3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

B. Containment Cooling Subsystem

1. Except as specified in 3.5.B.2, 3.5.B.3, and 3.~~5.F.~~3 through 3.5.F.6 below, both containment cooling subsystem loops shall be operable whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F.

2. From and after the date that one of the containment cooling service water subsystem pumps is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding thirty days unless such pump is sooner made operable, provided that during such thirty days all other active components of the containment cooling subsystem are operable.

4.5 SURVEILLANCE REQUIREMENT (Cont'd.)

B. Surveillance of the Containment Cooling Subsystem shall be performed as follows:

1. Containment Cooling Service Water Subsystem Testing:

Item	Frequency
a. Pump & Valve Operability	Once/3 months
b. Flow Rate Test. Each containment cooling water pump shall deliver at least 3500 gpm against a pressure of 180 psig.	After pump maintenance and every 3 months

c. ← Insert (A):

~~2. When it is determined that one containment cooling service water pump is inoperable, the remaining components of that subsystem and the other containment cooling subsystem shall be demonstrated to be operable immediately and daily thereafter.~~

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Insert (A)

Each manual, power operated or automatic valve, in the flow path that is not locked, sealed or otherwise secure in its position, must be verified to be in its correct position.	Every 31 days

Insert (B)

Entry into the Startup/Hot Standby Mode is permitted provided that the required testing is successfully completed within 12 hours after reactor steam pressure is adequate to perform the test.

Insert (C)

Entry into the Run mode is permitted provided that the required testing is successfully completed within 12 hours after reactor steam pressure is adequate to perform the test.

Table 4.5.1

C. Surveillance of the HPCI Subsystem shall be performed as follows:

	Item	Frequency
1.	Pump Operability	Every 31 days
2.	Motor Operated Valve	Every 31 days
3.	Flow Rate Test-HPCI pump shall deliver at least 5000 gpm against a system head corresponding to a reactor vessel pressure of 1150 psig when steam is being supplied to the turbine at (1000 +20, -80) psig.**	After pump maintenance and every 3 months
4.	Flow Rate Test-HPCI pump shall deliver at least 5000 gpm against a system head corresponding to a reactor vessel pressure of ≥ 300 psig when steam is being supplied to the turbine at 300 (+ 50, -100) psig.*	Prior to exceeding 350 psig following a refueling outage or an outage during which HPCI maintenance was performed.
5.	Simulated Automatic Actuation Test	Each refueling outage
6.	Logic System Functional Test	Each refueling outage

Insert (13)

~~* The provisions of Specification 4.0.D are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.~~

** Insert (C)

3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

2. a. From and after the date that the HPCI subsystem is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, provided that during such seven days all active components of the Automatic Pressure Relief Subsystem, the core spray subsystems, LPCI subsystem, and isolation cooling system are operable.

b. During reactor startup when HPCI surveillances are being performed, if the testing requirements of 4.5.C.3 or 4.5.C.4 cannot be met, continued reactor startup is not permitted. The HPCI system shall be declared inoperable and the provisions of 3.5.C.3 shall be implemented.

3. If the requirements of 3.5.C cannot be met an orderly shutdown shall be initiated and the reactor pressure shall be reduced to 90 psig within 24 hours.

4.5 SURVEILLANCE REQUIREMENT (Cont'd.)

2. When it is determined that HPCI subsystem is inoperable, the LPCI subsystem, both core spray subsystems, the automatic pressure relief subsystem, and the motor operated isolation valves and shell side make-up system for the isolation condenser system shall be demonstrated to be operable immediately. The motor operated isolation valves and shell side make-up system of the isolation condenser shall be demonstrated to be operable daily thereafter. Daily demonstration of the automatic pressure relief subsystem operability is not required provided that two feedwater pumps are operating at power levels above 300 MWe; and one feedwater pump is operating as normally required with one additional feedwater pump operable at power levels less than 300 MWe.

3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

is available which can be used to blank an open housing in the event of a leak.

8. When irradiated fuel is in the reactor and the vessel head is removed, work that has the potential for draining the vessel may be performed with less than 112,000 ft^3 of water in the suppression pool, provided that: (1) the total volume of water in the suppression pool, dryer separator above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft^3; (2) the fuel storage pool gate is removed; (3) the low pressure coolant injection and core spray systems are operable as specified in 3.5.F.3, 3.5.F.4 and 3.5.F.5; and (4) the automatic mode of the drywell sump pumps is disabled.

G. Not Used

H. Maintenance of Filled Discharge Pipe

Whenever core spray, LPCI, or HPCI ECCS are required to be operable, the discharge piping from the pump discharge

4.5 SURVEILLANCE REQUIREMENT (Cont'd.)

G. Not Used

H. Maintenance of Filled Discharge Pipe

The following surveillance requirements shall be adhered to, to assure that the discharge piping of the core spray,

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3.5 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

For the safety related shared features of each plant, the Technical Specifications for that unit contain the operability and surveillance requirements for the shared feature; thus, the level of operability for one unit is maintained independently of the status of the other. For example, the shared diesel (2/3 diesel) would be mentioned in the specifications for both Units 2 and 3 and even if Unit 3 were in the Cold Shutdown Condition and needed no diesel power, readiness of the 2/3 diesel would be required for continuing Unit 2 operation.

G. Specification 3.5.F.4 provides that should this occur, no work will be performed which could preclude adequate emergency cooling capability being available. Work is prohibited unless it is in accordance with specified procedures which limit the period that the control rod drive housing is open and assures that the worst possible loss of coolant resulting from the work will not result in uncovering the reactor core. Thus, this specification assures adequate core cooling. Specification 3.9 must be consulted to determine other requirements for the diesel generator.

Specification 3.5.F.5 provides assurance that an adequate supply of coolant water is immediately available to the low pressure core cooling systems and that the core will remain covered in the event of a loss of coolant accident while the reactor is depressurized with the head removed.

G. Not Used

H. Maintenance of Filled Discharge Pipe - If the discharge piping of the core spray, LPCI, and HPCI are not filled, a water hammer can develop in this piping when the pump and/or pumps are started.

I. Average Planar LHGR

This specification assures that the peak cladding temperature following a postulated design basis loss-of-coolant accident will not exceed the 2200°F limit specified in 10CFR50 Appendix K considering the postulated affects of fuel pellet densification.

The peak cladding temperature following a postulated loss-of-coolant accident is primarily a function of the average LHGR of all the rods in a fuel assembly at any axial location and is only dependent secondarily on the rod to rod power distribution within a fuel assembly. Since expected local variations in power distribution within a fuel assembly affect the calculated peak clad

3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

B. Containment Cooling Subsystem

1. Except as specified in 3.5.B.2, 3.5.B.3, and 3.5.F.3 through 3.5.F.6 below, both containment cooling subsystem loops shall be operable whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F.

2. From and after the date that one of the containment cooling service water subsystem pumps is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding thirty days unless such pump is sooner made operable, provided that during such thirty days all other active components of the containment cooling subsystem are operable.

4.5 SURVEILLANCE REQUIREMENT (Cont'd.)

B. Surveillance of the Containment Cooling Subsystem shall be performed as follows:

1. Containment Cooling Service Water Subsystem Testing:

Item	Frequency
a. Pump & Valve Operability	Once/3 months
b. Flow Rate Test. Each containment cooling water pump shall deliver at least 3500 gpm against a pressure of 180 psig.	After pump maintenance and every 3 months

C. —Insert (A)

~~2. When it is determined that one containment cooling service water pump is inoperable, the remaining components of that subsystem and the other containment cooling subsystem shall be demonstrated to be operable immediately and daily thereafter.~~

Insert (A)

Each manual, power operated or automatic valve, in the flow path that is not locked, sealed or otherwise secure in its position, must be verified to be in its correct position.	Every 31 days

Insert (B)

Entry into the Startup/Hot Standby Mode is permitted provided that the required testing is successfully completed within 12 hours after reactor steam pressure is adequate to perform the test.

Insert (C)

Entry into the Run mode is permitted provided that the required testing is successfully completed within 12 hours after reactor steam pressure is adequate to perform the test.

Table 4.5.1

C. Surveillance of the HPCI Subsystem shall be performed as follows:

	Item	Frequency
1.	Pump Operability	Every 31 days
2.	Motor Operated Valve	Every 31 days
3.	Flow Rate Test-HPCI pump shall deliver at least 5000 gpm against a system head corresponding to a reactor vessel pressure of 1150 psig when steam is being supplied to the turbine at (1000 +20, -80) psig.**	After pump maintenance and every 3 months
4.	Flow Rate Test-HPCI pump shall deliver at least 5000 gpm against a system head corresponding to a reactor vessel pressure of ≥ 300 psig when steam is being supplied to the turbine at 300 (+ 50, -100) psig.*	Prior to exceeding 350 psig following a refueling outage or an outage during which HPCI maintenance was performed.
5.	Simulated Automatic Actuation Test	Each refueling outage
6.	Logic System Functional Test	Each refueling outage

Insert (B)

* ~~The provisions of Specification 4.0.D are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.~~

** Insert (C)

3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

2. a. From and after the date that the HPCI subsystem is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such subsystem is sooner made operable, provided that during such seven days all active components of the Automatic Pressure Relief Subsystem, the core spray subsystems, LPCI subsystem, and isolation cooling system are operable.

b. During reactor startup when HPCI Surveillances are being performed, if the testing requirements of 4.5.C.3 or 4.5.C.4 cannot be met, continued reactor startup is not permitted. The HPCI system shall be declared inoperable and the provisions of 3.5.C.3 shall be implemented

3. If the requirements of 3.5.C cannot be met an orderly shutdown shall be initiated and the reactor pressure shall be reduced to ~~90~~ 150 psig within 24 hours.

4.5 SURVEILLANCE REQUIREMENT (Cont'd.)

2. When it is determined that HPCI subsystem is inoperable, the LPCI subsystem, both core spray subsystems, the automatic pressure relief subsystem, and the motor operated isolation valves and shell side make-up system for the isolation condenser system shall be demonstrated to be operable immediately. The motor operated isolation valves and shell side make-up system of the isolation condenser shall be demonstrated to be operable daily thereafter. Daily demonstration of the automatic pressure relief subsystem operability is not required provided that two feedwater pumps are operating at power levels above 300 MWe; and one feedwater pump is operating as normally required with one additional feedwater pump operable at power levels less than 300 MWe.

3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

available which can be used to blank an open housing in the event of a leak.

8. When irradiated fuel is in the reactor and the vessel head is removed, work that has the potential for draining the vessel may be performed with less than 112,000 ft^3 of water in the suppression pool, provided that: 1) the total volume of water in the suppression pool, dryer separator above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft^3; 2) the fuel storage pool gate is removed; 3) the low pressure coolant injection and core spray systems are operable as specified in 3.5.F.3, 3.5.F.4 and 3.5.F.5; and 4) the automatic mode of the drywell sump pumps is disabled.

G. Not Used

H. Maintenance of Filled Discharge Pipe

Whenever core spray, LPCI, or HPCI ECCS are required to be operable, the discharge piping from the pump discharge

4.5 SURVEILLANCE REQUIREMENT (Cont'd.)

G. Not Used

H. Maintenance of Filled Discharge Pipe

The following surveillance requirements shall be adhered to, to assure that the discharge piping of the core spray,

3.5 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

For the safety related shared features of each plant, the Technical Specifications for that unit contain the operability and surveillance requirements for the shared feature; thus, the level of operability for one unit is maintained independently of the status of the other. For example, the shared diesel (2/3 diesel) would be mentioned in the specifications for both Units 2 and 3 and even if Unit 3 were in the Cold Shutdown Condition and needed no diesel power, readiness of the 2/3 diesel would be required for continuing Unit 2 operation.

G. Specification 3.5.F.4 provides that should this occur, no work will be performed which could preclude adequate emergency cooling capability being available. Work is prohibited unless it is in accordance with specified procedures which limit the period that the control rod drive housing is open and assures that the worst possible loss of coolant resulting from the work will not result in uncovering the reactor core. Thus, this specification assures adequate core cooling. Specification 3.9 must be consulted to determine other requirements for the diesel generator.

Specification 3.5.F.5 provides assurance that an adequate supply of coolant water is immediately available to the low pressure core cooling systems and that the core will remain covered in the event of a loss of coolant accident while the reactor is depressurized with the head removed.

G. Not Used

H. Maintenance of Filled Discharge Pipe - If the discharge piping of the core spray, LPCI, and HPCI are not filled, a water hammer can develop in this piping when the pump and/or pumps are started.

I. Average Planar LHGR

This specification assures that the peak cladding temperature following a postulated design basis loss-of-coolant accident will not exceed the 2200°F limit specified in 10CFR50 Appendix K considering the postulated affects of fuel pellet densification.

The peak cladding temperature following a postulated loss-of-coolant accident is primarily a function of the average LHGR of all the rods in a fuel assembly at any axial location and is only dependent secondarily on the rod to rod power distribution within a fuel assembly. Since expected

ATTACHMENT 6

BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated this proposed amendment and determined that it involves no significant hazards consideration. In accordance with the criteria of 10 CFR 50.92(c), the proposed amendment does not.:

(1) Involve a significant increase in the probability or consequences of an accident previously because:

The additional LCO action statement for the HPCI system and proposed SR for the CCSW system aid in the early detection of potential inoperability of essential systems. These additions and the 3/4.5.G administrative changes will not affect the probability of any accident previously evaluated.

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

No new modes of operation will be created by these changes nor will the plant be allowed to operate beyond prescribed limits. These supplemental changes to the previously proposed amendment are all enhancements or administrative in nature. Therefore the probability of new or different accidents has not been created.

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

Implementing the proposed supplemental changes will not create any challenge to the existing safety analyses. The addition of valve position verifications can only aid in the early detection of inoperability of the CCSW system. The proposed HPCI system LCO action statement will not allow reactor startup to continue until HPCI operability is assured. The 3/4.5.G change is purely administrative. Therefore the margin of safety is maintained.

ATTACHMENT 7

STANDARD TECHNICAL SPECIFICATION SECTION 4.5.1 PAGES

(For Reference Only)

SURVEILLANCE REQUIREMENTS

4.5.1 ECCS division 1, 2 and 3 shall be demonstrated OPERABLE by:

a. At least once per 31 days for the LPCS, LPCI and HPCS systems:

1. Verifying 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) (pump failure) alarm instrumentation, and

b) Header delta P instrumentation.

3. Verifing that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secure in position, is in its correct position.

b. Verifing that, when tested pursuant to Specification 4.0.5, each:

1. LPCS pump develops a flow of at least (6598) gpm against a test line pressure greater than or equal to (452) psig.

2. LPCI pump develops a total flow of at least (7666) gpm against a test line pressure greater than or equal to (111) psig.

3. HPCS pump develops a flow of at least (659) gpm against a test line pressure greater than or equal to (397) psig.

c. For the LPCS, LPCI and HPCS systems, at least once per 18 months:

1. 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.

SURVEILLANCE REQUIREMENTS (Continued)

2. Performing a CHANNEL CALIBRATION of the:

   a) Discharge line "keep filled" (pressure) (pump failure) alarm instrumentation and verifying the:

      1) High pressure setpoint and the low pressure setpoint of the:

         (a) LPCS system to be $\leq$ (450) psig and $\geq$ (40) psig, respectively.

         (b) LPCI subsystems to be $\leq$ (400) psig and $\geq$ (40) psig, respectively.

      2) Low pressure setpoint of the HPCS system to be $\geq$ (40) psig.

   b) Header delta P instrumentation and verifying the setpoint of the:

      1) LPCS system and LPCI subsystems to be $\pm$ (1) psid.

      2) HPCS system to be (0.5) $\pm$ (0.25) psid less than the normal indicated ΔP.

3. Verifying that the suction for the HPCS system is (automatically) transferred from the condensate storage tank to the suppression chamber on a condensate storage tank low water level signal and on a suppression chamber high water level signal.

d. At least once per 18 months for the ADS by:

1. Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence, but excluding actual valve actuation.

2. Manually opening each ADS valve (when the reactor steam dome pressure is greater than or equal to 100 psig) and observing (the expected change in the indicated valve position) (that either:

   a) The control valve or bypass valve position responds accordingly, or

   b) There is a corresponding change in the measured steam flow.)