NPF-11	NPF-18
3/4 1-9*	3/4 1-9
3/4 1-10	3/4 1-10
3/4 4-6*	3/4 4-7*
3/4 4-7	3/4 4-8
INSERT A	INSERT A
3/4 4-8	3/4 4-9
3/4 5-1*	3/4 5-1*
3/4 5-2*	3/4 5-2*
3/4 5-3	3/4 5-3
INSERT B	INSERT B
3/4 5-4*	3/4 5-4*
3/4 5-5	3/4 5-5
INSERT C	INSERT C
3/4 5-8*	3/4 5-8*
3/4 5-9	3/4 5-9
3/4 6-16*	3/4 6-19*
3/4 6-17	3/4 6-20
3/4 6-18	3/4 6-21
B 3/4 5-3	B 3/4 5-3
INSERT D	INSERT D

^{*} These pages are provided for information only.

REACTIVITY CONTROL SYSTEM

CONTROL ROD SCRAM ACCUMULATORS

[Information Only] No Changes

LIMITING CONDITION FOR OPERATION

3.1.3.5 All control rod scram accumulators shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 5°.

ACTION:

- a. In OPERATIONAL CONDITION 1 or 2:
 - 1. With one control rod scram accumulator inoperable:
 - a) Within 8 hours, either:
 - Restors the inoperable accumulator to OPERABLE status, or
 - Declare the control rod associated with the inoperable accumulator inoperable.
 - b) Otherwise, be in at least HOT SHUTDOWN within the next 12 hours.
 - With more than one control rod scram accumulator inoperable, declare the associated control rod inoperable and:
 - a) If the control rod associated with any inoperable scram accumulator is withdrawn, immediately verify that at least one CRD pump is operating by inserting at least one withdrawn control rod at least one notch by drive water pressure within the normal operating range or place the reactor mode switch in the Shutdown position.
 - b) Insert the inoperable control rods ard disarm the associated directional control valve either:
 - 1) Electrically, or
 - Hydraulically by closing the drive water and exhaust water isolation valves.

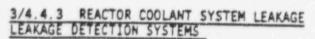
Otherwise, be in at least HOT SHUTDOWN within 12 hours.

- b. In OPERATIONAL CONDITION 5 with:
 - One withdrawn control rod with its associated scram accumulator inoperable, insert the affected control rod and disarm the associated directional control valves within 1 hour, either:
 - a) Electrically, or
 - Hydraulically by closing the drive water and exhaust water isolation valves.
 - 2. More than one withdrawn control rod with the associated scram accumulator inoperable or with no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position.

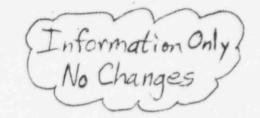
^{*}At least the accumulator associated with each withdrawn control rod. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

- 4.1.3.5 Each control rod scram accumulator shall be determined OPERABLE:
 - a. At least once per 7 days by verifying that the indicated pressure is greater than or equal to 940 psig unless the control rod is inserted and disarmed or scrammed.
 - b. At least once per 18 months by:
 - 1. Performance of a:
 - a) CHANNEL FUNCTIONAL TEST of the leak detectors, and
 - b) CHANNEL CALIBRATION of the pressure detectors, with the alarm setpoint > 940 psig an decreasing pressure.

REACTOR COOLANT SYSTEM



LIMITING CONDITION FOR OPERATION



- 3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:
 - The primary containment atmosphere particulate radioactivity monitoring system,
 - b. The primary containment sump flow monitoring system, and
 - c. Either the primary containment air coolers condensate flow rate morf of g system or the primary containment atmosphere gaseous rus. Tivity monitoring system.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

- 4.4.3.1 The reactor coolant system detection systems shall be demonstrated OPERABLE by:
 - a. Primary containment atmosphere particulate and gaseous monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.
 - b. Primary containment sump flow monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION TEST at least once per 18 months.*
 - c. Primary containment air coolers condensate flow rate monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

^{*}The specified 18 month interval may be waived for Cycle 1 provided the surveillance is performed during Refuel 1.

REACTOP COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

- 3.4.3.2 Reactor coolant system leakage shall be limited to:
 - MO PRESSURE BOUNDARY LEAKAGE.
 - b. 5 gpm UNIDENTIFIED LEAKAGE.
 - c. 25 gpm total leakage averaged over any 24 hour period.
 - d. I gpm leakage at a reactor coolant system pressure at 1000 ± 50 psig from any reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1.
 - e. 2 gpm increase in UNIDENTIFIED LEAKAGE within any 24 hour period.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- b. With any reactor coolant system leakage greater than the limits in b and/or c, above, reduce the leakage rate to within the limits within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With any reactor coolant system pressure isolation valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed valves, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- d. With one or more high/low pressure interface valve leakage pressure monitors inoperable, restore the inoperable monitor(s) to OPERABLE status within 7 days or verify the pressure to be less than the alarm setpoint at least once per 12 hours by local indication; restore the inoperable monitor(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 12 hours.
- e. With any reactor coolant system leakage greater than the limit in e, above, identify the source of leakage within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in CDLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

a. Monitoring the primary containment atmospheric particulate and gaseous radioactivity at least once per 12 hours,

LA SALLE - UNIT 1

TA) 31

* Technical Specification 4.0.2 does not apply

INSERT A

4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits on average once per 8 hours not to exceed 12 hours. *

SURVEILLANCE REQUIREMENTS (Continued)

- b. Monitoring the primary containment sump flow rate on average once per 8 hours not to exceed 12 hours,* and
- c. Monitoring the primary containment air coolers condensate flow rate at least once per 12 hours.
- 4.4.3.2.2 Each reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1 shall be demonstrated OPERABLE:
 - a. Pursuant to Specification 4.0.5, except that in lieu of any leakage testing required by Specification 4.0.5, each valve shall be demonstrated OPERABLE by verifying leakage to be within its limit:
 - 1. At least once per 18 months, and
 - Prior to returning the valve to service following maintenance, repair or replacement work on the valve which could affect its leakage rate.

The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 3.

- b. By demonstrating OPERABILITY of the high/low pressure interface valve leakage pressure monitors by performance of a:
 - 1. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
 - 2. CHANNEL CALIBRATION at least once per 18 months,

With the alarm setpoint for the:

- HPCS system < 100 psig.
- LPCS system ≤ 500 psig.
- 3. LPCI/shutdown cooling system < 400 psig.
- 4. RHR shutdown cooling < 190 psig.
- RCIC ≤ 90 psig.

Information Only No Changes

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ECCS - OPERATING

LIMITING CONDITION FOR OPERATION

3.5.1 ECCS divisions 1, 2 and 3 shall be OPERABLE with:

- a. ECCS division 1 consisting of:
 - The OPERABLE low pressure core spray (LPCS) system with a flow path capable of taking suction from the suppression chamber and transferring the water through the spray sparger to the reactor wessel.
 - The OPERABLE low pressure coolant injection (LPCI) subsystem "A"
 of the RHR system with a flow path capable of taking suction from
 the suppression chamber and transferring the water to the reactor
 vessel.
 - 3. At least 6 OPERABLER ADS valves.
- b. ECCS division 2 consisting of:
 - The OPERAGLE low pressure coolant injection (LPCI) subsystems
 ^oB^o and ^oC^o of the RHR system, each with a flow path capable of
 taking suction from the suppression chamber and transferring the
 water to the reactor vessel.
 - 2. At least 6 OPERABLERS ADS valves.
- ECCS division 3 consisting of the OPERABLE high pressure core spray (MPCS) system with a flow path capable of taking suction from the suppression chamber and transferring the water through the spray sparger to the reactor vessel.

APPLICABILITY: OPERATIONAL CONDITION 1, 200 and 30.

**See Specification 3.3.3 for trip system operatility.

"See Special Test Exception 3.10.6.

^{*}The ADS is not required to be OPERABLE when reactor steam dome pressure is less than or equal to 122 psig.

EMERGENCY CORE COOLING SYSTEMS

(Information Only) No changes

LIMITING CONDITION FOR OPERATION (Continued)

ACTION:

- a. For ECCS division 1, provided that ECCS divisions 2 and 3 are OPERABLE:
 - With the LPCS system inoperable, restore the inoperable LPCS system to OPERABLE status within 7 days.
 - With LPCI subsystem "A" inoperable, restore the inoperable LPCI subsystem "A" to OPERABLE status within 7 days.
 - With the LPCS system inoperable and LPCI subsystem "A" inoperable, restore at least the inoperable LPCI subsystem "A" or the inoperable LPCS system to OPERABLE status within 72 hours.
 - Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. For ECCS division 2, provided that ECCS divisions 1 and 3 are OPERABLE:
 - With either LPCI subsystem "B" or "C" inoperable, restore the inoperable LPCI subsystem "B" or "C" to OPERABLE status within 7 days.
 - With both LPCI subsystems "B" and "C" inoperable, restore at least the inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.
 - Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours*.
- c. For ECCS division 3, provided that ECCS divisions 1 and 2 and the RCIC system are OPERABLE:
 - With ECCS division 3 inoperable, restore the inoperable division to OPERABLE status within 14 days.
 - Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

^{*}Whenever two or more RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

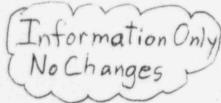
- d. For ECCS divisions 1 and 2, provided that ECCS division 3 is OPERABLE:
 - With LPCI subsystem "A" and either LPCI subsystem "B" or "C" inoperable, restore at least the inoperable LPCI subsystem "A" or inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.
 - 2. With the LPCS system inoperable and either LPCI subsystems "B" or "C" inoperable, restore at least the inoperable LPCS system or inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours."
 - Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours*.
- e. For ECCS divisions 1 and 2, provided that ECCS division 3 is OPERABLE and divisions 1 and 2 are otherwise OPERABLE:
 - With one of the above required ADS valves inoperable, restore the inoperable ADS valve to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to < 122 psig within the next 24 hours.
 - With two or more of the above required ADS valves inoperable, be in at least HOT SHUTDOWN within 12 hours and reduce reactor steam dome pressure to < 122 psig within the next 24 hours.
- f. With an ECCS discharge line *keep filled" pressure alarm instrumentation channel inoperable, perform Surveillance Requirement 4.5.1.a.1 at least once per 24 hours.
- g. With an ECCS header delta P instrumentation channel inoperable, restore the inoperable channel to OPERABLE status within 72 hours or determine ECCS header delta P locally at least once per 12 hours; otherwise, declare the associated ECCS inoperable.
- h. With Surveillance Requirement 4.5.1.d.2 not performed at the required interval due to low reactor steam pressure, the provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.
- i. In the event an ECCS system is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.6.0 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.
- j. With one or more ECCS corner room watertight doors inoperable, restore all the inoperable ECCS corner room watertight doors to OPERABLE status within 14 days, otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Whenever two or more RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

INSERT B

k. With ADS accumulator backup compressed gas system bottle pressure less than 500 psig, restore ADS accumulator backup compressed gas system bottle pressure to greater than 500 psig within 72 hours or declare the associated ADS valves inoperable, and follow Action e of this specification.

- 4.5.1 ECCS divisions 1, 2, and 3 shall be demonstrated OPERABLE by:
 - a. At least once per 31 days for the LPCS, LPCI, and HPCS systems:
 - Verifying by venting at the high point vents that the system piping from the pump discharge valve to the system isolation valve is filled with water.
 - 2. Performance of a CHANNEL FUNCTIONAL TEST of the:
 - Discharge line "keep filled" pressure alarm instrumentation, and
 - b) Header delta P instrumentation.
 - Verifying that each valve, manual, power operated, or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
 - Verifying that each ECCS corner room watertight door is closed, except during entry to and exit from the room.
 - b. Verifying that, when tested pursuant to Specification 4.0.5, each:
 - LPCS pump develops a flow of at least 6350 gpm against a test line pressure greater than or equal to 290 psig.
 - LPCI pump develops a flow of at least 7200 gpm against a test line pressure greater than or equal to 130 psig.
 - HPCS pump develops a flow of at least 6250 gpm against a test line pressure greater than or equal to 370 psig.
 - c. For the LPCS, LPCI and HPCS systems, at least once per 18 months:
 - Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel may be excluded from this test.
 - 2. Performing a CHANNEL CALIBRATION of the:
 - a) Discharge line "keep filled" pressure alarm instrumentation and verifying the:
 - 1) High pressure setpoint allowable value and the low pressure setpoint allowable value of the:



SURVEILLANCE REQUIREMENTS (Continued)

- (a) LPCS system to be ≤500 psig and ≥45.5 psig, respectively.
- (b) LPCI subsystem "A" to be ≤400 psig and ≥41.0 psig, respectively.
- (c) LPCI subsystem "B" to be ≤400 psig and ≥38.5 psig, respectively.
- (d) LPCI subsystem "C" to be ≤400 psig and ≥45.0 psig, respectively.
- Low pressure setpoint allowable value of the HPCS system to be ≥42.5 psig.
- b) Header delta P instrumentation and verifying the setpoint allowable value of the:
 - 1) LPCS system and LPCI subsystems to be ± 1 psid.
 - 2) HPCS system to be 5 ± 2.0 psid greater than the normal indicated ΔP .
- Deleted.
- Visually inspecting the ECCS corner room watertight door seals and room penetration seals and verifying no abnormal degradation, damage, or obstructions.

d. For the ADS by:



At least once per 31 days, performing a CHANNEL FUNCTIONAL TEST of the accumulator backup compressed gas system low pressure alarm system.

- 2. At least once per 18 months:
 - a) Performing a system functional test which includes simulated automatic actuation of the statem throughout its emergency operating sequence, but excluding actual valve actuation.
 - b) Manually opening each ADS valve and observing the expected change in the indicated valve position.
 - c) Performing a CHANNEL CALIBRATION of the accumulator backup compressed gas system low pressure alarm system and verifying an alarm setpoint of 500 + 40, 0 psig on decreasing pressure.

INSERT C

At least once per 31 days:

- a) Verify ADS accumulator supply header pressure is ≥ 150 psig.
- b) Verify ADS accumulator backup compressed gas system bottle pressure is ≥ 500 psig."

EMERGENCY CORE COOLING SYSTEMS

3/4.5.3 SUPPRESSION CHAMBER#



LIMITING CONDITION FOR OPERATION

3.5.3 The suppression chamber shall be OPERABLE:

- a. In OPERATIONAL CONDITION 1, 2, or 3 with a contained water volume of at least 128,800 ft⁸, equivalent to a level of -4 1/2 inches.**
- b. In OPERATIONAL CONDITION 4 or 5* with a contained water volume of at least 70,000 ft³, equivalent to a level of -12 feet 7 inches.**

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5*.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3 with the suppression chamber water level less than the above limit, restore the water level to within the limit within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 4 or 5* with the suppression chamber water level less than the above limit, suspend CORE ALTERATIONS and all operations that have a potential for draining the reactor vessel and lock the reactor mode switch in the Shutdown position. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

**Level is referenced to a plant elevation of 699 feet 11 inches (See

Figure B 3/4.6.2-1).

[#]See Specification 3.6.2.1 for pressure suppression requirements.

*The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

- c. With one suppression chamber water level instrumentation channel inoperable, restore the inoperable channel to OPERABLE status within 7 days or verify the suppression chamber water level to be greater than or equal to -4 1/2 inches** or -12 feet 7 inches**, as applicable, at least once per 12 hours by local indication.
- d. With both suppression chamber water level instrumentation channels inoperable, restore at least one inoperable channel to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours and verify the suppression chamber water level to be greater than or equal to -4 1/2 inches** or -12 feet 7 inches**, as applicable, at least once per 12 hours by local indication.

SURVEILLANCE REQUIREMENTS

- 4.5.3.1 The suppression chamber shall be determined OPERABLE by verifying:
 - a. The water level to be greater than or equal to, as applicable:
 - 1. -4 1/2 inches** at least once per 24 hours.
 - 2. -12 feet 7 inches** at least once per 12 hours.
 - b. Two suppression chamber water level instrumentation channels OPERABLE by performance of a:
 - CHANNEL CHECK at least once per 24 hours,
 - 2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
 - 3. CHANNEL CALIBRATION at least once per 18 months,

with the low water level alarm setpoint at greater than or equal to -3 inches.**

4.5.3.2 With the suppression chamber level less than the above limit in OPERATIONAL CONDITION 5*, at least once per 12 hours verify footnote conditions* to be satisfied.

^{*}The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.
**Level is referenced to a plant elevation of 699 feet 11 inches (See Figure B 3/4.6.2-1).

CONTAINMENT SYSTEMS 3/4.6.2 DEPRESSURIZATION SYSTEMS

Information Cair

SUPPRESSION CHAMBER* LIMITING CONDITION FOR OPERATION

- 3.6.2.1 The suppression chamber shall be OPERABLE with:
 - a. The pool water:
 - Volume between 131,900 ft³ and 128,800 ft³, equivalent to a level between +3 inches** and -4 1/2 inches**, and a
 - Maximum average temperature of 105°F during OPERATIONAL CONDITION 1 or 2, except that the maximum average temperature may be permitted to increase to:
 - a) 110°F with THERMAL POWER less than or equal to 1% of RATED THERMAL POWER.
 - b) 120°F with the main steam line isolation valves closed following a scram.
 - b. Drywell-to-suppression charmer bypass leakage less than or equal to 10% of the acceptable A/\sqrt{k} design value of 0.03 ft².

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With the suppression chamber water level outside the above limits, restore the water level to within the limits within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 1 or 2 with the suppression chamber average water temperature greater than or equal to 105°F, stop all testing which adds heat to the suppression pool, and restore the average temperature to less than or equal to 105°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, except, as permitted above:
 - With the suppression chamber average water temperature greater than 110°F, place the reactor mode switch in the Shutdown position and operate at least one residual heat removal loop in the suppression pool cooling mode.
 - With the suppression chamber average water temperature greater than 120°F, depressurize the reactor pressure vessel to less than 200 psig within 12 hours.

[#]See Specification 3.5.3 for ECCS requirements.
**Level is referenced to a plant elevation of 699 feet 11 inches (See Figure B 3/4.6.2-1).

CONTAINMENT SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION:

(Continued)

(Deleted.)

With one suppression chamber water level instrumentation channel inoperable and/or with one suppression pool water temperature instrumentation division inoperable, restore the inoperable instrumentation to OPERABLE status within 7 days or verify suppression chamber water level and/or temperature to be within the limits at least once per 12 hours by local indication.

With both suppression chamber water level instrumentation channels inoperable and/or with both suppression pool water temperature instrumentation divisions inoperable, restore at least one inoperable water level channel and one water temperature division to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

e. With the drywell-to-suppression chamber bypass leakage in excess of the limit, restore the bypass leakage to within the limit prior to increasing reactor coolant temperature above 200°F.

SURVEILLANCE REQUIREMENTS

- 4.6.2.1 The suppression chamber shall be demonstrated OPERABLE:
 - a. By verifying the suppression chamber water volume to be within the limits at least once per 24 hours.
 - b. At least once per 24 hours in OPERATIONAL CONDITION 1 or 2 by verifying the suppression chamber average water temperature to be less than or equal to 105°F, except:
 - At least once per 5 minutes during testing which adds heat to the suppression chamber, by verifying the suppression chamber average water temperature less than or equal to 105°F.
 - 2. At least once per 60 minutes when suppression chamber average water temperature is greater than 105°F, by verifying suppression chamber average water temperature less than or equal to 110°F and THERMAL POWER less than or equal to 1% of RATED THERMAL POWER.
 - 3. At least once per 30 minutes following a scram with suppression chamber average water temperature greater than or equal to 105°F, by verifying suppression chamber average water temperature less than or equal to 120°F.

SURVEILLANCE REQUIREMENTS (Continued)



By verifying at least two suppression chamber water level instrumentation channels and at least 14 suppression pool water temperature instrumentation channels, 7 in each of two divisions, OPERABLE by performance of a:

- CHANNEL CHECK at least once per 24 hours,
- 2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
- CHANNEL CALIBRATION at least once per 18 months.

The suppression chamber water level and suppression pool temperature alarm setpoint shall be:

- a) High water level ≤ +2 inches*
- b) Low water level 2 -3 inches*
- c) High temperature < 105°F
- d. By conducting drywell-to-suppression chamber bypass leak tests at least once per 18 months at an initial differential pressure of 1.5 psi and verifying that the A/\sqrt{k} calculated from the measured leakage is within the specified limit.

If any 1.5 psi leak test results in a calculated $A/\sqrt{k} > 20\%$ of the specified limit, then the test schedule for subsequent tests shall be reviewed by the Commission.

If two consecutive 1.5 psi leak tests result in a calculated A/\sqrt{k} greater than the specified limit, then:

- A 1.5 psi leak test shall be performed at least once per 9 months until two consecutive 1.5 psi leak tests result in the calculated A/√k within the specified limits, and
- 2. A 5 psi leak test, performed with the second consecutive successful 1.5 psi leak test, results in a calculated A/√k within the specified limit, after which the above schedule of once per 18 months for only 1.5 psi leak tests may be resumed.

If any required 5 psi leak test results in a calculated A/√k greater than the specified limit, then the test schedule for subsequent tests shall be reviewed by the Commission.

If two consecutive 5 psi leak tests result in a calculated A/Vk greater than the specified limit, then a 5 psi leak test shall be performed at least once per 9 months until two consecutive 5 psi leak tests result in a calculated A/Vk within the specified limit, after which the above schedule of once per 18 months for only 1.5 psi leak tests may be resumed.

*Level is referenced to a plant elevation of 699 feet 11 inches (See Figure B 3/4.6.2-1).

BASES

3/4.5.1 and 3/4.5.2 ECCS - OPERATING and SHUTDOWN (Continued)

ADS automatically controls seven selected safety-relief valves. Six valves are required to be OPERABLE since the LOCA analysis assumes 6 ADS valves in addition to a single failure. It is therefore appropriate to permit one of the required valves to be out-of-service for up to 14 days without materially reducing system reliability.

3/4.5.3 SUPPRESSION CHAMBER

The suppression chamber is also required to be OPERABLE as part of the ECCS to ensure that a sufficient supply of water is available to the HPCS, LPCS and LPCI systems in the event of a LOCA. This limit on suppression chamber minimum water volume ensures that sufficient water is available to permit recirculation cooling flow to the core (See Figure B 3/4.6.2-1). The OPERABILITY of the suppression chamber in OPERATIONAL CONDITIONS 1, 2 or 3 is required by Specification 3.6.2.1.

Repair work might require making the suppression chamber inoperable. This specification will permit those repairs to be made and at the same time give assurance that the irradiated fuel has an adequate cooling water supply when the suppression chamber must be made inoperable in OPERATIONAL CONDITION 4 or 5.

In OPERATIONAL CONDITION 4 and 5 the suppression chamber minimum required water volume is reduced because the reactor coolant is maintained at or below 200°F. Since pressure suppression is not required below 212°F, the minimum water volume is based on NPSH, recirculation volume, vortex prevention plus a 2'-4" safety margin for conservatism.



INSERT D

The ADS accumulator supply header pressure is supplied by the normal instrument nitrogen system, which has two compressors. This system supplies both the low pressure pneumatic supply header for other pneumatic equipment/components in the drywell and the two high pressure ADS accumulator supply headers. Maintaining the ADS accumulators at greater than or equal to 150 psig assures that the accumulators are pressurized to greater than or equal to 150 psig prior to the loss of the normal pneumatic supply. With an initial pressure of 150 psig, the accumulator is designed to operate the safety/relief valve two times at 70% of drywell design pressure following failure of the pneumatic supply to the accumulator. TS SR 4.5.1.d.1.a assures that this initial condition is met. The monthly frequency for this SR is adequate, because of the reliability of the normal pneumatic supply and multiple alarms that indicate the loss of the normal pneumatic supply. In addition, each ADS accumulator has a low pressure alarm in the control room which will signal when an ADS accumulator is less than 150 psig. This monitoring surveillance and the monthly frequency is consistent with the corresponding SR 3.5.1.3 in NUREG 1434, Rev. 1.

The ADS accumulator backup compressed gas system is comprised of two separate bottle banks of nitrogen bottles, one bottle bank for each high pressure ADS accumulator supply header. One header supplies 3 ADS valve accumulators, the other header supplies the remaining 4 ADS valves. Each bank of the ADS accumulator backup compressed gas system has its own indication and alarm for low pressure. This is a backup system provided for long term availability of ADS during and following an accident and therefore is required to be Operable. The monitoring surveillance assures the continued Operability of ADS. The monthly frequency for this SR is adequate, because each ADS bottle bank has a low pressure alarm. Also, unless the normal pneumatic supply is lost, the only losses from the bottles is through gas leakage, which is minimal.

INSERT D(Continued)

Action statement k, for the ADS accumulator backup compressed gas system bottle pressure less than 500 psig, is adequate, because this is a backup system to the ADS valve accumulators. The allowed outage time of 72 hours is reasonable based on the ADS valve accumulators remaining greater than 150 psig, below which the associated ADS valves are inoperable. In addition, the 72 hours provides sufficient time to obtain full nitrogen bottle(s) and replace low pressure bottles with the full bottle(s).

REACTIVITY CONTROL SYSTEM

CONTROL ROD SCRAM ACCUMULATORS

LIMITING CONDITION FOR OPERATION

3.1.3.5 All control rod scram accumulators shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 5".

ACTION:

- a. In OPERATIONAL CONDITION 1 or 2:
 - 1. With one control rod scram accumulator inoperable:
 - a) Within 8 hours, either:
 - Restore the inoperable accumulator to OPERABLE status, or
 - Declare the control rod associated with the inoperable accumulator inoperable.
 - b) Otherwise, be in at least HOT SHUTDOWN within the next 12 hours.
 - With more than one control rod scram accumulator inoperable, declare the associated control rod inoperable and:
 - a) If the control rod associated with any inoperable scram accumulator is withdrawn, immediately verify that at least one CRD pump is operating by inserting at least one withdrawn control rod at least one notch by drive water pressure within the normal operating range or place the reactor mode switch in the Shutdown position.
 - b) Insert the inoperable control rods and disarm the associated directional control valves either:
 - Electrically, or
 - 2) Hydraulically by closing the drive water and exhaust water isolation valves.

Otherwise, be in at least HOT SHUTDOWN within 12 hours.

- b. In OPERATIONAL CONDITION 5 with:
 - One withdrawn control rod with its associated scram accumulator inoperable, insert the affected control rod and disarm the associated directional control valves within 1 hour, either:
 - a) Electrically, or
 - b) Hydraulically by closing the drive water and exhaust water isolation valves.
 - More than one withdrawn control rod with the associated scram accumulator inoperable or with no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position.

^{*}At least the accumulator associated with each withdrawn control rod. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

- 4.1.3.5 Each control rod screen accumulator shall be determined OPERABLE:
 - a. At least once per 7 days by verifying that the indicated pressure is greater than or equal to 940 psig unless the control rod is inserted and disarmed or scrammed.
 - b. At least once per 18 months by:
 - 1. Performance of a:
 - a) CHANNEL FUNCTIONAL TEST of the leak detectors, and
 - b) CHANNEL CALIBRATION of the pressure detectors, with the alarm setpoint > 940 psig on decreasing pressure.

REACTOR COOLANT SYSTEM

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE LEAKAGE DETECTION SYSTEMS



LIMITING CONDITION FOR OPERATION

- 3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:
 - a. The primary containment atmosphere particulate radioactivity monitoring system,
 - b. The primary containment sump flow monitoring system, and
 - c. Either the primary containment air coolers condensate flow rate monitoring system or the primary containment atmosphere gaseous radioactivity monitoring system.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

- 4.4.3.1 The reactor coolant system detection systems shall be demonstrated OPERABLE by:
 - a. Primary containment atmosphere particulate and gaseous monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.
 - b. Primary containment sump flow monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION TEST at least once per 18 months.
 - c. Primary containment air coolers condensate flow rate monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

- 3.4.3.2 Reactor coolant system leakage shall be limited to:
 - a. No PRESSURE BOUNDARY LEAKAGE.
 - b. 5 gpm UNIDENTIFIED LEAKAGE.
 - c. 25 gpm total leakage averaged over any 24 hour period.
 - d. I gpm leakage at a reactor coolant system pressure at 1000 ± 50 psig from any reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1.
 - e. 2 gpm increase in UNIDENTIFIED LEAKAGE within any 24 hour period.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- b. With any reactor coolant system leakage greater than the limits in b and/or c, above, reduce the leakage rate to within the limits within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With any reactor coolant system pressure isolation valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed valves, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- d. With one or more high/low pressure interface valve leakage pressure monitors inoperable, restore the inoperable monitor(s) to OPERABLE status within 7 days or verify the pressure to be less than the alarm setpoint at least once per 12 hours by local indication; restore the inoperable monitor(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 12 hours.
- e. With any reactor coolant system leakage greater than the limit in e, above, identify the source of leakage within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

a. Monitoring the primary containment atmospheric particulate and gaseous radioactivity at least once per 12 hours.

*Technical Specification 4.0.2 does not apply.

Amendment No. 64

INSERT A

4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits on average once per 8 hours not to exceed 12 hours. *

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- Monitoring the primary containment sump flow rate on average once per 8 hours not to exceed 12 hours,* and
- Monitoring the primary containment air coolers condensate flow rate at least once per 12 hours.
- 4.4.3.2.2 Each reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1 shall be demonstrated OPERABLE:
 - a. Pursuant to Specification 4.0.5, except that in lieu of any leakage testing required by Specification 4.0.5, each valve shall be demonstrated OPERABLE by verifying leakage to be within its limit:
 - 1. At least once per 18 months, and
 - Prior to returning the valve to service following maintenance, repair or replacement work on the valve which could affect its leakage rate.

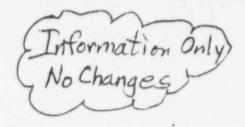
The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 3.

- b. By demonstrating OPERABILITY of the high/low pressure interface valve leakage pressure monitors by performance of a:
 - 1. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
 - 2. CHANNEL CALIBRATION at least once per 18 months,

With the alarm setpoint for the:

- HPCS system ≤ 100 psig.
- LPCS system < 500 psig.
- LPCI/shutdown cooling system < 400 psig.
- 4. RHR shutdown cooling < 190 psig.
- 5. RCIC < 90 psig.

*Technical Specification 4.0.2 does not apply.



3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ECCS - OPERATING

LIMITING CONDITION FOR OPERATION

- 3.5.1 ECCS divisions 1, 2 and 3 shall be OPERABLE with:
 - a. ECCS division 1 consisting of:
 - The OPERABLE low pressure core spray (LPCS) system with a flow path capable of taking suction from the suppression chamber and transferring the water through the spray sparger to the reactor vessel.
 - The OPERABLE 16w pressure coolant injection (LPCI) subsystem "A"
 of the RHR system with a flow path capable of taking suction from
 the suppression chamber and transferring the water to the reactor
 vessel.
 - 3. At least 6 OPERABLE ADS valves.
 - b. ECCS division 2 consisting of:
 - The OPERABLE low pressure coolant injection (LPCI) subsystems "B" and "C" of the RMR system, each with a flow path capable of taking suction from the suppression chamber and transferring the water to the reactor vessel.
 - 2. At least 6 OPERABLERS ADS valves.
 - c. ECCS division 3 consisting of the OPERABLE high pressure core spray (MPCS) system with a flow path capable of taking suction from the suppression chamber and transferring the water through the spray sparger to the reactor vessel.

APPLICABILITY: OPERATIONAL CONDITION 1, 2 and 3*.

[&]quot;The ADS is not required to be OPERABLE when reactor steam dome pressure is less than or equal to 122 psig.

^{**}See Specification 3.3.3 for trip system operability.

[#]See Special Test Exception 3.10.6.

Information Only No Changes

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION:

- a. For ECCS division 1, provided that ECCS divisions 2 and 3 are OPERABLE:
 - I. With the LPCS system inoperable, restore the inoperable LPCS system to OPERABLE status within 7 days.
 - 2. With LPCI subsystem "A" inoperable, restore the inoperable LPCI subsystem "A" to OPERABLE status within 7 days.
 - 3. With the LPCS system inoperable and LPCI subsystem "A" inoperable, restore at least the inoperable LPCI subsystem "A" or the inoperable LPCS system to OPERABLE status within 72 hours.
 - 4. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours' and in COLD SHUTDOWN within the following 24 hours.
- b. For ECCS division 2, provided that ECCS divisions 1 and 3 are OPERABLE:
 - With either LPCI subsystem "8" or "C" inoperable, restore the inoperable LPCI subsystem "8" or "C" to OPERABLE status within 7 days.
 - With both LPCI subsystems "B" and "C" inoperable, restore at least the inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.
 - Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours*.
- c. For ECCS division 3, provided that ECCS divisions 1 and 2 and the RCIC system are OPERABLE:
 - I With ECCS division 3 inoperable, restore the inoperable division to OPERABLE status within 14 days.
 - 2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and is COLD SHUTDOWN within the following 24 hours.
- d. For ECCS divisions 1 and 2, provided that ECCS division 3 is OPERABLE:
 - With LPCI subsystem "A" and either LPCI subsystem "B" or "C" inoperable, restore at least the inoperable LPCI subsystem "A" or inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.

Whanever two or more RMR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

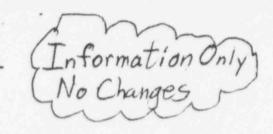
ACTION: (Continued)

- With the LPCS system inoperable and either LPCI subsystems "B" or "C" inoperable, restore at least the inoperable LPCS system or inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.
- Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours*
- e. For ECCS divisions 1 and 2, provided that ECCS division 3 is OPERABLE and divisions 1 and 2 are otherwise OPERABLE:
 - With one of the above required ADS valves inoperable, restore the inoperable ADS valve to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor states dome pressure to < 122 psig within the next 24 hours.
 - 2. With two or more of the above required ACS valves inoperable, be in at least HUT SHUTDOWN within 12 hours and reduce reactor steem dome pressure to < 122 psig within the next 24 hours.</p>
- f. With an ECCS discharge line "keep filled" pressure alarm instrumentation channel inoperable, perform Surveillance Requirement 4.5.1.a.1 at least once per 24-hours.
- g. With an ECCS header delta P instrumentation channel inoperable, restore the inoperable channel to OPERABLE status within 72 hours or determine ECCS header delta P locally at least once per 12 hours; otherwise, declare the associated ECCS inoperable.
- h. With Surveillance Requirement 4.5.1.d.2 not performed at the required interval due to low reactor steam pressure, the provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.
- In the event an ECCS system is actuated and injects water into the Reactor Coolent System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.6.C within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.
- J. With one or more ECCS corner room watertight doors inoperable, restore all the inoperable ECCS corner room watertight doors to OPERABLE status within 14 days, otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Whenever two or more RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

INSERT B

k. With ADS accumulator backup compressed gas system bottle pressure less than 500 psig, restore ADS accumulator backup compressed gas system bottle pressure to greater than 500 psig within 72 hours or declare the associated ADS valves inoperable, and follow Action e of this specification.



EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS

- 4.5.1 ECCS divisions 1, 2, and 3 shall be demonstrated OPERABLE by:
 - a. At least once per 31 days for the LPCS, LPCI, and HPCS systems:
 - Verifying by venting at the high point vents that the system piping from the pump discharge valve to the system isolation valve is filled with water.
 - 2. Performance of a CHANNEL FUNCTIONAL TEST of the:
 - a) Discharge line "keep filled" pressure alarm instrumentation, and
 - b) Header delta P instrumentation.
 - 3. Verifying that each valve (menual, power-operated, or automatic,) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
 - 4. Verifying that each ECCS corner room watertight door is closed, except during entry to and exit from the room.
 - b. Verifying that, when tested pursuant to Specification 4.0.5, each:
 - LPCS pump develops a flow of at least 6350 gpm against a test line pressure greater than or equal to 290 psig.
 - LPCI pump develops a flow of at least 7200 gpm against a test line pressure greater than or equal to 130 psig.
 - 3. HPCS pump develops a flow of at least 6200 gpm against a test line pressure greater than or equal to 330 psig.
 - Fer the LPCS, LPCI and HPCS systems, at least once per 18 months:
 - Performing a system functional test which includes simulated matematic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel may be excluded from this test.

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. . . .

SURVEILLANCE REQUIREMENTS (Continued)

- 2. Performing a CHANNEL CALIBRATION of the:
 - a) Discharge line "keep filled" pressure alarm instrumentation and verifying the:
 - 1) High pressure setpoint allowable value and the low pressure setpoint allowable value of the:
 - (a) LPCS system to be ≤500 psig and ≥45.5 psig, respectively.
 - (b) LPCI subsystem "A" to be ≤400 psig and ≥41.0 psig, respectively.
 - (c) LPCI subsystem "B" to be ≤400 psig and ≥38.5 psig, respectively.
 - (d) LPCI subsystem "C" to be ≤400 psig and ≥45.0 psig, respectively.
 - Low pressure setpoint allowable value of the HPCS system to be ≥42.5 psig.
 - b) Header delta P instrumentation and verifying the setpoint allowable value of the:
 - 1) LPCS system and LPCI subsystems to be ± 1 psid.
 - 2) HPCS system to be 5 \pm 2.0 psid greater than the normal indicated ΔP .
- 3. Deleted
- Visually inspecting the ECCS corner room watertight door seals and room penetration seals and verifying no abnormal degradation, damage, or obstructions.

d. For the ADS by:

Replace 1. With INSERTO

At least once per 31 days, performing a CHANNEL FUNCTIONAL TEST of the accumulator backup compressed gas system low pressure alarm system.

- 2. At least once per 18 months:
 - a) Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence, but excluding actual valve actuation.
 - b) Manually opening each ADS valve and observing the expected change in the indicated valve position.
 - Performing a CHANNEL CALIBRATION of the accumulator backup compressed gas system low pressure alarm system and verifying an alarm setpoint of 500 + 40, 0 psig on decreasing pressure.

PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

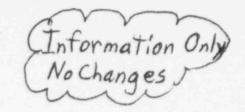
INSERT C

At least once per 31 days:

- a) Verify ADS accumulator supply header pressure is ≥ 150 psig.
- b) Verify ADS accumulator backup compressed gas system bottle pressure is ≥ 500 psig."

EMERGENCY CORE COOLING SYSTEMS

3/4.5.3 SUPPRESSION CHAMBER#



LIMITING CONDITION FOR OPERATION

3.5.3 The suppression chamber shall be OPERABLE:

- a. In OPERATIONAL CONDITION 1, 2, or 3 with a contained water volume of at least 128,800 ft³, equivalent to a level of -4 1/2 inches.**
- b. In OPERATIONAL CONDITION 4 or 5* with a contained water volume of at least 70,000 ft³, equivalent to a level of -12 feet 7 inches.**

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5*.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3 with the suppression chamber water level less than the above limit, restore the water level to within the limit within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 4 or 5* with the suppression chamber water level less than the above limit, suspend CORE ALTERATIONS and all operations that have a potential for draining the reactor vessel and lock the reactor mode switch in the Shutdown position. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

**Level is referenced to a plant elevation of 699 feet 11 inches (see Figure B 3/4.6.2-1).

[#]See Specification 3.6.2.1 for pressure suppression requirements.
*The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

- c. With one suppression chamber water level instrumentation channel inoperable, restore the inoperable channel to OPERABLE status within 7 days or verify the suppression chamber water level to be greater than or equal to -4 1/2 inches** or -12 feet 7 inches**, as applicable, at least once per 12 hours by local indication.
- d. With both suppression chamber water level instrumentation channels inoperable, restore at least one inoperable channel to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours and verify the suppression chamber water level to be greater than or equal to -4 1/2 inches** or -12 icet 7 inches**, as applicable, at least once per 12 hours by local indication.

SURVEILLANCE REQUIREMENTS

- 4.5.3.1 The suppression chamber shall be determined OPERABLE by verifying:
 - a. The water level to be greater than or equal to, as applicable:
 - 1. -4 1/2 inches** at least once per 24 hours.
 - -12 feet 7 inches** at least once per 12 hours.
 - b. Two suppression chamber water level instrumentation channels OPERABLE by performance of a:
 - 1. CHANNEL CHECK at least once per 24 hours,
 - 2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
 - 3. CHANNEL CALIBRATION at least once per 18 months,

with the low water level alarm setpoint at greater than or equal to 3 inches.**

4.5.3.2 With the suppression chamber level less than the above limit in OPERATIONAL CONDITION 5*, at least once per 12 hours verify footnote conditions* to be satisfied.

^{*}The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

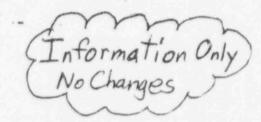
^{**}Level is referenced to a plant elevation of 699 feet 11 inches (See Figure B 3/4.6.2-1).

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION SYSTEMS

SUPPRESSION CHAMBER

LIMITING CONDITION FOR OPERATION



- 3.6.2.1 The suppression chamber shall be OPERABLE with:
 - a. The pool water:
 - 1. Volume between 131,900 ft 3 and 128,800 ft 3 , equivalent to a level between +3 inches** and -4 1/2 inches**, and a
 - Maximum average temperature of 105°F during OPERATIONAL CONDITION 1 or 2, except that the maximum average temperature may be permitted to increase to:
 - a) 110°F with THERMAL POWER less than or equal to 1% of RATED THERMAL POWER.
 - b) 120°F with the main steam line isolation valves closed following a scrame.
 - b. Drywell-to-suppression chamber bypass leakage less than or equal to 10% of the acceptable A/\sqrt{k} design value of 0.03 ft².

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

- a. With the suppression chamber water level outside the above limits; restore the water level to within the limits within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 1 or 2 with the suppression chamber average water temperature greater than or equal to 105°F, stop all testing which adds heat to the suppression pool, and restore the average temperature to less than or equal to 105°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, except, as permitted above:
 - 2. With the suppression chamber average water temperature greater than 110°F, place the reactor mode switch in the Shutdown position and operate at least one residual heat removal loop in the suppression pool cooling mode.
 - 2. With the suppression chamber average water temperature greater than 120°F, depressurize the reactor pressure vessel to less than 200 psig within 12 hours.

[#]See Specification 3.5.3 for ECCS requirements.
***Level is referenced to a plant elevation of 699 feet 11 inches (See Figure B 3/4.6.2-1).

CONTAINMENT SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

Deleted

With one suppression chamber water level instrumentation channel inoperable and/or with one suppression pool water temperature instrumentation division inoperable, restore the inoperable instrumentation to OPERABLE status within 7 days or verify suppression chamber water level and/or temperature to be within the limits at least once per 12 hours by local indication.

With both suppression chamber water level instrumentation channels insperable and/or with both suppression puol water temperature instrumentation divisions inoperable, restore at least one inoperable water level channel and one water temperature division to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following

e. With the drywell-to-suppression chamber bypass leakage in excess of the limit, restore the bypass leakage to within the limit prior to increasing reactor coolant temperature above 200°F.

SURVEILLANCE REQUIREMENTS

- 4.6.2.1 The suppression chamber shall be demonstrated OPERABLE:
 - a. By verifying the suppression chamber water volume to be within the limits at least once per 24 hours.
 - b. At least once per 24 hours in OPERATIONAL COMDITION 1 or 2 by verifying equal to 105°F, except:
 - At least once per 5 minutes during testing which adds heat to the suppression chamber, by verifying the suppression chamber average water temperature less than or equal to 105°F.
 - 2. It least once per 60 minutes when suppression chamber average water temperature is greater than 105°F, by verifying suppression and THERMAL FOWER less than or equal to 110°F POWER.
 - 3. At least once per 30 minutes following a scram with suppression chamber average water temperature greater than or equal to 105°F, by verifying suppression chamber average water temperature less than or equal to 120°F.

SURVEILLANCE REQUIREMENTS (Continued)



By verifying at least two suppression chamber water level instrumentation channels and at least 14 suppression pool water temperature instrumentation channels, 7 in each of two divisions, OPERABLE by performance of a:

- 1. CHANNEL CHECK at least once per 24 hours,
- 2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
- 3. CHANNEL CALIBRATION at least once per 18 months.

The suppression chamber water level and suppression pool temperature alarm setpoint shall be:

- a) High water level ≤ +2 inches*
- b) Low water level ≥ -3 inches*
- c) High temperature ≤ 105°F
- d. By conducting drywell-to-suppression chamber bypass leak tests at least once per 18 months at an initial differential pressure of 1.5 psi and verifying that the A/\sqrt{k} calculated from the measured leakage is within the specified limit.

If any 1.5 psi leak test results in a calculated $A/\sqrt{k} > 20\%$ of the specified limit, then the test schedule for subsequent tests shall be reviewed by the Commission.

If two consecutive 1.5 psi leak tests result in a calculated A/\sqrt{k} greater than the specified limit, then:

- A 1.5 psi leak test shall be performed at least once per 9 months until two consecutive 1.5 psi leak tests result in the calculated A/√k within the specified limits, and
- 2. A 5 psi leak test, performed with the second consecutive successful 1.5 psi leak test, results in a calculated A/√k within the specified limit, after which the above schedule of once per 18 months for only 1.5 psi leak tests may be resumed.

If any required 5 psi leak test results in a calculated A/\sqrt{k} greater than the specified limit, then the test schedule for subsequent tests shall be reviewed by the Commission.

If two consecutive 5 psi leak tests result in a calculated A/\sqrt{k} greater than the specified limit, then a 5 psi leak test shall be performed at least once per 9 months until two consecutive 5 psi leak tests result in a calculated A/\sqrt{k} within the specified limit, after which the above schedule of once per 18 months for only 1.5 psi leak tests may be resumed.

*Level is referenced to a plant elevation of 699 feet 11 inches (See)
Figure B 3/4.6.2-1).

BASES

3/4.5.1 and 3/4.5.2 ECCS - OPERATING and SHUTDOWN (Continued)

ADS automatically controls seven selected safety-relief valves. Six valves are required to be OPERABLE since the LOCA analysis assumes 6 ADS valves in addition to a single failure. It is therefore appropriate to permit one of the required valves to be out-of-service for up to 14 days without materially reducing system reliability.

3/4.5.3 SUPPRESSION CHAMBER

The suppression chamber is also required to be OPERABLE as part of the ECCS to ensure that a sufficient supply of water is available to the HPCS, LPCS and LPCI systems in the event of a LOCA. This limit on suppression chamber minimum water volume ensures that sufficient water is available to permit recirculation cooling flow to the core (See Figure B 3/4.6.2-1). The OPERABILITY of the suppression chamber in OPERATIONAL CONDITIONS 1, 2 or 3 is required by Specification 3.6.2.1.

Repair work might require making the suppression chamber inoperable. This specification will permit those repairs to be made and at the same time give assurance that the irradiated fuel has an adequate cooling water supply when the suppression chamber must be made inoperable in OPERATIONAL CONDITION 4 or 5.

In OPERATIONAL CONDITION 4 and 5 the suppression chamber minimum required water volume is reduced because the reactor coolant is maintained at or below 200°F. Since pressure suppression is not required below 212°F, the minimum water volume is based on NPSH, recirculation volume, vortex prevention plus a 2'-4" safety margin for conservatism.

ATTACHMENT B PROPOSED AMENDMENTS TO THE LICENSE/TECHNICAL SPECIFICATIONS

INSERT D

The ADS accumulator supply header pressure is supplied by the normal instrument nitrogen system, which has two compressors. This system supplies both the low pressure pneumatic supply header for other pneumatic equipment/components in the drywell and the two high pressure ADS accumulator supply headers. Maintaining the ADS accumulators at greater than or equal to 150 psig assures that the accumulators are pressurized to greater than or equal to 150 psig prior to the loss of the normal pneumatic supply. With an initial pressure of 150 psig, the accumulator is designed to operate the safety/relief valve two times at 70% of drywell design pressure following failure of the pneumatic supply to the accumulator. TS SR 4.5.1.d.1.a assures that this initial condition is met. The monthly frequency for this SR is adequate, because of the reliability of the normal pneumatic supply and multiple alarms that indicate the loss of the normal pneumatic supply. In addition, each ADS accumulator has a low pressure alarm in the control room which will signal when an ADS accumulator is less than 150 psig. This monitoring surveillance and the monthly frequency is consistent with the corresponding SR 3.5.1.3 in NUREG 1434, Rev. 1.

The ADS accumulator backup compressed gas system is comprised of two separate bottle banks of nitrogen bottles, one bottle bank for each high pressure ADS accumulator supply header. One header supplies 3 ADS valve accumulators, the other header supplies the remaining 4 ADS valves. Each bank of the ADS accumulator backup compressed gas system has its own indication and alarm for low pressure. This is a backup system provided for long term availability of ADS during and following an accident and therefore is required to be Operable. The monitoring surveillance assures the continued Operability of ADS. The monthly frequency for this SR is adequate, because each ADS bottle bank has a low pressure alarm. Also, unless the normal pneumatic supply is lost, the only losses from the bottles is through gas leakage, which is minimal.

PROPOSED AMENDMENTS TO THE LICENS. **CHNICAL SPECIFICATIONS

INSERT D(Continued)

Action statement k, for the ADS accumulator backup compressed gas system bottle pressure less than 500 psig, is adequate, because this is a backup system to the ADS valve accumulators. The allowed outage time of 72 hours is reasonable based on the ADS valve accumulators remaining greater than 150 psig, below which the associated ADS valves are inoperable. In addition, the 72 hours provides sufficient time to obtain full nitrogen bottle(s) and replace low pressure bottles with the full bottle(s).

The changes involve the Surveillance Requirements of five TS concerning indicators/alarms that have no corresponding Action statements if the indication and/or alarms are not Operable. The instrumentation has no automatic or interlock type functions. These TS involve Surveillance Requirements (SRs) 4.1.3.5.b, 4.4.3.2.1, 4.5.1.d.1, 4.5.1.d.2.c), 4.5.3.1.b, and 4.6.2.1.c.3. These TS SRs, or portions of the TS SRs, are proposed to be relocated, rather than changed, because they are not required to be in the TS by any of the four criteria in 10CFR50.36(c)(2)(ii) and are not in NUREG 1434, Standard Technical Specifications.

Commonwealth Edison has evaluated the proposed Technical Specification Amendment and determined that it does not represent a significant hazards consideration. Based on the criteria for defining a significant hazards consideration established in 10 CFR 50.92, operation of LaSalle County Station Units 1 and 2 in accordance with the proposed amendment will not:

 Involve a significant increase in the probability or consequences of an accident previously evaluated because:

The proposed change relocates instrumentation requirements, which provide no post-accident function from the Technical Specifications to the Bases, UFSAR, procedures, or other plant controlled documents. These requirements are part of routine operational monitoring and are not considered in the safety analysis. The Bases, UFSAR, procedures, and other plant controlled documents containing the relocated information will be maintained in accordance with 10 CFR 50.59. In addition to 10 CFR 50.59 provisions, the Technical Specification Bases are subject to the change control provisions in the Administrative Controls Chapter of the Technical Specifications. The UFSAR is subject to the change control provisions of 10 CFR 50.71(e), and plant procedures and other plant controlled documents are subject to controls imposed by plant administrative procedures, which endorse applicable regulations and standards. Since any changes to the Bases, UFSAR, procedures, or other plant controlled documents will be evaluated per the requirements of 10CFR50.59, no significant increase in the probability or consequences of an accident previously evaluated will be allowed. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The Reactor Coolant Operational Leakage limits monitoring surveillance 4.4.3.2.1 has been modified to eliminate procedural details of what instrumentation/leakage detection systems to use in verifying limits. The proposed surveillance requires verification that the reactor coolant system leakage is within limits at the same frequency as the current surveillance requirement. The reactor coolant leakage detection systems operability requirements are controlled by Technical Specification 3/4.4.3.1. Since any changes to procedures describing the method of monitoring leakage will be evaluated per the requirements of 10CFR50.59, no significant increase in the probability or consequences of an accident previously evaluated will be allowed. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The monitoring action and the surveillance requirements added for the Automatic Depressurization System (ADS) pneumatic supply help assure the continued operability of ADS for the mitigation of accidents involving high reactor vessel pressure and the loss of the high pressure core spray system. The surveillance frequency is reasonable for the ADS supply header pressure due to the redundancy of the instrument nitrogen system, several alarms warning of system trouble. The ADS accumulator backup compressed gas system bottle pressure monitoring surveillance frequency and the proposed action on low bottle pressure is reasonable due to the ADS accumulator check valves and the normal ADS supply header. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2) Create the possibility of a new or different kind of accident from any accident previously evaluated because:

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The proposed change will not impose or eliminate any requirements, and adequate control of the requirements will be maintained. Thus, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) Involve a significant reduction in the margin of safety because:

The proposed change will not reduce a margin of safety because it has no impact on any safety analysis assumption. In addition, the requirements to be transposed from the Technical Specifications to procedures, or other plant controlled documents are the same as the existing Technical Specifications. Since any future changes to these requirements in the Bases, UFSAR, procedures, or other plant controlled documents will be evaluated per the requirements of 10 CFR 50.59, no significant reduction in a margin of safety will be allowed.

Based on 10 CFR 50.92, the existing requirement for NRC review and approval of revisions to these requirements proposed for relocation, does not have a specific margin of safety upon which to evaluate. However, since the proposed change is consistent with the BWR Standard Technical Specifications, NUREG-1434, approved by the NRC Staff, revising the Technical Specifications to reflect the approved level of instrumentation requirements ensures no significant reduction in the margin of safety.

The Reactor Coolant Operational Leakage limits monitoring surveillance 4.4.3.2.1 has been modified to eliminate procedural details of what instrumentation/leakage detection systems to use in verifying limits. The proposed surveillance requires verification that the reactor coolant system leakage is within limits at the same frequency as the current surveillance requirement. The reactor coolant leakage detection systems operability requirements are controlled by Technical Specification 3/4.4.3.1. Because there are no changes to either the reactor coolant leakage detection systems and the reactor coolant leakage continues to be maintained within the specified limits, at the required frequency, there is no reduction in the margin of safety.

The monitoring action and the surveillance requirements added for the Automatic Depressurization System (ADS) pneumatic supply help assure the continued operability of ADS for the mitigation of accidents involving high reactor vessel pressure and the loss of the high pressure core spray system. This helps assure ADS is maintained in a ready status. The previous TS SRs only tested the instrumentation, and did not verify the parameter remained within limits. Therefore, with the margin of safety is not reduced.

Guidance has been provided in "Final Procedures and Standards on No Significant Hazards Considerations," Final Rule, 51 FR 7744, for the application of standards to license change requests for determination of the existence of significant hazards considerations. This document provides examples of amendments which are and are not considered likely to involve significant hazards considerations. These proposed amendments most closely fit the example of a change which may either result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component specified in the Standard Review Plan.

This proposed amendment does not involve a significant relaxation of the criteria used to establish safety limits, a significant relaxation of the bases for the limiting safety system settings or a significant relaxation of the bases for the limiting conditions for operations. Therefore, based on the guidance provided in the Federal Register and the criteria established in 10 CFR 50.92(c), the proposed change does not constitute a significant hazards consideration.

ATTACHMENT D ENVIRONMENTAL ASSESSMENT STATEMENT APPLICABILITY REVIEW

Commonwealth Edison has evaluated the proposed amendment against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR Part 51.21. It has been determined that the proposed changes meet the criteria for categorical exclusion as provided for under 10 CFR Part 51.22(c)(9). This conclusion has been determined because the changes requested do not pose significant hazards considerations or do not involve a significant increase in the amounts, and no significant changes in the types of any effluents that may be released off-site. Additionally, this request does not involve a significant increase in individual or cumulative occupational radiation exposure.