

FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT C

LICENSE AMENDMENT REQUEST #229
REVISION 0

Proposed ITS/ITS Bases

Change Pages - Strikethrough/Highlight

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.5.2.6 Verify the flow controllers for the following LPI throttle valves operate properly: a. DHV-110 b. DHV-111	24 months
SR 3.5.2.7 Verify, by visual inspection, each ECCS train reactor building emergency sump suction inlet is not restricted by debris and suction inlet trash racks and screens show no evidence of structural distress or abnormal corrosion.	24 months
SR 3.5.2.8 Verify LPI ECCS piping is full of water.	31 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.1 -----NOTE----- An LPI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually re-aligned to the ECCS mode of operation. ----- For all equipment required to be OPERABLE; the following SRs are applicable. SR 3.5.2.1 SR 3.5.2.6 SR 3.5.2.2 SR 3.5.2.7 SR 3.5.2.5 SR 3.5.2.8</p>	<p>In accordance with applicable SRs</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.6.6.7 -----NOTE----- Not applicable in MODE 4. ----- Verify each required containment cooling train starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.8 Verify each spray nozzle is unobstructed.	10 years
SR 3.6.6.9 Verify B5 suction piping is full of water.	31 days

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.5.2.5

This Surveillance ensures that these valves are in the proper position to prevent the HPI pump from exceeding its runout limit. This 24 month Frequency is acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment.

SR 3.5.2.6

This Surveillance ensures that the flow controllers for the LPI throttle valves will automatically control the LPI train flow rate in the desired range and prevent LPI pump runout as RCS pressure decreases after a LOCA. The 24 month Frequency is acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment.

SR 3.5.2.7

Periodic inspections of the reactor building emergency sump suction inlet ensure that it is unrestricted and stays in proper operating condition. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and to preserve access to the location. This Frequency has been found to be sufficient to detect abnormal degradation and has been confirmed by operating experience.

SR 3.5.2.8

With the exception of LPI trains in operation, the LPI piping and components are normally isolated from the BWST by normally closed suction valves. As such, the piping has the potential to develop voids as a result of external system leakage. Maintaining the LPI piping and components between the BWST and the RCS full of water ensures that the system will perform properly, injecting its full capacity into the RCS upon demand. This will also prevent water hammer, pump cavitation, and pumping of air into the reactor vessel following an automatic actuation signal or during decay heat removal operation. The 31 day Frequency takes into consideration the fact that external LPI system leakage is periodically monitored.

(continued)

BASES

SURVEILLANCE **SF 3.5.2.8 (continued)**
REQUIREMENTS

Verification that the LPI piping and components remain full of water is performed by monitoring LPI pump suction pressure to ensure all portions of the LPI system remain above atmospheric pressure.

REFERENCES

1. 10 CFR 50.46.
2. FSAR, Section 6.1.
3. NRC Memorandum to V. Stello, Jr., from R.L. Baer, "Recommended Interim Revisions to LCOs for ECCS Components," December 1, 1975.
4. American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI, Inservice Inspection, Article IWP-3000.
5. FTI 51-1266138-01, Safety Analysis Input to Startup Team Safety Assessment.
6. FSAR, Section 4.3.10.1.

NOTE

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.6.7 (continued)

approximately in half (motor at low speed). Thus, this SR ensures that one of the running motors automatically switches to low speed upon receipt of the containment cooling engineered safeguards actuation signal and the other running motor trips. To prevent exceeding SW design temperatures, by having two RB fans in service, this SR also ensures that only one RB fan will start on an ES actuation signal. The 24 month Frequency is based on engineering judgment and has been shown to be acceptable through operating experience. See SR 3.6.6.5 and SR 3.6.6.6, above, for further discussion of the basis for the 24 month Frequency.

The SR is modified by a note indicating the SR is not applicable in the identified MODE. This is necessary in order to make the requirements for automatic system response consistent with those for the actuation instrumentation.

SR 3.6.6.8

With the containment spray header isolated and drained of any solution, low pressure air or smoke can be blown through test connections. Performance of this Surveillance demonstrates that each spray nozzle is unobstructed and provides assurance that spray coverage of the containment during an accident is not degraded. Due to the passive nature of the design of the nozzles, a test at 10 year intervals is considered adequate to detect obstruction of the spray nozzles.

SR 3.6.6.9

The BS system suction piping and pumps are normally isolated from the BWST by normally closed suction valves. As such, the suction piping has the potential to develop voids as a result of external system leakage. Maintaining the piping between the BWST and the BS pumps full of water ensures that the system will perform properly, injecting its full capacity into the containment upon demand. This will also prevent water hammer and pump cavitation following an automatic actuation signal. The 31 day Frequency takes into consideration the fact that external BS system leakage is periodically monitored.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS CR 3.6.6.5 (continued)

Verification that the BS suction piping remains full of water is performed by monitoring LPI pump suction pressure (the LPI pumps and BC pumps share a common suction header) to ensure all portions of the BS suction piping remain above atmospheric pressure.

REFERENCES

1. FSAR, Section 1.4.
 2. FSAR, Section 14.2.2.5.9.
 3. FSAR, Section 6.3.
 4. RO-2787 Requirement Outline, Reactor Building Fan Assemblies, Addendum B, February 19, 1971.
 5. ASME, Boiler and Pressure Vessel Code, Section XI.
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**FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NUMBER 50-392/LICENSE NUMBER DPR-72**

ATTACHMENT D

**LICENSE AMENDMENT REQUEST #229
REVISION 0**

**Proposed ITS/ITS Bases
Change Pages - Revision Bars**

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.5.2.6 Verify the flow controllers for the following LPI throttle valves operate properly: a. DHV-110 b. DHV-111	24 months
SR 3.5.2.7 Verify, by visual inspection, each ECCS train reactor building emergency sump suction inlet is not restricted by debris and suction inlet trash racks and screens show no evidence of structural distress or abnormal corrosion.	24 months
SR 3.5.2.8 Verify LPI ECCS piping is full of water.	31 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.1 -----NOTE----- An LPI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually re-aligned to the ECCS mode of operation.</p> <p>-----</p> <p>For all equipment required to be OPERABLE; the following SRs are applicable.</p> <p>SR 3.5.2.1 SR 3.5.2.6 SR 3.5.2.2 SR 3.5.2.7 SR 3.5.2.5 SR 3.5.2.8</p>	<p>In accordance with applicable SRs</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.6.6.7 -----NOTE----- Not applicable in MODE 4. ----- Verify each required containment cooling train starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.8 Verify each spray nozzle is unobstructed.	10 years
SR 3.6.6.9 Verify BS suction piping is full of water.	31 days

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.5.2.5

This Surveillance ensures that these valves are in the proper position to prevent the HPI pump from exceeding its runout limit. This 24 month Frequency is acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment.

SR 3.5.2.6

This Surveillance ensures that the flow controllers for the LPI throttle valves will automatically control the LPI train flow rate in the desired range and prevent LPI pump runout as RCS pressure decreases after a LOCA. The 24 month Frequency is acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment.

SR 3.5.2.7

Periodic inspections of the reactor building emergency sump suction inlet ensure that it is unrestricted and stays in proper operating condition. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and to preserve access to the location. This Frequency has been found to be sufficient to detect abnormal degradation and has been confirmed by operating experience.

SR 3.5.2.8

With the exception of LPI trains in operation, the LPI piping and components are normally isolated from the BWST by normally closed suction valves. As such, the piping has the potential to develop voids as a result of external system leakage. Maintaining the LPI piping and components between the BWST and the RCS full of water ensures that the system will perform properly, injecting its full capacity into the RCS upon demand. This will also prevent water hammer, pump cavitation, and pumping of air into the reactor vessel following an automatic actuation signal or during decay heat removal operation. The 31 day Frequency takes into consideration the fact that external LPI system leakage is periodically monitored.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.5.2.8 (continued)

Verification that the LPI piping and components remain full of water is performed by monitoring LPI pump suction pressure to ensure all portions of the LPI system remain above atmospheric pressure.

REFERENCES

1. 10 CFR 50.46.
2. FSAR, Section 6.1.
3. NRC Memorandum to V. Stello, Jr., from R.L. Baer, "Recommended Interim Revisions to LCOs for ECCS Components," December 1, 1975.
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NOTE

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.6.7 (continued)

approximately in half (motor at low speed). Thus, this SR ensures that one of the running motors automatically switches to low speed upon receipt of the containment cooling engineered safeguards actuation signal and the other running motor trips. To prevent exceeding SW design temperatures, by having two RB fans in service, this SR also ensures that only one RB fan will start on an ES actuation signal. The 24 month Frequency is based on engineering judgment and has been shown to be acceptable through operating experience. See SR 3.6.6.5 and SR 3.6.6.6, above, for further discussion of the basis for the 24 month Frequency.

The SR is modified by a note indicating the SR is not applicable in the identified MODE. This is necessary in order to make the requirements for automatic system response consistent with those for the actuation instrumentation.

SR 3.6.6.8

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SR 3.6.6.9

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(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.6.9 (continued)

Verification that the BS suction piping remains full of water is performed by monitoring LPI pump suction pressure (the LPI pumps and BS pumps share a common suction header) to ensure all portions of the BS suction piping remain above atmospheric pressure.

REFERENCES

1. FSAR, Section 1.4.
 2. FSAR, Section 14.2.2.5.9.
 3. FSAR, Section 6.3.
 4. RO-2787 Requirement Outline, Reactor Building Fan Assemblies, Addendum B, February 19, 1971.
 5. ASME, Boiler and Pressure Vessel Code, Section XI.
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