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in [Regulatory Guide 1.52, Revision 2], shows the methyl iodide penetration less than or equal to the value specified below when tested in accordance with [ASTM D3803-1989] at a temperature of ≤ [30°C] and greater than or equal to the relative humidity specified below.

ESF Ventilation System	Penetration	RH
CREFS	.2%	70%
PPAFES	10%	95%

~~Reviewer's Note: Allowable penetration = [100% - methyl iodide efficiency for charcoal credited in staff safety evaluation]/(safety factor).~~

~~Safety factor = [5] for systems with heaters.~~
~~= [7] for systems without heaters.~~

9

d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, ~~the prefilters, and~~ the charcoal adsorbers, and CREFS cooling coils is less than the value specified below when tested in accordance with [Regulatory Guide 1.52,

(continued)