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rev. 6/17/94

SUBJECT: Forwards revs to "Selected Licensee Commitment Manual,"
 Section 16.9.7 to eliminate level required for gravity flow.

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DUKE POWER

May 5, 1994

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Oconee Nuclear Station
Docket No. 50-269, -270, -287
Selected Licensee Commitments Manual (SLC)

Gentlemen:

Pursuant to 10 CFR 50.4 and 50.71, please find attached 7 copies of the latest revisions to the Oconee Selected Licensee Commitments Manual. The SLC Manual is Chapter 16.0 to the Oconee FSAR. This manual is meant to contain commitments and other station issues that we believe warrant higher control, but are not appropriate in the Technical Specifications (TS). Instead of being updated with the annual FSAR Update, the SLC Manual will be updated monthly as needed during the year.

Very truly yours,

J.W. Hampton
for J. W. Hampton

CMB/cmb
Attachment

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Regional Administrator, Region II

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Good

May 5, 1994

To: Manual Holders

Subject: Oconee SLC Revision

This revision to the SLC Manual revises SLC Section 16.9.7 to eliminate the level required for gravity flow.

Please update your copy of this manual as follows:

Remove These Pages

LOEP 4

16.9-20 thru 16.9-24

Insert These Pages:

LOEP 4

16.9-20 thru 16.9-24

Any questions concerning this revision may be directed to Dave Patterson at 885-3297.

Dave Patterson
Regulatory Compliance

By: Conice Breazeale
Regulatory Compliance

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16.9 AUXILIARY SYSTEMS

16.9.7 KEOWEE LAKE LEVEL

COMMITMENT

Ensure the proper requirements are met for the following lake Keowee level ranges.

APPLICABILITY: Maintain level to ensure operability of specified systems and/or components.

NOTE: An instrument error of ± 1.15 ft has been applied to lake levels identified in this SLC. This is based on control room indicator or computer point being used to verify level. Keowee personnel may be contacted to determine absolute lake level. Levels identified as (abs) are absolute values without instrument error included.

<u>LAKE LEVEL</u>	<u>REQUIRED ACTION</u>	<u>REQUIRED ACTION NOT MET</u>
A. Lake level ≥ 799.25 ft. (798.1 abs)	A.1 Verify at least two sources of CCW are available by <u>gravity</u> flow to the CCW cross-over piping. The two sources must come from different Oconee Units.	A.1.1 If only one gravity source is available, then the LPSW system cannot withstand a single failure. Enter a 24 hour LCO per T.S. 3.3.7. A.1.2 If no gravity sources are available, then declare the LPSW system inoperable. Enter T.S. 3.0.
B. Lake level < 799.25 ft. (798.1 abs)	B.1 Verify at least two sources of CCW are available by <u>siphon</u> flow to the CCW cross-over piping. The two sources must come from different Oconee Units. To ensure the sources will siphon flow to the CCW crossover piping, the CCW intake piping must be maintained water solid. For any unit to be considered a source, at least 3 CCW pumps <u>shall</u> be running.	B.1.1 If only one siphon assisted source is available, then the LPSW system cannot withstand a single failure. Enter a 24 hour LCO per T.S. 3.3.7. B.1.2 If no siphon assisted sources are available, then declare the LPSW system inoperable. Enter T.S. 3.0.

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LAKE LEVEL

REQUIRED ACTION

REQUIRED ACTION NOT MET

B. (Continued)
 Lake level
 < 799.25 ft.
 (798.1 abs)

B.2 For any Oconee unit with an RCS temperature \geq 250 °F, verify at least 3 CCW pumps are running to ensure the flow through the condenser portion of the ECCW (second siphon) is operable.

B.2.1 Declare the ECCW system inoperable per T.S. 3.4.5 on the applicable Oconee unit.

C. Lake level
 < 796.65 ft.
 (795.5 abs)

C.1 Declare the Keowee Step-up Transformer Mulsifyre inoperable
 AND
 Refer to SLC 16.9.2 to establish required firewatch.

C.1.1 Notify Compliance of the need to meet the reporting requirements of SLC 16.9.2.

D. Lake level
 < 790.15 ft.
 (789 abs)

D.1 Verify at least two sources of CCW are available by siphon flow to the CCW crossover piping. The two sources must come from different Oconee Units. To ensure the sources will siphon flow to the CCW crossover piping, the CCW intake piping must be maintained water solid. For any unit to be considered a source, all 4 CCW pumps shall be running.

D.1.1 If only one siphon assisted source is available, then the LPSW system cannot withstand a single failure. Enter a 24 hour LCO per T.S. 3.3.7.

D.1.2 If no siphon assisted sources are available, then declare the LPSW system inoperable. Enter T.S. 3.0.

D.2 For any Oconee unit with an RCS temperature \geq 250 °F, verify all 4 CCW pumps are running to ensure the flow through the condenser portion of the ECCW (second siphon) is operable.

D.2.1 Declare the ECCW system inoperable per T.S. 3.4.5 on the applicable Oconee unit.

E. Lake level
 < 787.40 ft.
 (786.25 abs)

E.1 Prior to lake level decreasing below 787.40 close valves (1)(2) 3CCW-319 and (1)(2) 3CCW-320

E.1.1 Declare the affected unit unavailable as a siphon assisted source. Refer to item D. above.

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<u>LAKE LEVEL</u>	<u>REQUIRED ACTION</u>	<u>REQUIRED ACTION NOT MET</u>
F. Lake level < 785 ft. (783.85 abs)	F.1 Restore lake level to greater than 785.	F.1.1 The LPSW system cannot withstand a single failure. Enter a 24 hour LCO per T.S.3.3.7.

SURVEILLANCE: Keowee Lake Level shall be monitored once per shift.

BASES:

The CCW system provides the suction source to the CCW crossover piping which supplies suction to the LPSW system. Normally this crossover header is aligned to all three Oconee Units and any operating CCW pump can provide adequate flow for the requirements of the LPSW systems for all 3 units. During certain analyzed accident conditions, a loss of power to the CCW pumps for all 3 units must be assumed. This results in a loss of forced flow to the CCW crossover header.

With lake level greater than 799.25, lake water will gravity flow from the intake structure to the CCW crossover piping and provide an adequate suction source to the CCW crossover piping through an idle CCW pump and a single open discharge valve. However, due to a potential single failure, which could close all the CCW discharge valves associated with one Oconee Unit, two Oconee Unit's CCW intake must be available to supply this suction source. With only one CCW source available, the LPSW system cannot withstand a single failure. Therefore, a 24 hour LCO must be entered per T.S. 3.3.7.

With the lake level less than 799.25, gravity flow alone may not provide adequate flow to the CCW crossover piping. Because of this, siphon flow must be established. To ensure a siphon flowpath will be established, at least one unit's CCW piping from the intake structure to the CCW crossover, must be maintained water solid. For lake levels between 799.25 and 790.15, this is assured by maintaining at least three CCW pumps running for each Oconee Unit being used as a source. In the event lake level falls below 790.15, the "water solid" CCW pipe requirement can be met by running all four CCW pumps on an operating Oconee Unit. Again, due to a potential single failure associated with the CCW discharge valves, two Oconee Units should be aligned to supply siphon assisted flow to the CCW crossover piping. A 24 hour LCO should be entered per T.S. 3.3.7 if only one source is available.

The minimum number of running CCW pumps required to provide siphon flow to the CCW crossover piping as described above will also ensure operability of siphon flow through the condenser, also known as the "second siphon". If any Oconee Unit fails to maintain the minimum number of CCW pumps running when the RCS is heated above 250°F as described in items B and D,

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then the ECCW system for that unit must be declared inoperable per Technical Specification 3.4.5.

Should lake level fall below 796.65, the Keowee main Step-up Transformer Mulsifyre system may not provide the required flowrates. For this reason, the Mulsifyre should be declared inoperable and the appropriate compensatory actions taken.

Should lake level fall below 787.40, a postulated pipe break (due to a seismic event) downstream of valves (1)(2)3CCW-319 and (1)(2)3CCW-320 could cause a loss of the siphon supply to the CCW crossover for any unit which has these valves open. For this reason, it should be verified that the two units being utilized for meeting the requirements of D.1 have their respective Radwaste supply valves closed prior to lake level decreasing below 787.40.

With lake level below 785, the LPSW pumps could experience inadequate NPSH with siphon flow from the CCW intake. Calculations show this could occur if a single failure causes the minimum number of LPSW pumps (one for Unit 3 or two for the shared Unit 1 and 2 systems) to be available during a design basis event. Therefore, the LPSW system must be considered unable to withstand a single failure for lake level below 785 and a 24 hour LCO must be entered per T.S. 3.3.7. Action should be initiated to raise and maintain Keowee lake level >785. The level of 785 for LPSW system operability is based upon testing performed to determine the level required to ensure adequate NPSH to the LPSW pumps during worst case accident configurations. This testing in conjunction with flow model calculations determined that this lake level would be sufficient to maintain the LPSW systems operable, provided additional steps as identified by procedural guidance to the operators were utilized.

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REFERENCES:

1. PIR 0-092-0535
2. Calculation OSC-5018, Rev. 1
3. Units 1 and 2 LPSW System Flow Test, TT/L/A/0251/21
4. CCW Design Basis Document
5. Calculation OSC-2895, Rev. 3
6. Technical Specification 3.7
7. Calculation OSC-5325
8. PIR-4-090-0109
9. PIP-7-093-0384
10. Calculation OSC-5304
11. Calculation OSC-5022, Rev. 1
12. Calculation OSC-2280, Rev. 4
13. Technical Specification 3.0
14. Technical Specification 3.3.7
15. Calculation OSC-5461

STATION MANAGER APPROVAL H. B. Brown / JBR DATE 11-15-93