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January 21, 2014

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2746

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station
Docket Numbers 50-269, 50-270, and 50-287
UFSAR/Selected Licensee Commitments Change

Pursuant to 10CFR 50.71(e), please find attached the latest revision to the Oconee Nuclear Station Selected Licensee Commitments (SLC) Manual. This document constitutes Chapter 16 of the Updated Final Safety Analysis Report (UFSAR).

Any questions regarding this information should be directed to Sandra N. Severance, Regulatory Affairs, at (864) 873-3466.

I certify that I am a duly authorized officer of Duke Energy Carolinas, LLC, and that the information contained herein accurately represents changes made to Chapter 16 of the UFSAR since the previous submittal. I declare under penalty of perjury that the foregoing is true and correct. Executed on January 21, 2014.

Sincerely,

Scott L. Batson
Vice President
Oconee Nuclear Station

Attachment

A053
NRR

cc: Mr. Victor McCree, Regional Administrator
U.S. Nuclear Regulatory Commission, Region II
Marquis One Tower
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, GA 30303-1257

Mr. Richard Guzman, Senior Project Manager
(by electronic mail only)
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Mail Stop O-8C2
Rockville, MD 20852-2746

Mr. Eddy Crowe
Senior Resident Inspector
Oconee Nuclear Station



Re: Oconee Nuclear Station
Selected Licensee Commitments (SLC) Manual Change
Revision Date: 12/1/13

Please replace the corresponding pages in your copy of the Oconee SLC Manual as follows:

REMOVE THESE PAGES

List of Effective Pages (LOEP) 1- 13

SLC Pages 16.9.12-1 thru 22

INSERT THESE PAGES

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SLC Pages 16.9.12-1 thru 18

If you have any questions concerning the contents of this SLC Manual update, contact Sandra Severance (864) 873-3466.

Chris Wasik
Regulatory Affairs Manager

Attachment

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Revised Selected Licensee Commitments Manual Pages

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16.9 AUXILIARY SYSTEMS

16.9.12 Additional Low Pressure Service Water (LPSW) And Siphon Seal Water (SSW) System OPERABILITY Requirements

COMMITMENT The following Structures, Systems and Components (SSCs) shall be OPERABLE:

- a. LPSW-4 ("A" LPI COOLER SHELL OUTLET)
- b. LPSW-5 ("B" LPI COOLER SHELL OUTLET)
- c. LPSW Pump Minimum Flow Recirculation Lines
- d. LPSW-139 (LPSW SUPPLY TO TB NON-ESSENTIAL HDR)
- e. LPSW-251 ("A" LPI COOLER LPSW CONTROL)
- f. LPSW-252 ("B" LPI COOLER LPSW CONTROL)
- g. LPSW flow to each Reactor Building Cooling Unit (RBCU)
- h. LPSW-1054, 1055, 1061, 1062
- i. One required SSW Header
- j. LPSW Pump(s) required for SSW Header OPERABILITY as defined by TS 3.7.7

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. LPSW flowpath through an LPI cooler isolated by a manual valve.	A.1 Declare associated LPI train inoperable.	Immediately
B. LPSW-4 inoperable and closed. <u>OR</u> LPSW-5 inoperable and closed.	B.1 Declare associated LPI train inoperable.	Immediately

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. One required LPSW pump minimum flow recirculation line inoperable.</p> <p><u>OR</u></p> <p>Two required Unit 3 LPSW Pump minimum flow recirculation lines inoperable</p> <p><u>OR</u></p> <p>Two required Unit 1&2 LPSW Pump minimum flow recirculation lines inoperable when two LPSW pumps are required to be OPERABLE by TS 3.7.7.</p>	<p>E.1 Restore required LPSW pump minimum flow recirculation line to OPERABLE status.</p>	<p>72 hours</p>
<p>F. Two or more Unit 1 and 2 LPSW pump minimum recirculation lines inoperable when three LPSW pumps are required to be OPERABLE by TS 3.7.7.</p>	<p>F.1 Declare affected LPSW Pumps inoperable.</p>	<p>Immediately</p>

Additional Low Pressure Service Water (LPSW) and Siphon Seal Water (SSW)
System OPERABILITY Requirements

16.9.12

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>I. 1LPSW-139 inoperable and associated flow path not isolated by a manual valve.</p> <p><u>AND</u></p> <p>2LPSW-139 inoperable and associated flow path not isolated by a manual valve.</p> <p><u>AND</u></p> <p>Total Unit 1 and 2 LPSW non-essential header flow is 10,000 gpm or greater.</p>	<p>I.1 Declare all Unit 1 and 2 LPSW Pumps inoperable.</p>	<p>Immediately</p>
<p>J. LPSW-251 inoperable and not failed open.</p> <p><u>OR</u></p> <p>LPSW-252 inoperable and not failed open.</p>	<p>J.1 Declare associated LPI train inoperable.</p>	<p>Immediately</p>
<p>K. LPSW flow to any RBCU is less than 420 gpm.</p> <p><u>AND</u></p> <p>The LPSW inlet isolation valve for the associated RBCU is not closed.</p>	<p>K.1 Restore acceptable flow to RBCU.</p> <p><u>OR</u></p> <p>K.2.1 Close LPSW inlet isolation valve for the associated RBCU.</p> <p><u>AND</u></p> <p>K.2.2 Enter TS 3.6.5 if required.</p>	<p>7 days</p> <p>7 days</p> <p>Immediately</p>

Additional Low Pressure Service Water (LPSW) and Siphon Seal Water (SSW)
System OPERABILITY Requirements

16.9.12

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>L. LPSW-1054, 1055, 1061, or 1062 not OPERABLE to close by the LPSW Waterhammer Prevention System</p> <p><u>AND</u></p> <p>LPSW-1051, 1054, 1055, and 1058 not closed</p> <p><u>OR</u></p> <p>LPSW-1059, 1061, 1062 and 1065 not closed</p>	<p>L.1 Enter TS 3.6.5 or TS 3.7.7, if required.</p> <p><u>AND</u></p> <p>L.2.1 Restore to OPERABLE status</p> <p><u>OR</u></p> <p>L.2.2.1 Close either LPSW-1051, 1054, 1055, or 1058</p> <p><u>AND</u></p> <p>L.2.2.2 Close either LPSW-1059, 1061, 1062, or 1065</p>	<p>Immediately</p> <p>7 days</p> <p>7 days</p> <p>7 days</p>
<p>M. A and B SSW headers inoperable.</p>	<p>M.1 Declare all ECCW headers inoperable.</p>	<p>Immediately</p>
<p>N. One SSW header inoperable.</p> <p><u>AND</u></p> <p>One required LPSW Pump inoperable on Unit supplying OPERABLE SSW header as defined by TS 3.7.7.</p>	<p>N.1 Restore A and B SSW headers to OPERABLE status.</p> <p><u>OR</u></p> <p>N.2 Restore required LPSW pump to OPERABLE status.</p>	<p>72 hours</p> <p>72 hours</p>

Additional Low Pressure Service Water (LPSW) and Siphon Seal Water (SSW)
System OPERABILITY Requirements

16.9.12

O. Required ACTION and associated Completion Time not met for Condition C, D, E, G, H, or N.	O.1 Be in MODE 3.	12 hours
	<u>AND</u>	
	O.2 Be in MODE 5.	60 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 16.9.12.1	Test LPSW-4, LPSW-5, LPSW-139, and check valves in the SSW headers in accordance with the Inservice testing Program.	In accordance with the Inservice Testing Program
SR 16.9.12.2	Verify that the LPSW pump minimum flow recirculation lines can pass required flow.	24 months
SR 16.9.12.3	Verify that each RBCU that has an open inlet isolation valve has LPSW flow that is 420 gpm or greater.	Every 12 hours
SR 16.9.12.4	Verify LPSW-1054, 1055, 1061, and 1062 are operable and capable of closure when demanded by the LPSW RB Waterhammer Prevention System (WPS)	18 months

BASES

BACKGROUND The Low Pressure Service Water (LPSW) System provides cooling water for normal and emergency services throughout the station. Safety related functions served by this system include the Reactor Building cooling units (RBCUs), Low Pressure Injection (LPI) coolers, and coolers for the High Pressure Injection (HPI) and Emergency Feedwater (EFW) motors. LPSW also provides cooling water for the non-safety related Reactor Building Auxiliary Cooling units (RBAC) and the Reactor Coolant Pump Motors (RCPM).

The Siphon Seal Water (SSW) System consists of two full capacity headers. The "A" SSW header is supplied by the Unit 1 and 2 LPSW system. The Unit 3 LPSW System supplies the "B" SSW header. Each SSW header is capable of providing sealing flow to Unit 1, 2 and 3's ESV pumps.

APPLICABLE SAFETY ANALYSES

Sufficient LPSW System flow is required to meet the acceptance criteria of containment heat removal safety analyses. In addition, LPSW piping inside containment forms a closed loop. The pressure boundary of the RBCU piping and the RCPM piping form a closed loop inside containment and must be maintained to ensure containment integrity following an accident or transient. The RBAC piping has containment isolation valves and the piping inside containment is not acting as the "second barrier" for containment.

The analysis to support Generic Letter 96-06 determined the magnitude of the waterhammer pressure pulses in the LPSW System resulting from column closure and condensation induced waterhammers during Loss of Coolant Accident (LOCA) and Main Steam Line Break (MSLB) events (Refs. 15 and 16). The calculation determined that severe waterhammers could occur that are not bounded by existing analysis during a LOCA/LOOP or MSLB/LOOP scenario if the required LPSW flow or alignment is not maintained to the RBCUs. Later analysis for the LPSW Waterhammer Prevention System (WPS) requires that the piping run be full normally to prevent preexisting voids at the time the WPS actuates. Consistent with past values, 420 gpm through each operating RBCU is required (Ref. 20 and 21) unless LPSW flow through the RBCU is isolated by closing the RBCU inlet isolation valve. There are no waterhammer concerns with the RBCU inlet isolation valve closed and the associated outlet isolation valve open. If an RBCU is hydraulically isolated by closing the inlet and outlet RBCU isolation valves, the isolated piping within containment must be drained or vented to prevent overpressurization during any of the above events. The LPSW piping to and from the RBACs has been separated from the "B" RBCU piping. Waterhammer is also possible in the RBACs if the RBAC Isolation Circuitry is bypassed or not operational.

APPLICABLE
SAFETY
ANALYSES
(continued)

The RBACs contain a total of 16 cooling coils with individual isolation valves. Flow through all RBACs is isolated by closing either LPSW-1051, 1054, 1055, or 1058. Valves LPSW-1054, 1055, 1061, and 1062 are automatically closed upon either actuation of the LPSW RB WPS or actuation of ES Channels 5 & 6. There are no waterhammer concerns when either LPSW-1051, 1054, 1055, or 1058 is closed since flow following an LPSW pump restart is blocked. The RBACs are assumed isolated in the analysis that demonstrates waterhammer prevention in the RBCUs and RCPMs, which is achieved by automatically closing LPSW-1054, 1055, 1061, and 1062 as described above. These valves are not automatically reopened upon restoration of LPSW system pressure.

The SSW System is a support system to the ECCW System. Maintaining the ECCW siphon headers OPERABLE during accident and transient events is an assumption in the accident and transient analysis. The SSW System is required to ensure ECCW siphon header piping remains sufficiently primed to supply siphon flow to the LPSW suction piping.

SSW header OPERABILITY requires that it be supplied from LPSW. OPERABILITY of an ESV pump requires that it be supplied by at least one OPERABLE SSW header. Each SSW header has a non-safety related HPSW backup. Since the HPSW supply is not safety related, HPSW is not credited to supply the SSW system during a design basis accident. If an ESV pump is operated without seal water, degradation can occur within minutes.

COMMITMENT

- LPSW-4 and LPSW-5 are considered OPERABLE when the valves are capable of being throttled from the Control Room.
- LPSW-139 is considered OPERABLE if capable of being closed from the Control Room unless previously closed or isolated.
- LPSW-251 and LPSW-252 are considered OPERABLE when they maintain the capability to fail open either as directed from the Control Room or on a loss of Instrument Air.
- The required LPSW alignment is maintained to each out of service RBCU.
- LPSW flow through each RBCU aligned for flow is 420 gpm or greater to ensure waterhammers are prevented when the LPSW RB Waterhammer Prevention System actuates.
- LPSW-1054, 1055, 1061, and 1062 are required to close upon actuation of the LPSW RB Waterhammer Prevention System (WPS).

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- | | |
|---------------------------|--|
| COMMITMENT
(continued) | <ul style="list-style-type: none">• The required SSW header is considered OPERABLE when it is supplied from the LPSW system.
• LPSW Pump(s) shall be OPERABLE to support OPERABILITY of the required SSW header as defined by TS 3.7.7. |
|---------------------------|--|
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APPLICABILITY	This SLC applies in MODES 1, 2, 3, and 4. This applicability is consistent with the LPSW System OPERABILITY requirements in Technical Specification 3.7.7 and ECCW OPERABILITY requirements in TS 3.7.8. In MODES 5 and 6 the OPERABILITY requirements of the LPSW System are determined by the system it supports.
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ACTIONS

A.1

If the LPSW flowpath through an LPI cooler is isolated due to a closed manual valve, although LPSW pump NPSH and LPSW flow to other safety related loads would be adequate, LPSW flow to the affected LPI cooler would not be sufficient. The affected LPI train shall be declared inoperable immediately.

B.1

During normal operation, LPSW flow is isolated to the LPI coolers with block valves LPSW-4 and LPSW-5 in the closed position. If a LOCA occurs, LPSW-4 and LPSW-5 are required to be opened after Reactor Building Emergency Sump (RBES) recirculation is established. If LPSW-4 or LPSW-5 is closed and not capable of throttling LPSW flow, then LPSW pump NPSH and LPSW flow to the other safety related loads would be adequate. However, the LPSW flow to the affected LPI cooler would not be adequate. Thus, if LPSW-4 or LPSW-5 is closed and do not have throttle capability, then the affected LPI train shall be declared inoperable immediately.

C.1, C.2, D.1, D.2

If LPSW-4 or LPSW-5 are not closed and do not have throttle capability, OPERABILITY of all required LPSW pumps shall be verified immediately to ensure adequate LPSW pump NPSH and flow to safety related loads. In addition, LPSW-4 and/or LPSW-5 must be restored to OPERABLE status within 72 hours. The 72 hour completion time is consistent with TS 3.7.7. For Units 1 & 2, both units would be affected if a valve on either unit is inoperable. In Condition C or D, LPSW pump NPSH and LPSW flow to the safety-related loads may be inadequate. If a single failure of an LPSW pump is not assumed, then sufficient LPSW flow to, and NPSH for, the safety related loads would exist.

ACTIONS
(continued)

E.1

LPSW-4 and LPSW-5 are not actuated by an ES signal. By maintaining isolation of LPSW flow to the LPI Coolers during the initial phase of a LOCA, the potential exists for the LPSW pumps to be operated below the manufacturer's recommended minimum continuous flow rate. If all LPSW pumps successfully start and operate during the event, the potential exists for a stronger pump to deadhead a weaker pump during low flow conditions. To avoid damaging a pump due to minimum flow concerns, minimum flow recirculation piping exists for each LPSW pump. The minimum flow recirculation lines ensure the OPERABILITY of a deadheaded pump until LPSW-4 or LPSW-5 are open on the LOCA unit after RBES recirculation is established. If an LPSW pump's minimum flow recirculation line is inoperable, the LPSW system cannot withstand a single failure and still be capable of fulfilling its safety function. Thus ACTION must be taken to restore the recirculation line to OPERABLE status within 72 hours which is consistent with TS 3.7.7.

If both Unit 3 LPSW pump minimum flow recirculation lines are inoperable, the 72 hour Completion Time is still appropriate because the stronger LPSW pump will always have sufficient flow and will maintain operability. Likewise, if the Unit 1&2 LPSW system is in a condition that only requires two OPERABLE LPSW pumps per TS 3.7.7, the minimum flow recirculation lines associated with both OPERABLE pumps may be simultaneously inoperable for a duration of 72 hours. LPSW pump minimum flow recirculation lines are not required to be OPERABLE if the associated pumps are inoperable.

F.1

If Unit 1 and 2 are in a MODE that requires three OPERABLE LPSW pumps (per TS 3.7.7) and two or more minimum flow recirculation lines are out-of-service, the affected LPSW Pumps shall be declared inoperable immediately.

G.1, G2

In the event of a LOCA, LPSW-139 is credited to close after RBES Recirculation is established, but prior to opening valves LPSW-4 and LPSW-5. Since the Unit 1 & 2 LPSW system is shared, both 1LPSW-139 and 2LPSW-139 shall be closed if the non-LOCA unit has tripped due to a concurrent Loss-Of-Offsite-Power (LOOP). Closing LPSW-139 maintains sufficient LPSW pump NPSH and adequate LPSW flow to the safety related loads.

ACTIONS
(continued)

If LPSW-139 is not capable of closing and a single failure of an LPSW pump occurs, LPSW pump flow to the safety related loads might be insufficient and LPSW pump NPSH may be inadequate. In this Condition, all required LPSW pumps shall be verified OPERABLE immediately and LPSW-139 shall be restored to OPERABLE status within 72 hours. Since the Unit 1 & 2 LPSW system is shared and 1LPSW-139 and 2LPSW-139 are normally open, the 72 hour Completion Time applies to both Units 1 and 2 if either 1LPSW-139 or 2LPSW-139 is inoperable.

If all required LPSW pumps are available, LPSW pump NPSH and LPSW flow to the safety-related loads will be sufficient. If 1LPSW-139 or 2LPSW-139 is closed or isolated by system block valves, e.g. for maintenance during a unit outage, remote closure capability of the valve is not required.

H.1, H.2

If both 1LPSW-139 and 2LPSW-139 are inoperable and not isolated by a manual valve, and total Unit 1 & 2 LPSW non-essential header flow is less than 10,000 gpm, OPERABILITY of all required LPSW pumps shall be verified immediately to ensure that there will be sufficient LPSW pump flow to, and NPSH for safety related loads. Additionally, 1LPSW-139 and 2LPSW-139 must be restored to OPERABLE status within the stated 72 hour Completion Time.

I.1

If 1LPSW-139 and 2LPSW-139 are inoperable and not isolated by a manual valve, and total Unit 1 & 2 LPSW non-essential header flow is greater than 10,000 gpm, sufficient LPSW pump flow to, and NPSH for the safety related loads would not be available, even with all three LPSW pumps available. Consequently, all of the Unit 1 and 2 LPSW pumps shall be declared inoperable immediately.

ACTIONS
(continued)

J.1

Air operated valves LPSW-251 and LPSW-252 are the normal LPI cooler flow control valves. The control valves fail open on a loss of Instrument Air (IA). If a LOCA occurs, IA and Auxiliary Instrument Air (AIA) are assumed unavailable since they are not safety related. With LPSW-251 and LPSW-252 failed open, LPSW-4 and LPSW-5 are credited for throttling LPI cooler shell side flow to maintain sufficient LPSW pump Net Positive Suction Head (NPSH) and adequate LPSW flow to the safety related loads. LPSW-251 and LPSW-252 may also be failed open by placing the Fail Switch in the FAIL OPEN position or by isolating instrument air to the valve actuator and bleeding air pressure from the actuator. Should either LPSW-251 or LPSW-252 become inoperable and not fail open, the associated LPI train shall be declared inoperable immediately.

K.1, K.2

If a LOCA/LOOP or MSLB/LOOP were to occur while in this Condition, a waterhammer could occur; however, the piping is not expected to fail. The Completion Time is consistent with TS 3.7.7 for conditions that have the LPSW WPS inoperable. A waterhammer could occur upon LPSW pump restart following a LOOP due to the pipe not running full when operating at reduced flow rates. When the pipe does not run full, voids can form prior to WPS actuation. Consequently, either the affected RBCU inlet isolation valve must be closed, or the flow rate restored to a value greater than the minimum required value. Isolation of flow to a RBCU could make it inoperable and TS 3.6.5 would need to be entered.

When both the inlet and outlet RBCU piping is isolated, the RBCU isolated piping must be vented to containment or drained to preclude thermal over-pressurization.

ACTIONS
(continued)

L.1, L.2

If a LOCA/LOOP or MSLB/LOOP were to occur while in this Condition, a waterhammer could occur; however, the piping is not expected to fail. The RBACs are assumed to be isolated from the RBCU and RCPM piping (in the thermal-hydraulic analysis of the LPSW system response during actuation of the LPSW WPS) and LPSW-1054, 1055, 1061, and 1062 perform that function. Thus, these valves must be capable of closing upon actuation of the LPSW WPS. If these valves are not capable of closure and the RBAC's are aligned to LPSW, the LPSW WPS may be inoperable since the system is in an unanalyzed configuration. The Completion Time is consistent with TS 3.7.7 for conditions that have the LPSW WPS inoperable. Isolating the supply header to the RBAC by closing either LPSW-1051, 1054, 1055, or 1058 prevents the possibility of waterhammer. Closing LPSW-1059, 1061, 1062, or 1065 isolates the RBAC return to make the flow path hydraulically isolated from the RBCU/RCPM flow path in order to be consistent with the analysis. Required Action L.1 requires entering the applicable TSs (TS 3.6.5 or TS 3.7.7) immediately, if required, as the WPS for the RBCUs may not be OPERABLE.

M.1

One SSW header shall be OPERABLE to support the ESV pumps and ECCW siphon headers. If no SSW header is OPERABLE, all ECCW siphon headers are inoperable.

N.1, N.2

At least one SSW header is required to be OPERABLE and aligned to the ESV pumps. TS 3.7.7 requires OPERABILITY of the LPSW Pumps and allows one required LPSW pump on each LPSW System to be inoperable for a limited duration. OPERABILITY of the SSW headers requires OPERABILITY of the LPSW Pumps as allowed by TS 3.7.7. If one required LPSW pump is inoperable on the LPSW System supplying the required SSW header and only one SSW header is OPERABLE, the ESV system is not single failure proof. ACTION must be taken to either restore the inoperable SSW header to OPERABLE status or restore the required LPSW Pump to OPERABLE status within 72 hours. Reference Bases table 16.9.12-1. The 72-hour Completion Time is consistent with the Completion Times for LPSW and ESV. If both SSW headers are OPERABLE and aligned to each ESV pump and one required LPSW pump is out of service on the Unit 1 and 2 and/or Unit 3 LPSW System, the SSW supply to the ESV pumps is single failure proof and no Condition entry is required.

ACTIONS
(continued)

O.1, O.2

If the Required ACTION and associated Completion Times of Conditions C, D, E, G, H or O are not met, the unit must be placed in a MODE in which the SLC does not apply, i.e., in at least MODE 3 within 12 hours and MODE 5 within 60 hours. These Completion Times are consistent with the Completion Times for LPSW and ESV.

SURVEILLANCE
REQUIREMENTS

SR 16.9.12.1

This SR requires that LPSW-4, LPSW-5, LPSW-139, and check valves in the SSW headers be tested per Oconee's ASME Section XI IST Program. Testing under this program is adequate to assure OPERABILITY.

SR 16.9.12.2

This SR requires that the LPSW pump minimum flow recirculation lines be tested every 24 months. A 24 month frequency is adequate to ensure significant degradation has not occurred due to service water related fouling.

SR 16.9.12.3

This SR requires that LPSW flow to each RBCU that is not isolated from LPSW flow be verified once per shift to be ≥ 420 gpm. The inlet or outlet LPSW flow gauge may be used.

This surveillance can also be met by verifying one of the following system alignments:

1. The RBCU inlet and outlet LPSW motor operated isolation valves are full open and the required LPSW pumps are in operation.
2. The RBCU inlet LPSW isolation valve is closed and the outlet isolation valve is open.
3. The RBCU inlet and outlet LPSW isolation valves are closed with the RBCU piping vented to containment or drained. If the RBCU outlet is isolated with its ES actuated valve, its breaker shall be open to prevent the valve from automatically opening on ES.

This frequency is adequate to ensure the required alignment is maintained.

SURVEILLANCE SR 16.9.12.4
REQUIREMENTS

(continued)

Ensure that LPSW-1054, 1055, 1061, and 1062 are operable to close when demanded by the LPSW RB Waterhammer Prevention System (WPS). This ensures that the RBAC's are protected from a waterhammer following a LOOP, MSLB/LOOP, and LOCA/LOOP as well as indirectly protecting the RBCU's by ensuring the system configuration is consistent with the analysis [Ref. 21]. The frequency of 18 months is judged sufficient based on similar valves in similar service.

REFERENCES

1. OSS-0254.00-00-1039, Design Basis Specification for the Low Pressure Service Water System, rev. 26.
 2. OSC-2280, LPSW Pump NPSH and Minimum Required Lake Level, rev. 16.
 3. OSC-4672, Unit 1&2 LPSW System Response to a Large Break LOCA Using a Benchmarked Computer Hydraulic Model, rev. 9
 4. OSC-4489, Predicted Unit 3 LPSW System Response to a Large Break LOCA Using a Benchmarked Computer Hydraulic Model, rev. 7.
 5. PT/1/A/0251/023, LPSW System Flow Test, performed on 11/16/97.
 6. PT/2/A/0251/023, LPSW System Flow Test, performed on 4/20/96.
 7. PT/3/A/0251/023, LPSW System Flow Test, performed on 1/19/97.
 8. PT/1,3/A/0251/01, LPSW Pump Test.
 9. TS 3.5.3, 3.7.7 and 3.7.8.
 10. Oconee UFSAR Section 9.2.2, 12/31/02 update.
 11. Letter from J. W. Hampton, (DPC), to USNRC, dated June 6, 1996, Proposed Technical Specification amendment for LPSW-4, -5.
 12. NRC Safety Evaluation Report, dated August 19, 1996, Technical Specification Amendment 217/217/214.
 13. Deleted
 14. OSC-7445.05, Waterhammer Analysis of Reactor Building Cooling Units, rev. 0.
 15. OSC-7445.06, Waterhammer Analysis of Reactor Building Cooling Units, rev. 0.
 16. Letter from Altran Corporation to Timothy Brown dated 12/30/98, "Letter Report: Response to Additional Items for Waterhammer."
 17. OSC-5409 rev. 7, Single Failure Analysis of the ECCW System Supply to the LPSW System.
 18. Deleted
 19. Deleted
 20. OSC-8144, Mechanical Design Input Calculation for NSM ON-x3117.
 21. OSC-9049, Thermal-Hydraulic Analysis of LPSW RB Waterhammer Prevention System with 15 psig Setpoint
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TABLE 16.9.12-1
Operability Status of SSW Headers

	Both SSW Headers Operable	"A" SSW Header Inoperable	"B" SSW Header Inoperable
One Required LPSW Pump Inoperable on Unit 1 and 2	<ul style="list-style-type: none"> 72 hr Required Action Completion Time on Unit 1 and 2 per TS 3.7.7. 	<ul style="list-style-type: none"> 72 hr Required Action Completion Time on Unit 1 and 2 per TS 3.7.7. 	<ul style="list-style-type: none"> 72 hr Required Action Completion Time on Unit 1 and 2 per TS 3.7.7. 72 hr Required Action Completion Time on Unit 1, 2, and 3, per this SLC.
One Required LPSW Pump Inoperable on Unit 3	<ul style="list-style-type: none"> 72 hr Required Action Completion Time on Unit 3 per TS 3.7.7. 	<ul style="list-style-type: none"> 72 hr Required Action Completion Time on Unit 3 per TS 3.7.7. 72 hr Required Action Completion Time on Unit 1, 2, and 3, per this SLC. 	<ul style="list-style-type: none"> 72 hr Required Action Completion Time on Unit 3 per TS 3.7.7.

NOTE: Table assumes Unit 1, 2, and 3 are in Mode 1, 2, 3, or 4.