ITS Section 3.1

ID 248

Subject: Revised CTS markup for ITS 3.1.3 to replace incorrect annotation of M20 with M5.

Specification 3.1.3

(A1) <except as marked>

Supp 5

LCO + App.

3.1.3

~~3.1.7~~ Moderator Temperature Coefficient (MTC) of Reactivity — (M5)

Specification

The moderator temperature coefficient shall be maintained within the limits specified in the COLR. The max. pos. limit shall be ~~not be positive~~ at power levels above 95 percent of rated power.

≤ 0.0 Δk/k/°F

Add MODES 1 & 2 — (M5)

Bases

A non-positive moderator coefficient at power levels above 95% or rated power is specified such that the maximum clad temperatures will not exceed the Final Acceptance Criteria based on LOCA analyses. Below 95% of rated power the Final Acceptance Criteria will not be exceeded with a positive moderator temperature coefficient of $+0.9 \times 10^{-4}$ Δk/k/°F corrected to 95% rated power. All other accident analyses as reported in the FSAR have been performed for a range of moderator temperature coefficients including $+0.9 \times 10^{-4}$ Δk/k°F. The moderator coefficient is expected to be zero or negative prior to completion of startup tests. (A2)

When the hot zero power value is corrected to obtain the hot full power value, the following corrections will be applied.

A. Uncertainty in isothermal measurement

The measured moderator temperature coefficient will contain uncertainty on the account of the following:

1. ±0.2°F in the ΔT of the base and perturbed conditions.

2. Uncertainty in the reactivity measurement of $\pm 0.1 \times 10^{-4}$ Δk/k.

Proper corrections will be added for the above conditions to result in a conservative moderator coefficient.

B. Doppler coefficient at hot zero power

During the isothermal moderator coefficient measurement at hot zero power, the fuel temperature will increase by the same amount as the moderator. The measured temperature coefficient must be increased by 0.16×10^{-4} (Δk/k)/°F to obtain pure moderator temperature coefficient.

C. Moderator temperature change

The hot zero power measurement must be reduced by $.09 \times 10^{-4}$ (Δk/k)/°F. This corrects for the difference in water temperature at zero power (532°F) and 15% power (580°F) and for the increased fuel temperature effects at 15% power. Above this power, the average moderator temperature remains 580°F. However, the coefficient, $_m$, must also be adjusted for the interaction of an average moderator temperature with increased fuel temperatures. This correction is $-.001 \times 10^{-4}$ Δ $_m$/ΔT power. It adjusts the 15%

Amendment No. 165 (Unit 1)
Amendment No. 165 (Unit 2)
Amendment No. 162 (Unit 3)
12/11/87

Add ACTION A + SR 3.1.3.1 — (M5)

ITS Section 3.2

ID 249

Subject: Revised DOC L1 and corresponding NSHC, next to last paragraph, to correctly refer to the difference between CTS and ITS as allowing 6 more hours to reduce the nuclear overpower trip setpoints.

Required Action D.2 allows 10 hours for the same action. Therefore, ITS
5 allows 6 more hours to reduce the nuclear overpower trip setpoints.

The 10 hour Completion Times for reducing nuclear overpower trip setpoints when QPT limits are exceed are considered appropriate in light of the 2 hour Completion Times associated with ITS Required Actions A.1, C.1 and D.1 and their required reduction in THERMAL POWER. The adoption of the 4 to 6 additional hours provides sufficient time for an orderly execution of the tasks associated with Required Actions A.1 and A.2, B.1 and B.2, and C.1 and C.2. The proposed change is consistent with the NUREG.

L2 CTS 3.5.2.4.g requires quadrant power tilt (QPT) to be monitored on a minimum frequency of once every 2 hours. ITS SR 3.2.3.1 requires QPT verification every 7 days, and when QPT has been restored to less than or equal to the steady state limit, 1 hour for 12 consecutive hours, or until verified acceptable at $\geq$ 95% RTP. Checking the QPT indication every 7 days ensures that the operator can determine whether the plant computer software and the Incore Detector System inputs for monitoring QPT are functioning properly and takes into account other information and alarms available to the operator in the Control Room. Performing the SR at the 7 day Frequency allows QPT mechanisms, such as xenon redistribution, burnup gradients, and CONTROL ROD drive mechanism malfunctions, which can cause slow development of a QPT, to be detected. Following restoration of the QPT to within the steady state limit, operation at $\geq$ 95% RTP may proceed provided the QPT is determined to remain within the steady state limit at the increased THERMAL POWER level. In case QPT exceeds the steady state limit for more than 24 hours or exceeds the transient limit (Condition A, B, or D), the potential for xenon redistribution is greater. Therefore, the QPT is monitored for 12 consecutive hourly intervals to determine whether the period of any oscillation due to xenon redistribution would cause the QPT to exceed the steady state limit again. This change is consistent with the NUREG.

L3 The CTS 3.5.2.4.a & g applicability for the CTS Quadrant Power Tilt is "during power operation above 15% of rated power." The ITS LCO 3.2.4 applicability is 20% RTP. This is less restrictive since the unit is allowed to operate at a slightly higher power level prior to imposing QPT limits. Both of these Applicabilities are based on the lower mode of operability of the incore detector system. Operation at or below 20% RTP with QPT not imposed is acceptable because the worst case QPT does not result in an LHR high enough to cause violation of the LOCA LHR limit or the initial condition DNB allowable peaking limit during accidents initiated from this power level. The proposed change is consistent with the NUREG.

to 65.5% (CTS 3.5.2.4.d.3). CTS Completion Times are considered to be in series. Therefore, CTS allows a total of 8 hours to reduce the nuclear overpower trip setpoints. ITS 3.2.3 ACTION B and C provide comparable requirements. ACTION B allows 30 minutes to reduce THERMAL POWER ≥ 2% RTP from ALLOWABLE THERMAL POWER for each 1% of QPT greater than the steady state limit and 2 hours to restore the limit. Required Action C.2 allows 10 hours to reduce the nuclear overpower trip setpoints when the Required Action and associated Completion Time of Condition A or B are not met. Therefore, ITS allows 4 more hours to reduce the nuclear overpower trip setpoints.

CTS 3.5.2.4.e.1 allows a total of 4 hours to reduce the nuclear overpower trip setpoints to 65.5% of the allowable thermal power when QPT exceeds the transient limit but is less than the maximum limit. ITS Required Action D.2 allows 10 hours for the same
5 action. Therefore, ITS allows 6 more hours to reduce the nuclear overpower trip setpoints.

The 10 hour Completion Times for reducing nuclear overpower trip setpoints when QPT limits are exceed are considered appropriate in light of the 2 hour Completion Times associated with ITS Required Actions A.1, C.1 and D.1 and their required reduction in THERMAL POWER. The adoption of the 4 to 6 additional hours provides sufficient time for an orderly execution of the tasks associated with Required Actions A.1 and A.2, B.1 and B.2, and C.1 and C.2. The proposed change is consistent with the NUREG.

In accordance with the criteria set forth in 10 CFR 50.92, Duke Energy has evaluated this proposed Technical Specification change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion.

1. **Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?**

An extension of the Completion Time for a Required Action does not result in any hardware changes. The Completion Time for performance also does not significantly increase the probability of occurrence for initiation of any analyzed event since the function of the equipment, or limit for the parameter, does not change (and therefore any initiation scenarios are not changed) and the proposed Completion Time extension is short (and therefore limits the impact on probability). Also, an extension of the Completion Time provides additional opportunity to restore compliance with the requirements and avoid the increased potential for a transient during the shutdown process. Further, the Completion Time for performance of Required Actions does not significantly increase the consequences of an accident because a

ITS Section 3.2

ID 259

Subject: Revised ITS 3.2.1 Condition C to extra "or" in condition statement.

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. Regulating rod groups positioned in restricted or unacceptable region.	B.1	--------NOTE-------- Not applicable to regulating rod groups positioned in the restricted region. ---------- Initiate boration to restore SDM to within the limits specified in the COLR.	15 minutes
	AND		
	B.2.1	Restore regulating rod groups to within acceptable region.	2 hours
	OR		
	B.2.2	Reduce THERMAL POWER to less than or equal to THERMAL POWER allowed by regulating rod group position limits.	2 hours
C. Required Action and associated Completion Time of Condition A or B not met.	C.1	Be in MODE 3.	12 hours

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ITS Section 3.2

ID 271

Subject: Revised DOC LA1 to indicate that changes to COLR are subject to the control described in ITS Chapter 5 consistent with other similar DOCs and Attachment 7 to the ITS Cover Letter.

TECHNICAL CHANGES - REMOVAL OF DETAILS

LA1 The regulating rod group overlap limit currently provided in CTS 3.5.2.5.b is moved to the COLR. This information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation or Surveillance Requirement, but rather describes very specific setpoints which can only be changed on a cycle specific bases. Since these details are likely to change on a refueling cycle frequency, they are being moved to a licensee controlled document. Placing these details in controlled documents provides adequate assurance that they will be maintained. The COLR is subject to the control described in ITS Chapter 5, "Administrative Controls," which ensure any changes to the COLR are appropriately reviewed. This change is consistent with the NUREG.

LA2 CTS 4.1.5, which requires a power map be made to verify expect power distributions at periodic intervals using the incore instrumentation system, is moved to the UFSAR Chapter 16. This detail is not required to be in the ITS to provide adequate protection of the public health and safety, since the ITS still retains power distribution requirements. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the Technical Specification requirements. Furthermore, NRC and utility resources associated with processing license amendments to these requirements will be reduced. Therefore, relocation of this detail is acceptable. Changes to the UFSAR Chapter 16 are controlled by the provisions of 10 CFR 50.59.

LA3 The specific value for SDM in CTS 3.1.11 is relocated to the COLR. SDM is a cycle specific variable, similar to other variables, such as, Moderator Temperature Coefficient, Rod Position Limits, AXIAL POWER IMBALANCE operating limits, and QUADRANT POWER TILT limits all of which may be contained in the COLR. Relocation of the specific SDM value provides core design and operational flexibility that can be used for improved fuel management and to solve plant specific issues. The COLR is subject to the control described in ITS Chapter 5, "Administrative Controls," which ensure any changes to the COLR are appropriately reviewed. This change is consistent with the NUREG as modified by TSTF-009, Revision 1.

ITS Section 3.3

ID 239

Subject: Revised ITS Table 3.3.1-1 to remove Note d per NRC request since TSTF not yet approved for this change.

Table 3.3.1-1 (page 1 of 1)
Reactor Protective System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	CONDITIONS REFERENCED FROM REQUIRED ACTION B.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Nuclear Overpower –				
5 a. High Setpoint	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.4 SR 3.3.1.5	≤ 105.5% RTP
b. Low Setpoint	2[b],3[b] 4[b],5[b]	D	SR 3.3.1.1 SR 3.3.1.5	≤ 5% RTP
2. RCS High Outlet Temperature	1,2	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 618°F
5 3. RCS High Pressure	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 2355 psig
4. RCS Low Pressure	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≥ 1800 psig
5. RCS Variable Low Pressure	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	As specified in the COLR
6. Reactor Building High Pressure	1,2,3[c]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 4 psig
7. Reactor Coolant Pump to Power	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	>2% RTP with ≤ 2 pumps operating
8. Nuclear Overpower Flux/Flow Imbalance	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.3 SR 3.3.1.4 SR 3.3.1.5	As specified in the COLR
9. Main Turbine Trip (Hydraulic Fluid Pressure)	≥ 30% RTP	E	SR 3.3.1.4 SR 3.3.1.5	≥ 800 psig
10. Loss of Main Feedwater Pumps (Hydraulic Oil Pressure)	≥ 2% RTP	F	SR 3.3.1.4 SR 3.3.1.5	≥ 75 psig
11. Shutdown Bypass RCS High Pressure	2[b],3[b] 4[b],5[b]	D	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 1720 psig

(a) When not in shutdown bypass operation.

(b) During shutdown bypass operation with any CRD trip breakers in the closed position and the CRD System capable of rod withdrawal.

(c) With any CRD trip breaker in the closed position and the CRD System capable of rod withdrawal.

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BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

General Discussion (continued)

assist the ESPS in providing acceptable consequences during accidents.

1a. Nuclear Overpower – High Setpoint;

2. RCS High Outlet Temperature;

3. RCS High Pressure;

4. RCS Low Pressure;

5. RCS Variable Low Pressure;

6. Reactor Building High Pressure;

7. Reactor Coolant Pump to Power; and

8. Nuclear Overpower Flux/Flow Imbalance.

Functions 1, 3, 4, 5, 7, and 8 just listed may be bypassed in MODE 2 when RCS pressure is below 1720 psig, provided the Shutdown Bypass RCS High Pressure and the Nuclear Overpower – Low setpoint trip are placed in operation. Under these conditions, the Shutdown Bypass RCS High Pressure trip and the Nuclear Overpower – Low setpoint trip act to prevent unit conditions from reaching a point where actuation of these Functions is necessary.

The Main Turbine Trip (Hydraulic Fluid Pressure) Function is required to be OPERABLE in MODE 1 at $\geq$ 30% RTP. The Loss of Main Feedwater Pumps (Hydraulic Oil Pressure) Function is required to be OPERABLE in MODE 1 and in MODE 2 at $\geq$ 2% RTP. Analyses presented in BAW-1893 (Ref. 6) have shown that for operation below these power levels, these trips are not necessary to minimize challenges to the PORVs as required by NUREG-0737 (Ref. 5).

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(continued)

3.5 INSTRUMENTATION SYSTEMS

3.5.1 Operation Safety Instrumentation

A1

Add LCO 3.3.1, T 3.3.1-1 Applicabilities for Funct. 1.6 + 11

M2

Add T 3.3.1-1 Notes C

Applicability

Applies to unit instrumentation and control systems.

Objective

To delineate the conditions of the unit instrumentation and safety circuits necessary to assure reactor safety

Specifications

Change Applic for Funct. 9+10 to ≥ 30% + 2% respectively

L2

Supp 5

LCO + Applic.

3.5.1.1 The reactor shall not be in a startup mode or in a critical state unless the requirements of Table 3.5.1-1, Column C are met, with the exception of Items 20, 21, and 22. For Items 20, 21, and 22, the requirements are specified in Specification 3.5.7.

MODES 1+2

A1

3.5.1.2 In the event that the number of protective channels operable falls below the limit given under Table 3.5.1-1, Column C; operation shall be limited as specified in Column D.

A1

ACT B

3.5.1.3 For on-line testing or in the event of a protective instrument or channel failure, a key-operated channel bypass switch associated with each reactor protective channel may be used to lock the channel trip relay in the untripped state. Status of the untripped state shall be indicated by a light. Only one channel bypass key shall be accessible for use in the control room. Only one channel shall be locked in this untripped state or contain a dummy bistable at any one time.

3.5.1.4 For on-line testing or maintenance during reactor power operation, a key-operated shutdown bypass switch associated with each reactor protective channel may be used in conjunction with a key-operated channel bypass switch as limited by 3.5.1.3. Status of the shutdown bypass switch shall be indicated by a light.

LA8

3.5.1.5 During startup when the intermediate range instruments come on scale, the overlap between the intermediate range and the source range instrumentation shall not be less than one decade. If the overlap is less than one decade, the flux level shall not be greater than that readable on the source range instruments until the one decade overlap is achieved.

SEE 3.3.10

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RODS are withdrawn or capable of withdrawal. The automatic insertion of any withdrawn CONTROL ROD is consistent with evaluations of accidents initiated from MODE 3.

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M3 CTS 3.5.1.1 requires the RPS manual trip function, Reactor Trip Module, and CRD trip devices of Table 3.5.1-1 to be OPERABLE when the reactor is in a startup mode or in a critical state. The ITS applicability for the manual reactor trip function (ITS 3.3.2), the RTMs (ITS 3.3.3) and the CRD trip devices (ITS 3.3.4) is MODES 1 and 2 and MODES 3, 4, and 5 during shutdown bypass operation with any CRD trip breakers in the closed position and the CRD System capable of rod withdrawal. The CTS applicability of "in a critical state" is encompassed by ITS MODES 1 and 2, which are defined as MODES where the reactivity condition is $\geq$ 0.99 k_{eff}. CTS defines the startup mode to be when the shutdown margin is reduced with the intent of going critical. This is considered equivalent to ITS MODE 2 as described in the associated DOCs for Section 1.0. Since the ITS is applicable under more conditions than the current applicability, the ITS Applicability is more restrictive. The proposed applicability provides additional assurance that a reactor trip will be actuated if needed to prevent accident conditions from exceeding those calculated in the accident analyses. This change is consistent with the NUREG.

CTS Table 3.5.1-1 does not have any required actions for the manual reactor trip function, the RTMs and the CRD trip devices when in MODE 3 or lower since Column D only requires the unit be place in hot shutdown (equivalent to ITS MODE 3). Consistent with the proposed ITS applicability, required actions are provided for each ITS Specification that require the unit be placed in a condition outside the applicability of the Specification when the LCO Required Actions cannot be met. ITS 3.3.2 Required Action C.1 is added for the manual reactor trip function to require the operator to open all the CRD trip breakers in 6 hours. Appropriate Required Actions are provided for the RTM (ITS 3.3.3 Required Action C.1 and C.2) and CRD trip devices (ITS 3.3.4

CTS → | 3.5.1.1 | T3.5.1-1 Col. D | T4.1-1 | RPS Instrumentation T2,3-1 3.3.1 + DOC M9 CTS

Table 3.3.1-1 (page 1 of 1)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	CONDITIONS REFERENCED FROM REQUIRED ACTION ~~X.1~~	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Nuclear Overpower –				105.5
a. High Setpoint	1,2(a)	C	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.5 ~~SR 3.3.1.7~~	≤ ~~[106.91% RTP~~ SR 3.3.1.4
b. Low Setpoint	2(b),3(b) 4(b),5(b)	D	SR 3.3.1.1 ~~SR 3.3.1.5~~ ~~SR 3.3.1.7~~	≤ 5% RTP SR 3.3.1.5
2. RCS High Outlet Temperature	1,2	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ [618] °F
3. RCS High Pressure	1,2(a)	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5 ~~SR 3.3.1.7~~	≤ [2355] psig
4. RCS Low Pressure	1,2(a)	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5 ~~SR 3.3.1.7~~	≥ [1800] psig
5. RCS Variable Low Pressure	1,2(a)	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≥ (-[11.59] * T_{out} [5037.8]) psig
6. Reactor Building High Pressure	1,2,3(c)	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ [4] psig
7. Reactor Coolant Pump to Power	1,2(a)	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5 ~~SR 3.3.1.7~~	≥ [5]% RTP with ≤ 2 pumps operating SR 3.3.1.4
8. Nuclear Overpower ~~RCS Flow and Measured AXIAL POWER IMBALANCE~~ Flux/Flow Imbalance	1,2(a)	C	SR 3.3.1.1 SR 3.3.1.3 ~~SR 3.3.1.5~~ SR 3.3.1.5 ~~SR 3.3.1.7~~	Nuclear Overpower RCS Flow and AXIAL POWER ~~IMBALANCE~~ setpoint envelope in the COLR
9. Main Turbine Trip (~~Control Oil~~ Pressure) Hydraulic Fluid	30 ≥ ~~[45]~~% RTP	E	~~SR 3.3.1.1~~ SR 3.3.1.4 SR 3.3.1.5	≥ 800 ~~[45]~~ psig
10. Loss of Main Feedwater Pumps (~~Control~~ Oil Pressure) Hydraulic	2 ≥ ~~[15]~~% RTP	F	~~SR 3.3.1.1~~ SR 3.3.1.4 SR 3.3.1.5	75 ≥ ~~[39]~~ psig
11. Shutdown Bypass RCS High Pressure	2(b),3(b) 4(b),5(b)	D	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ [1720] psig

(a) When not in shutdown bypass operation.

(b) During shutdown bypass operation with any CRD trip breakers in the closed position and the CRD System capable of rod withdrawal.

(c) With any CRD trip breaker in the closed position and the CRD System capable of rod withdrawal.

DOC M2 T2,3-1 Col. "Shutdown Bypass" DOC M2

Supp 5 | Supp 3 | Supp 3 | Supp 3 | Supp 5

52 NUREG SR 3.3.3.1 is modified to delete the SR Note. The reactor trip module is not tested by placing it in bypass. It is either in service or in the tripped condition. Therefore, the SR 3.3.3.1 Note is unnecessary and confusing.

53 The Applicability of NUREG LCO 3.3.6 and LCO 3.3.7 is modified to only include the portions of MODE 3 in which the associated ESPS equipment is required to be OPERABLE. This change is made to reflect the fact that some ESPS actuated equipment is not required in either MODE 3 or MODE 4. This change was made to provide Applicabilities for the ESPS requirements which are consistent with the Applicabilities of the actuated equipment.

54 NUREG Specification 3.3.1 Condition C is revised to specify that these Conditions also apply when two or more RPS channels are inoperable. Specification 3.3.3 Conditions B and C are revised to specify that these Conditions also apply when more than one RPS Reactor Trip Module (RTM) is inoperable. Specification 3.3.5 Condition B is revised to specify that this Condition applies when more than one channel is inoperable for each of one or more Parameters. Specification 3.3.11 Condition F is revised to specify that this Condition also applies when more than two channels are inoperable in a Function. These changes provide ACTION requirements which specifically remove the unit from the Applicability for these Specifications. Without this addition, entry into the ACTION requirements of LCO 3.0.3 would be required. Entry into the Required Actions of 3.3.1 Condition C, 3.3.3 Conditions B and C, 3.3.5 Condition B and 3.3.11 Condition F, rather than the Action Requirements of LCO 3.0.3, is more appropriate because specific Required Actions which result in the unit exiting the unique Applicability for each function are provided. This change is consistent with Column D of CTS Table 3.5.1-1 which provides an action within the table rather than requiring a default to CTS 3.0 (equivalent to ITS LCO 3.0.3).

5 55 The Applicable MODES for the RCS High Pressure function is modified to
5 apply only in MODE 2 when not in shutdown bypass operation. This is appropriate since the Shutdown Bypass RCS High Pressure function is required to be OPERABLE in MODE 2 during shutdown bypass operation with any CRD trip breakers in the closed position and the CRD System capable
5 of rod withdrawal. This is consistent with the CTS applicability for
5 this function.

INSERT B 3.3-21A

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The Main Turbine Trip (Hydraulic Fluid Pressure) Function is required to be OPERABLE in MODE 1 at ≥ 30% RTP. The Loss of Main Feedwater Pumps (Hydraulic Oil Pressure) Function is required to be OPERABLE in MODE 1 and in MODE 2 at ≥ 2% RTP. Analyses presented in BAW-1893 (Ref. 6) have shown that for operation below these power levels, these trips are not necessary to minimize challenges to the PORVs as required by NUREG-0737 (Ref. 5).

ITS Section 3.3

ID 242

Subject: Changed SR 3.3.11.2 frequency to 31 days to reflect change to TSC 95-03 (MSLB instru.) submitted 11/5/98.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.3.11.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.11.2	----------NOTE---------- Only applicable when modifications are implemented that allow online testing. ---------- Perform CHANNEL FUNCTIONAL TEST.	31 days
SR 3.3.11.3	Perform CHANNEL CALIBRATION.	18 months

5

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.11.1 (continued)

between each CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION.

Agreement criteria are based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the transmitter or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE. If the channels are normally off scale during times when surveillance is required, the CHANNEL CHECK will only verify that they are off scale in the same direction. Off scale low current loop channels are verified, where practical, to be reading at the bottom of the range and not failed downscale.

The Frequency, about once every shift, is based on operating experience that demonstrates channel failure is rare. Since the probability of two random failures in redundant channels in any 12 hour period is extremely low, the CHANNEL CHECK minimizes the chance of loss of protective function due to failure of redundant channels. The CHANNEL CHECK supplements less formal, but potentially more frequent, checks of channel OPERABILITY during normal operational use of the displays associated with the LCO required channels.

SR 3.3.11.2

A CHANNEL FUNCTIONAL TEST is performed on each required instrumentation channel to ensure the channel will perform its intended function.

5 The Frequency of 31 days is based on operating experience, with regard to channel OPERABILITY and drift, which demonstrates that failure of more than one channel in any
5 31 day interval is a rare event.

This SR is modified by a Note indicating that it is only applicable when modifications are implemented that allow online testing.

(continued)

~~Table 4.1-1 (CONTINUED)~~ (A1) <except as marked>

Channel Description	~~Check~~	~~Test~~	~~Calibrate~~	Remarks
60. Core Exit Thermocouples	~~MO~~ 31 days	NA	18 months (1)	(1)A one-time extension of the calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
61. Subcooling Monitors	~~MO~~ 31 days	18 months (1)	18 months (1)	(1)A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
62 Main Steam Header Pressure and MSLB detection (analog) channels	ES	MO(1)	18 months	(1) Testing will be performed every 18 months until modifications are implemented to allow for monthly testing. <SEE 3.3.11>
63 Feedwater isolation circuitry (digital) channels and manual pushbutton	NA	18 months	NA	<SEE 3.3.12 + 13>

SR 3.3.8.1 SR 3.3.8.3 A37 A9 A37

ES - Each Shift
DA - Daily
WE - Weekly
MO - Monthly
QU - Quarterly
AN - Annually
PS - Prior to startup, if not performed previous week
NA - Not Applicable
STB - STAGGERED TEST BASIS

(A9)

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Specification 3.3.8

Amendment No. (Unit 1)
Amendment No. (Unit 2)
Amendment No. (Unit 3)

Table 4.1-1 (CONTINUED)

Channel Description	Check	Test	Calibrate	Remarks
60. Core Exit Thermocouples	MO	NA	18 months(1)	(1)A one-time extension of the calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
61. Subcooling Monitors	MO	18 months(1)	18 months(1)	(1)A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
62 Main Steam Header Pressure and MSLB detection (analog) channels	~~SR~~ 12 hours	~~MO~~ 31 days (1)	18 months	(1) Testing will be performed every 18 months until modifications are implemented to allow for monthly testing.
63 Feedwater isolation circuitry (digital) channels and manual pushbutton	NA	18 months	NA	

SR 3.3.11.1 SR 3.3.11.2 SR 3.3.11.3

SEE 3.3.8

SEE 3.3.12 & 13

SR Note for SR 3.3.11.2

A9 A15

ES - Each Shift
DA - Daily
WE - Weekly
MO - Monthly
QU - Quarterly
AN - Annually
PS - Prior to startup, if not performed previous week
NA - Not Applicable
STB - STAGGERED TEST BASIS

A9

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Specification 3.3.11

Amendment No. (Unit 1)
Amendment No. (Unit 2)
Amendment No. (Unit 3)

Table 4.1-1 (CONTINUED)

Channel Description	Check	Test	Calibrate	Remarks
60. Core Exit Thermocouples	MO	NA	18 months(1)	(1)A one-time extension of the calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
61. Subcooling Monitors	MO	18 months(1)	18 months(1)	(1)A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
62 Main Steam Header Pressure and MSLB detection (analog) channels	ES	MO(1)	18 months	(1) Testing will be performed every 18 months until modifications are implemented to allow for monthly testing.
63 Feedwater isolation circuitry (digital) channels and manual pushbutton	~~NA~~	SR 3.3.12.1 18 months	~~NA~~	

ES - Each Shift
DA - Daily
WE - Weekly
MO - Monthly
QU - Quarterly
AN - Annually
PS - Prior to startup, if not performed previous week
NA - Not Applicable
STB - STAGGERED TEST BASIS

Table 4.1-1 (CONTINUED)

<SEE 3.3.8>

Channel Description	Check	Test	Calibrate	Remarks
60. Core Exit Thermocouples	MO	NA	18 months(1)	(1)A one-time extension of the calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
61. Subcooling Monitors	MO	18 months(1)	18 months(1)	(1)A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.
62 Main Steam Header Pressure and MSLB detection (analog) channels	ES	MO(1)	18 months	(1) Testing will be performed every 18 months until modifications are implemented to allow for monthly testing. <SEE 3.3.11>
63 Feedwater isolation circuitry (digital) channels and manual pushbutton <SEE 3.3.12>	~~NA~~	SR 3.3.13.1 18 months	~~NA~~	

ES - Each Shift
DA - Daily
WE - Weekly
MO - Monthly
QU - Quarterly
AN - Annually
PS - Prior to startup, if not performed previous week
NA - Not Applicable
STB - STAGGERED TEST BASIS

A9

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Specification 3.3.13

This change represents no actual change in requirements, only a change in presentation of requirements. This change is consistent with the NUREG.

A14 CTS 3.3.4 requires the BWST level instrumentation to be OPERABLE when the RCS, with fuel in the core, is in a condition with pressure equal to or greater than 350 psig or temperature equal to or greater than 250°F and subcritical. ITS 3.3.8 requires this instrumentation to be OPERABLE during MODES 1, 2, and 3. MODE 3 is defined as subcritical with the average coolant temperature > 250°F. CTS criteria specified as 250°F is considered more limiting than the 350 psig criteria, since the saturation temperature of water at 350 psig is > 435°F. As such, the proposed change is considered administrative. In addition, the CTS applicability statement "with fuel in the core" is deleted since the ITS definition of MODE is premised on "fuel in the vessel." This is a format change due to ITS conversion and is administrative in nature. The proposed change is consistent with the NUREG.

A15 The CTS Table 4.1-1 Item 62 specifies the testing requirements for the Main Steam Header Pressure and MSLB detection (analog) channels. These testing requirements are retained in ITS SR 3.3.11.2 and 3. CTS Table 4.1-1 requires a CHANNEL CALIBRATION every 18 months and a
5 CHANNEL FUNCTIONAL TEST monthly. The monthly test requirement is modified by a note indicating that the functional test will be performed every 18 months until modifications are implemented that will allow for quarterly testing. ITS SR 3.3.11.2 Note indicates that it is only applicable when modifications are implemented that allow online testing. Since both the CTS and ITS definitions specify that the required calibration includes the CHANNEL FUNCTIONAL TEST, the specific requirement to perform the CHANNEL FUNCTIONAL TEST on an 18 month frequency is is already encompassed within the CHANNEL CALIBRATION. ITS
5 includes a 31 day CHANNEL FUNCTIONAL TEST which is only applicable after modifications are complete. This change represents no actual change in requirements, only a change in presentation of requirements.

A16 CTS 3.5.7 Applicability requires the Main Steam Line Break (MSLB) detection and feedwater isolation circuitry to be OPERABLE when main steam header pressure is greater than 700 psig. ITS 3.3.11, 12, and 13 Applicability for this circuitry of MODES 1, 2, and MODE 3 when main steam header pressure is greater than 700 psig except when all MFCVs and SFCVs are closed. With the exception of "except when all MFCVs and SFCVs are closed," which is addressed in a separate less restrictive DOC, the CTS and ITS Applicabilities are equivalent. Therefore, the change is administrative and is consistent with the NUREG.

A17 CTS 3.5.6, 3.4.1, 3.4.3, and 3.3.4 provide requirements for Post Accident Monitoring (PAM) Functions. ITS 3.3.8 consolidates the CTS PAM Functions into one Specification. In CTS, each Function has separate Actions and is considered separately. However, since ITS addresses the PAM functions using common actions, Note 2 to the ACTIONS

Supp 3 (54) (28) <except as marked> MSLB Detection and MFW Isolation

CTS

One or more MFW Isolation Functions with two or more channels inoperable OR

B.1 Be in MODE 3. AND

~~EFIC System~~ Instrumentation 3.3.11

12 hours (5)

T3.5.1-1 Item 20, Col. D

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. ~~F.~~ Required Action and associated Completion Time not met ~~for~~ Functions ~~1.c, 2, 3,~~ or ~~4~~.	B.2.1 ~~F.1~~ Reduce ~~once through steam generator~~ pressure to < ~~750~~ 700 psig. (main steam header)	18 ~~12~~ hours (5)
	OR	
	B.2.2 Close all MFIVs and SFIVs.	18 hours

DOC L18

SURVEILLANCE REQUIREMENTS

NOTE

Refer to Table 3.3.11-1 to determine which SRs shall be performed for each EFIC Function.

SURVEILLANCE		FREQUENCY	
SR 3.3.11.1	Perform CHANNEL CHECK. (INSERT 3.3-29A)	12 hours	4.1.1 T4.1-1 Item 62 Col. "Check"
SR 3.3.11.2	Perform CHANNEL FUNCTIONAL TEST.	31 days	(31) 4.1.1 T4.1-1 Item 62 CFT
SR 3.3.11.3	Perform CHANNEL CALIBRATION.	~~9~~ [18] months	4.1.1 T4.1-1 Item 62 Col "Calibrate"
SR 3.3.11.4	Verify EFIC RESPONSE TIME is within limits.	[18] months on a STAGGERED TEST BASIS (7)	

Supp 5

shunt trip function being inoperable. This is consistent with the NUREG Bases discussion and the CTS requirements.

26 Not used.

27 NUREG LCO 3.3.14, "EFIC-EFW-Vector Valve Logic," is not adopted since it is not applicable to ONS. ONS design does not include vector valve logic.

28 NUREG Specification 3.3.11, Emergency Feedwater Initiation and Control (EFIC) System Instrumentation; NUREG Specification 3.3.12, EFIC Manual Initiation; and NUREG Specification 3.3.13, EFIC logic, are modified to address Main Steam Line Break Detection and MFW Isolation Circuitry only. ITS Specifications 3.3.14 and 3.3.15 are added to address Emergency Feedwater System Initiation Circuitry and Main Steam Line Break and Main Feedwater Isolation instrumentation separately. The NUREG Specification combines the EFW System Initiation, MSL Isolation and MFW Isolation functions into one Specification apparently due to common instrumentation and similar initiation circuitry. ONS does not have common instrumentation and similar initiation circuitry for these functions. Consistent with CTS, the ITS addresses these requirements by separate Specifications. The Specification titles, LCOs, ACTIONS, and Surveillance Requirements are appropriately modified to reflect ONS specific terminology and design requirements. Where appropriate, ITS Required Actions are based on similar NUREG Required Actions. For example, the Completion Time of one hour for ITS 3.3.15, Required Action A.1 is consistent with NUREG Specification 3.3.7, Required Action A.2, which allows one hour to declare an affected component inoperable when the actuation logic is inoperable.

29 SR 3.3.8.2 is added to the Post Accident Monitoring (PAM) SR Table to capture the 12 month calibration frequency of the containment pressure and hydrogen concentration functions. ITS SR 3.3.8.2 is modified by a note indicating that the SR is only applicable to these two functions. NUREG SR 3.3.17.2 (ONS SR 3.3.8.3) is modified by a note that indicates that the 18 month calibration is not applicable to these two functions. This change is necessary to accommodate the different frequencies for CHANNEL CALIBRATION.

30 NUREG Table 3.3.17-1 (ONS Table 3.3.8-1) is modified to list the Regulatory Guide 1.97 Type A and the Regulatory Guide 1.97 non-Type A instruments and their associated requirements as documented in the NRC Safety Evaluation Report for Regulatory Guide 1.97 related to Oconee. The "NOTE" at the bottom of the NUREG Table is deleted since it does not apply plant specific.

31 NUREG SR 3.3.11.2, as it relates to the MSLB Detection and MFW Isolation Circuitry, is modified to retain CTS requirements. CTS (Table 4.1-1
5 Item 62) specifies the CHANNEL FUNCTIONAL TEST on a monthly (31 day) frequency with a note indicating the test is only applicable when

INSERT B 3.3-109A

is performed on each required instrumentation channel to ensure the channel will perform its intended function.

5 The Frequency of 31 days is based on operating experience, with regard to channel OPERABILITY and drift, which demonstrates that failure of
5 more than one channel in any 31 day interval is a rare event.

This SR is modified by a Note indicating that it is only applicable when modifications are implemented that allow online testing.

ITS Section 3.3

ID 243

Subject: Section 3.3 DOC A19 revised to include reference to Function 22 which was added by Supplement 3.

Table is used to indicate separate Condition entry is permitted for each function. This is a change in the presentation of requirements, with no actual change in requirements and is, therefore, administrative. The change is consistent with the NUREG.

A18 CTS 3.5.6.2 in conjunction with Table 3.5.6-1, Column B serves as a pointer to the appropriate action for each function (ITS PAM Functions 1, 3, 5, 6, 7, 9, 10, 16 and 17) when the number of instrument channels falls below the limit provided by Table 3.5.6-1, Column A. In ITS, the addition of ITS Table 3.3.8-1 Column "CONDITIONS REFERENCED FROM REQUIRED ACTION G.1" and Required Action G.1 provides comparable requirements. This is an administrative change only, and is necessary due to the different format used for ITS. This change is consistent with the NUREG.

A19 CTS Table 4.1-1 specifies instrumentation surveillance requirements for each instrument function separately. The ITS 3.3.8 SR Note is used to indicate that all 3.3.8 SRs apply to each PAM function in Table 3.3.8-1 except where indicated. The SR Note to SR 3.3.8.2 and SR Note 2 to SR 3.3.8.3 are provided to specify different calibration frequencies for Functions 7, 10, and 22. The SR Notes are need only due to the change in presentation and format. This is an administrative change only, and is consistent with the NUREG.

A20 CTS 3.3.4 provides appropriate actions for an inoperable BWST level instrumentation channel separate from other PAM functions. ITS ACTION G is added for ITS Function 14 as a pointer to the appropriate action for this function. This is necessary because ITS 3.3.8 addresses the PAM functions using an instrumentation table and common actions, where appropriate. This is an administrative change only, and is necessary due to the different format used for ITS. This change is consistent with the NUREG.

A21 CTS Table 3.5.1-1 specifies the minimum channels required OPERABLE for CRD breakers and SCR (electronic trip assembly) control relays on a per trip system basis. ITS LCO 3.3.4 specifies the total number of channels required OPERABLE. Although presented differently, the two requirements are equivalent. As such, this change represents no actual change in requirements, only a change in presentation of requirements and is consistent with the NUREG.

A22 CTS Table 4.1-1 Items 58, 59, and 61 specifies the testing requirements for the Wide Range Hot Leg Level, Reactor Vessel Head Level, and Subcooling Monitor channels. These testing requirements are retained in ITS SR 3.3.8.3. As applied at ONS, CTS Table 4.1-1 requires a CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST of these functions every refueling outage. Both the CTS and ITS definitions specify that the required calibration includes the CHANNEL FUNCTIONAL TEST. Therefore, the specific requirement to perform the CHANNEL FUNCTIONAL TESTS is not retained in the ITS. This change represents no actual

ITS Section 3.3

ID 244

Subject: Section 3.3 DOCs revised to add DOC A39 that was inadvertently deleted by Supplement 4.

A1 <except as marked>

Table 4.1-1

INSTRUMENT SURVEILLANCE REQUIREMENTS

~~Channel Description~~ Function	Check	Test	Calibrate	Remarks
1. Protective Channel Coincidence Logic in the Reactor Trip Modules	NA	MO	NA	<SEE 3.3.3 & 4>
2. Control Rod Drive Trip Breaker, SCR Control Relays E and F	NA	MO(1)	NA	(1) This test shall independently confirm the operability of the shunt trip device and the undervoltage device.
1, 9 ~~3.~~ Power Range Amplifier SR 3.3.1.2	~~ES~~(1) 24 hrs (L9)	NA	(1)	(1) Heat balance check each shift. (24 hours, L9) Heat balance calibration whenever indicated core thermal power exceeds neutron power by more than 2 percent.
1.a ~~4.~~ 1.b 8 Power Range Nuclear Overpower Nuclear Overpower Flux/Flow Imbalance (A5)	SR 3.3.1.1 ~~ES~~ 12 hrs (A9)	SR 3.3.1.4 45 Days STB (A9)	SR 3.3.1.3 ~~MO~~(1)(2) 31 days (A9) (For Funct. 8 only)	(1) Using incore instrumentation. (2) Axial offset upper and lower chambers after each startup if not done previous week. (L8) (SR 3.3.1.3)
5. Wide Range	ES(1)	PS	NA	(1) When in service. <SEE 3.3.8, 9 & 10>
6. Source Range	ES(1)	PS	NA	(1) When in service. <SEE 3.3.8, 9, 10, 3.9.2>
2 ~~7.~~ Reactor Coolant Temperature	~~SR 3.3.1.1~~ ~~ES~~ 12 hrs (A9)	~~SR 3.3.1.4~~ 45 Days STB (A9)	~~SR 3.3.1.5~~ 18 months	
3 11 ~~8.~~ High Reactor Coolant Pressure	~~ES~~	45 Days STB	18 months (A39)	(1) A one-time extension of the test frequency to a maximum of 24 months is allowed for Oconee Unit 3 during operating cycle 17.

Amendment No. 228 (Unit 1)
Amendment No. 229 (Unit 2)
Amendment No. 230 (Unit 3)

Add SR 3.3.1.5 for Functions 1.a + 1.b (M35)

Add SR 3.3.1.5 Note for Functions 2, 3, 4, 5, 6, 7, 8, 9, 10 & 11 (L20)

Add SR 3.3.1.2 Note (L14)

Add SR 3.3.1.3 Note (L15)

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Specification 3.3.1

Isolation (ES Channels 3 and 4). The ITS LCO statement was expanded to provide a complete list of equipment actuated by the ES channels. The LCO statement does not change the technical specification requirements. Therefore, the change is administrative.

A35 CTS Table 3.5.1-1, Item 14 describes the functional unit as ESF Reactor Building Isolation (Essential Systems) and Reactor Building Cooling System. ITS LCO 3.3.6.c describes this function as Reactor Building (RB) Cooling, Reactor Building Essential Isolation and Penetration Room Ventilation (ES Channels 5 and 6). The ITS LCO statement was expanded to provide a complete list of equipment actuated by the ES channels. The LCO statement does not change the technical specification requirements. Therefore, the change is administrative.

A36 CTS 3.8.1.10 requires the reactor building purge system, including the radiation monitors, to be operable immediately prior to refueling operation. ITS 3.3.16 requires the Reactor Building Isolation-High Radiation function to be OPERABLE during CORE ALTERATION and during movement of irradiated fuel assemblies within the reactor building. CTS defines "refueling operation" as an operation involving a change in core geometry by manipulation of fuel or control rods when the reactor vessel head is removed. Also, movement of irradiated fuel assemblies within the reactor building can only be performed subsequent to the start of refueling. As such, the change is administrative and consistent with the NUREG.

A37 CTS Table 4.1-1 Remarks Note 1 allows a one-time extension of the test frequency to a maximum of 23 months for items 45 and 46 and a maximum of 24 months for items 58, 59, 60, and 61 for Oconee Unit 2 in operating cycle 16. This provision is no longer needed and is deleted since operating cycle 16 has passed. As such, the change is administrative.

A38 A Note is added to the ACTIONS Table for ITS LCO 3.3.19 and to Required Action A of LCO 3.3.17, LCO 3.3.18, and LCO 3.3.21 indicating that the Completion Time for Required Actions are reduced when in Condition L of LCO 3.8.1. The addition of this Note does not change any technical requirements, it only prompts the user to recognize that the Completion Times are less than that indicated when in Condition L of LCO 3.8.1. Since the requirements are not changed, only restated, this is an administrative change.

5 A39 CTS Table 4.1-1 Remarks Note 1 allows a one-time extension of the test
5 frequency to a maximum of 24 months for items 8 and 9 for Oconee Unit 3
5 in operating cycle 17. This provision is no longer needed and is
5 deleted since operating cycle 17 will have passed prior to ITS
5 implementation. As such, the change is administrative.

ITS Section 3.3

ID 245

Subject: Corrected CTS markups for ITS 3.3.17 and 3.3.21.

(A1) <except as noted>

Specification 3.3.17

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.1.11 Verify each Keowee Hydro Unit can: 1) Emergency start from each control room; 2) Attain rated speed and voltage within 23 seconds of an emergency start initiate; 3) Be synchronized to the grid and loaded at the maximum practical rate to a value equivalent to one Unit's safeguard loads plus two Unit's HOT SHUTDOWN loads.	Annually <SEE 3.8 + 3.3.22>
SR 3.7.1.12 NOTE Not required to be met when the overhead electrical disconnects for the Keowee Hydro Unit associated with the underground emergency power path are open. Verify the ability of the Keowee Unit ACBs to close automatically to the underground path.	Annually <SEE 3.8>
SR 3.7.1.13 NOTE Only required to be met when a Lee gas turbine is energizing the standby buses. Verify that a Lee gas turbine can be started and connected to the isolated 100kV dedicated line and carry the equivalent of a single Unit's maximum safeguard loads within one hour.	18 months (LA12)
SR ~~3.7.1.14~~ 3.3.17.1 Perform an automatic transfer of the Main Feeder Buses to the Startup Transformer, Standby Buses, and retransfer to the Startup Transformers. CHANNEL FUNCTIONAL TEST	18 months (M28)
SR 3.7.1.15 NOTE Only required to be met during periods of commercial power generation using the Keowee Hydro Units. Verify the ability of the Keowee Hydro units to supply emergency power from the initial condition of commercial power generation.	18 months <SEE 3.8>

Supp 5

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.1.11 Verify each Keowee Hydro Unit can: 1) Emergency start from each control room; 2) Attain rated speed and voltage within 23 seconds of an emergency start initiate; 3) Be synchronized to the grid and loaded at the maximum practical rate to a value equivalent to one Unit's safeguard loads plus two Unit's HOT SHUTDOWN loads.	Annually (SEE 3.8 + 3.3.22)
SR 3.7.1.12 NOTE Not required to be met when the overhead electrical disconnects for the Keowee Hydro Unit associated with the underground emergency power path are open. Verify the ability of the Keowee Unit ACBs to close automatically to the underground path.	Annually (SEE 3.8)
SR 3.7.1.13 NOTE Only required to be met when a Lee gas turbine is energizing the standby buses. Verify that a Lee gas turbine can be started and connected to the isolated 100kV dedicated line and carry the equivalent of a single Unit's maximum safeguard loads within one hour.	18 months (LA12)
SR ~~3.7.1.14~~ 3.3.21.1 Perform an automatic transfer of the Main Feeder Buses to the Startup Transformer, Standby Buses, and retransfer to the Startup Transformers. CHANNEL FUNCTIONAL TEST	18 months
SR 3.7.1.15 NOTE Only required to be met during periods of commercial power generation using the Keowee Hydro Units. Verify the ability of the Keowee Hydro units to supply emergency power from the initial condition of commercial power generation.	18 months (M28)

(continued)

(SEE 3.8)

ITS Section 3.3

ID 247

Subject: Revised markup for NUREG 3.3.8 Bases to reflect ITS Bases changes made by Supplement 4

INSERT B3.3-147A

three channels (two for Train A and one for Train B) with two channels indicated and one channel recorded. (Note: three channels are available only two are required). The indicated range is 0 to 400 inches (11% to 84% level as a percentage of volume).

INSERT B3.3-147B

The operator relies upon SG level information following an accident (e.g., main steam line break, steam generator tube rupture) to isolate the affected SG to confirm adequate heat sinks for transients and accidents.

The extended startup range Steam Generator Level instrumentation consists of four transmitters (two per SG) that feed four gauges.

INSERT B3.3-147C

13. Steam Generator Pressure

Steam Generator Pressure instrumentation is a Type A, Category 1 variable provided to support operator diagnosis of a main steam line break or SG tube rupture accident to identify and isolate the affected SG. In addition, SG pressure is a key parameter used by the operator to evaluate primary-to-secondary heat transfer.

Steam generator pressure measurement is provided by two pressure transmitters per SG. Each instrument channel inputs to the ICCM cabinet that provide safety inputs to two indicators located on the main control board in the control room. One channel per SG also provides input to a recorder located in the control room.

14. Borated Water Storage Tank (BWST) Level

BWST Level instrumentation is a Type A, Category 1 variable provided to support action for long term cooling requirements, i.e., to determine when to initiate the switch over of the core cooling pump suction from the BWST to sump recirculation. BWST level measurement is provided by three channels with readout on two indicators and one recorder. (Note: three channels are available only two are required). Two of the three channels provide inputs to the ICCM cabinet which provides inputs to qualified indicators on the Control Board. The third channel provides a safety input to a dedicated recorder. The channels provide level indication over a range of 0 to 50 feet (13% to 100% of volume).

ITS Section 3.3

ID 250

Subject: Revised DOC M5, last sentence, to correctly refer to approved TSTF 211 in place of the plant specific deviation.

SURVEILLANCE REQUIREMENTS

SR 3.10.1.12 (continued)

cycle requirements. The design basis discharge time for the SSF battery is one hour.

The Surveillance Frequency for this test is 12 months. This Frequency is considered acceptable based on operating experience.

SR 3.10.1.13

CHANNEL CALIBRATION is a complete check of the instrument channel, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drift to ensure that the instrument channel remains operational between successive tests. CHANNEL CALIBRATION shall find that measurement errors and bistable setpoint errors are within the assumptions of the setpoint analysis. CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the setpoint analysis. This Frequency is justified by the assumption of an 18 month calibration interval to determine the magnitude of equipment drift in the setpoint analysis.

SR 3.10.1.14

5 Inservice Testing of the SSF valves demonstrates that the valves are mechanically OPERABLE and will operate when required. These valves are required to operate to ensure the required flow path.

The specified Frequency is in accordance with the IST Program requirements. Operating experience has shown that these components usually pass the SR when performed at the IST Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.10.1.15

This SR requires the SSF pumps to be tested in accordance with the IST Program. The IST verifies the required flow

(continued)

Required Action E.1 and E.2) when they are inoperable in MODE 3 or lower. This additional restriction on operation is appropriate since it ensures rod motion is not possible when the required trip function or devices are inoperable. This change is consistent with the NUREG.

M4 CTS Table 3.5.1-1 Note f requires an inoperable RTM be placed in trip in 1 hour or remove power to the associated CRD trip breaker in 1 hour. ITS 3.3.3 Required Action A.2 is added to these actions to require that the inoperable RTM be removed from the cabinet. The addition of this action is appropriate since it ensures that the trip signal is registered in the other channels by causing the electrical interlocks to indicate a tripped channel in the remaining three RTMs. Operation in this condition is allowed indefinitely because the actions put the RPS into a one-out-of-three configuration. This additional restriction on operation is consistent with the NUREG.

M5 CTS Table 3.5.1-1 provides no specific requirements to the address the condition where the action specified for an inoperable RTM or CRD trip breaker is not completed within the required time period. ITS 3.3.3 ACTION B and ITS 3.3.4 ACTION D are added to require the Unit be in MODE 3 in 12 hours with all CRD trip breakers open or to require the operator to remove power from all CRD trip breakers when the Required Action and associated Completion time is not met in MODE 1, 2, or 3. For ITS 3.3.3 ACTION B this action also applies to the condition where two or more RTMs are inoperable in MODE 1, 2, or 3. CTS requires entry into CTS 3.0, which requires the reactor be place in Hot Shutdown (equivalent to ITS Mode 3) in 12 hours. The ITS ACTION is more appropriate since it places the unit in a condition in which the LCO no longer applies (i.e., also requires opening all CRD trip breakers or removing power from all CRD trip breakers). This change is consistent with the NUREG as modified by TSTF 211.

M6 CTS 3.5.1.1 requires the ESPS functions of Table 3.5.1-1 to be OPERABLE when the reactor is in a startup mode or in a critical state. The ITS 3.3.5 Applicability for ESPS Parameters 3 and 4 is MODES 1, 2, 3, and 4. The CTS applicability of "in a critical state" is encompassed by ITS MODES 1 and 2, which are defined as MODES where the reactivity condition is $\geq 0.99\ k_{eff}$. CTS defines the startup mode to be when the shutdown margin is reduced with the intent of going critical. This is considered equivalent to ITS MODE 2 as described in the associated DOCs for Section 1.0. Since the ITS is applicable under more conditions than the current applicability, the ITS Applicability is more restrictive. The additional requirement for OPERABILITY of these functions in MODES 3 and 4 is considered appropriate since the potential for a high energy line break exists. This change is consistent with the NUREG.

M7 CTS Table 3.5.1-1 Note (e), in conjunction with CTS Table 3.5.1-1 Column D, provides a total time of 84 hours, from failure to meet the MINIMUM CHANNELS OPERABLE requirement of Column C for the ESPS parameters, for the unit to enter cold shutdown (equivalent it ITS

ITS Section 3.3

ID 276

Subject: Revised DOC M22 and L36 (and corresponding NSHC) to more accurately described the proposed changes.

other RPS instruments. The proposed change is more restrictive since it is an additional restriction on operation and is made for consistency with the NUREG.

M18 CTS 3.8.10 requires the radiation monitor associated with the purge system to be tested and verified OPERABLE immediately prior to refueling operations. No explicit requirement is provided in the CTS that addresses required action if monitor is later discovered inoperable. Therefore, CTS LCO 3.0 would require a unit shutdown to MODE 5. Since the unit is already shutdown, no action would be required. ITS 3.3.16 ACTION A, which provides appropriate actions for this situation, is added and provides two options. Required Action A.1 requires the reactor building purge valves to be closed immediately or Required Action A.2 requires the movement of irradiated fuel assemblies to be suspended. Closure of the purge valves accomplishes the function of the high radiation channel. Suspending movement of irradiated fuel assemblies places the unit in a configuration in which the purge isolation on high radiation is not required. The proposed change is more restrictive since it is an additional restriction on plant operation and is consistent with the NUREG.

M19 CTS 3.8.10 does not provide a specific requirement to check or calibrate the reactor building purge valve isolation - high radiation channel. ITS SR 3.3.16.1 requires a CHANNEL CHECK of this channel every 12 hours and ITS SR 3.3.16.3 requires a CHANNEL CALIBRATION of this channel every 18 months. The addition of the CHANNEL CHECK is an appropriate restriction to ensure that a gross failure of instrumentation has not occurred. The CHANNEL CALIBRATION provides a complete check of the instrument loop and sensor and is an appropriate restriction to verify the channel responds to a measured parameter within the necessary range and accuracy. The changes are consistent with the NUREG.

M20 ITS SR 3.3.14.2 is added to provide a requirement for a CHANNEL FUNCTIONAL TEST of each EFW System manual initiation circuit at a frequency of every 92 days. The addition of the CHANNEL FUNCTIONAL TEST is appropriate to ensure that the manual initiation circuit can perform its intended function. This is an additional restriction on operation consistent with the NUREG.

M21 CTS Table 4.1-1, Item 21, Column "Check" currently does not require a check of the Reactor Building Pressure-High High parameter. ITS SR 3.3.5.1 is added to require a CHANNEL CHECK of the Reactor Building Pressure-High High parameter every 12 hours consistent with the NUREG. A CHANNEL CHECK provides reasonable assurance that a gross failure of instrumentation will be identified promptly. The more restrictive change is an acceptable restriction on operation and is consistent with the NUREG.

M22 CTS Table 3.5.1-1, Column D requires the unit to be in hot shutdown (MODE 3) within 24 hours when one or more TSV Closure Instrumentation

channels is inoperable and Note (e) to the Table requires the unit be placed in Cold Shutdown (MODE 5) within the following 72 hours if the minimum conditions are not met. ITS 3.3.15 ACTION A is added to require the TSVs to be declared inoperable within 1 hour (also, see DOC
5 L19). The subsequent action is dependent upon the MODE the unit is in
5 when the instrument channels become inoperable. When in MODE 1, ITS
5 3.0.3 is entered, since there is no Condition for all TSVs inoperable,
5 which requires the unit be in MODE 3 within 12 hours. However, once
5 the unit enters MODE 2, ITS 3.7.2 Condition C applies and 3.0.3 is
5 exited. Therefore, this portion of ITS is more restrictive since the unit must be in MODE 2 within 13 hours of an inoperable TSV Closure instrumentation channel where CTS required the unit be in hot shutdown
5 (equivalent to ITS MODE 3) within 24 hours. When the instrument
5 channels become inoperable when in MODE 2 or 3, ITS 3.7.2 Condition C
5 would be entered. ITS 3.7.2 (Turbine Stop Valves) Action C then allows 8 additional hours to close an inoperable TSV when in MODE 2 or 3, for
5 a total of 21 hours initial discovery of the instrument channel being
5 inoperable in MODE 1 (or a total of 9 hours if discovered inoperable in
5 MODES 2 or 3). In addition, if the TSVs were not closed, then an additional 12 hours (on top of the eight hours) is allowed to place the unit in MODE 3 and 18 hours to place the unit in MODE 4. This results
5 in allowing a total of 33 hours to be in MODE 3 and 39 hours to be in
5 MODE 4 from initial discovery of it being inoperable in MODE 1 (or a
5 total of 21 hours (MODE 2 only) to be in MODE 3 and 27 hours to be in
5 MODE 4 if discovered inoperable in MODES 2 or 3). This compares to the CTS shutdown time of 24 hours to be in hot shutdown (MODE 3) and 96 hours to be in cold shutdown (MODE 5). The less restrictive aspects of this change are discussed in DOC L36. The proposed more restrictive ITS Shutdown Times requirements are considered reasonable since they are consistent with ITS 3.7.2 which is consistent with the NUREG.

These more restrictive changes provide reasonable assurance that the TSVs can perform their design safety function to mitigate the consequences of accidents that could result in offsite exposures comparable to the 10 CFR 100 limits.

M23 CTS does not include any test requirements for the TSV Closure Instrumentation channels. ITS SRs 3.3.15.1 is added to require a CHANNEL FUNCTIONAL TEST be performed every 31 days to ensure that the channel can perform its intended function. This test is an appropriate restriction on unit operation. The more restrictive requirement is consistent with comparable NUREG (3.3.11-1, Function 4) requirements.

M24 CTS 3.3.4.a(2) requires the unit be in Hot Shutdown (equivalent to ITS MODE 3) within 12 hours and in a condition with RCS pressure below 350 psig and RCS temperature below 250°F (equivalent to ITS MODE 4) within an additional 48 hours when one required channel of BWST level instrumentation is inoperable for more than 24 hours. ITS 3.3.8 Required Actions H.1 and H.2 require the unit to be placed in ITS MODE 3 (i.e., subcritical) in 12 hours, and in ITS MODE 4 in 18 hours. The shorter Completion Time is reasonable to allow this MODE to be

reached in an orderly manner and without challenging unit systems. The proposed change is consistent with the NUREG.

M25 CTS 3.4.1 requires the EFW pump initiation circuitry to be OPERABLE when Reactor Coolant System (RCS) temperature is > 250°F. ITS 3.3.14

L34 CTS 3.5.1.1 Applicability for the TSV Closure instrumentation channels is while in the startup mode or when the reactor is in a critical state. This is considered encompassed by ITS MODES 1 and 2. ITS 3.3.15 Applicability is in MODES 1, 2, and 3 except when all TSVs are closed. The exception of "when all TSVs are closed" is a less restrictive change and is consistent with comparable NUREG requirements (Table 3.3.11-1, Note c). The exception is appropriate since the TSVs are already performing their safety function when they are closed.

L35 CTS 3.8.10 requires the radiation monitor associated with the purge system valve isolation to be tested and verified OPERABLE immediately prior to refueling operations. CTS Table 4.1-2, Item 4, requires this functional test be performed "Prior to Refueling." ITS 3.3.16 Applicability is during CORE ALTERATIONS and during movement of irradiated fuel assemblies within containment. ITS SR 3.3.16.2 requires the testing be performed once each refueling outage prior to CORE ALTERATIONS or beginning movement of irradiated fuel assemblies within containment. Permitting the specified testing to be conducted prior to beginning movement of irradiated fuel assemblies within containment in lieu of immediately prior to refueling operations is a less restrictive requirement upon unit operation (and is more stringent than the NUREG). Requiring performance of SR 3.3.16.2 once each refueling outage prior to CORE ALTERATIONS or prior to beginning movement of irradiated fuel assemblies within containment represents a reasonable relaxation of the CTS surveillance frequency. This continues to ensure that this function is verified prior to irradiated fuel assembly handling within containment.

L36 CTS Table 3.5.1-1, Column D requires the unit to be in hot shutdown (MODE 3) within 24 hours when one or more TSV Closure Instrumentation channels is inoperable and Note (e) to the Table requires the unit be placed in Cold Shutdown (MODE 5) within the following 72 hours if the minimum conditions are not met. ITS 3.3.15 ACTION A is added to require the TSVs to be declared inoperable within 1 hour (also, see DOC L19).
5 The subsequent action is dependent upon the MODE the unit is in when the
5 instrument channels become inoperable. When in MODE 1, ITS 3.0.3 is
5 entered, since there is no Condition for all TSVs inoperable, which
5 requires the unit be in MODE 3 within 12 hours. However, once the unit
5 enters MODE 2, ITS 3.7.2 Condition C applies and 3.0.3 is exited.
5 Therefore, this portion of ITS is more restrictive since the unit must
5 be in MODE 2 within 13 hours of an inoperable TSV Closure
5 instrumentation channel where CTS required the unit be in hot shutdown
5 (equivalent to ITS MODE 3) within 24 hours. When the instrument
5 channels become inoperable when in MODE 2 or 3, ITS 3.7.2 Condition C
5 would be entered. ITS 3.7.2 (Turbine Stop Valves) Action C then allows
5 8 additional hours to close an inoperable TSV when in MODE 2 or 3, for a
5 total of 21 hours initial discovery of the instrument channel being
5 inoperable in MODE 1 (or a total of 9 hours if discovered inoperable in
5 MODES 2 or 3). In addition, if the TSVs were not closed, then an
5 additional 12 hours (on top of the eight hours) is allowed to place the
5 unit in MODE 3 and 18 hours to place the unit in MODE 4. The proposed

5 change is less restrictive since the ITS provides the option of closing
5 the TSVs, permits 33 hours to be in MODE 3 if the TSVs are not closed,
5 and the ITS only requires the unit be placed in MODE 4 instead of
5 MODE 5. The more restrictive aspects of this change are addressed in
5 DOC M22. The proposed less restrictive requirements are consistent with ITS 3.7.2, which is consistent with the NUREG.

L37 CTS 3.4.3.b requires a flow path with no OPERABLE emergency feedwater flow indicators to be restored to OPERABLE status within 72 hours. ITS 3.3.8 Required Action C.1 allows 7 days to restore an inoperable flow indicator when both are inoperable. Required Action C.1 allows an additional 4 days for restoration of a single channel when no channels are OPERABLE. The additional time to restore at least one channel allowed by Required Action C.1 is considered appropriate based on the relatively low probability of an event requiring PAM instrumentation and the availability of alternate means to obtain required information. This less restrictive change is consistent with the NUREG.

LESS RESTRICTIVE CHANGE L36

The Oconee Nuclear Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1430, "Standard Technical Specifications, Babcock and Wilcox Plants." The proposed changes involve making the current Technical Specifications (CTS) less restrictive. Below is the description of this less restrictive change and the No Significant Hazards Consideration for conversion to NUREG-1430.

CTS Table 3.5.1-1, Column D requires the unit to be in hot shutdown (MODE 3) within 24 hours when one or more TSV Closure Instrumentation channels is inoperable and Note (e) to the Table requires the unit be placed in Cold Shutdown (MODE 5) within the following 72 hours if the minimum conditions are not met. ITS 3.3.15 ACTION A is added to require the TSVs to be declared
5 inoperable within 1 hour (also, see DOC L19). The subsequent
5 action is dependent upon the MODE the unit is in when the
5 instrument channels become inoperable. When in MODE 1, ITS 3.0.3
5 is entered, since there is no Condition for all TSVs inoperable,
5 which requires the unit be in MODE 3 within 12 hours. However,
5 once the unit enters MODE 2, ITS 3.7.2 Condition C applies and
5 3.0.3 is exited. Therefore, this portion of ITS is more restrictive since the unit must be in MODE 2 within 13 hours of an inoperable TSV Closure instrumentation channel where CTS required the unit be in hot shutdown (equivalent to ITS MODE 3) within 24
5 hours. When the instrument channels become inoperable when in
5 MODE 2 or 3, ITS 3.7.2 Condition C would be entered. ITS 3.7.2
5 (Turbine Stop Valves) Action C then allows 8 additional hours to close an inoperable TSV when in MODE 2 or 3, for a total of 21
5 hours initial discovery of the instrument channel being inoperable
5 in MODE 1 (or a total of 9 hours if discovered inoperable in MODES
5 2 or 3). In addition, if the TSVs were not closed, then an additional 12 hours (on top of the eight hours) is allowed to place the unit in MODE 3 and 18 hours to place the unit in MODE 4. The proposed change is less restrictive since the ITS provides the option of closing the TSVs and the ITS only requires the unit be placed in MODE 4 instead of MODE 5. The more restrictive aspects of this change are addressed in DOC M22. The proposed less
5 restrictive Required Actions are consistent with ITS 3.7.2, which is consistent with the NUREG.

In accordance with the criteria set forth in 10 CFR 50.92, Duke Energy has evaluated this proposed Technical Specification change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion.

ITS Section 3.3

ID 277

Subject: Revised CTS 4.1-7 markup page for ITS 3.3.2 to indicate that Table 4.1-1 Items 35, 36, 38, 39, and 40 are addressed by CTS markup page for ITS 3.3.8. Added CTS 4.1-7 markup page for ITS 3.3.8, which was inadvertently omitted by Supplement 2.

~~Table 4.1-1 (CONTINUED)~~ (A1) <except as marked>

~~Channel Description~~		~~Check~~	~~Test~~	~~Calibrate~~	~~Remarks~~
33.	Containment Temperature	NA	NA	18 months	<SEE 3.3.8>
34.	Incore Neutron Detectors	MO(1)	NA	NA	(1) Check functioning; including functioning of computer readout or recorder readout. <SEE 3.2>
35.	Emergency Plant Radiation Instruments	MO(1)	NA	18 months	(1) Battery check.
36.	Environmental Monitors	MO(1)	NA	18 months	(1) Check functioning. <SEE 3.3.8>
37.	Reactor Manual Trip	~~NA~~	PS	~~NA~~ SR 3.3.2.1	
38.	Reactor Building Emergency Sump Level	NA	NA	18 months	(A9) SR 3.3.2.1 Freq
39.	Steam Generator Water Level	WE	NA	18 months	
40.	Turbine Overspeed Trip	NA	NA	18 months	
41.	Engineered Safeguards Channel 1 HP Injection & Reactor Building Isolation Manual Trip	NA	18 months	NA	Includes Reactor Building isolation of non-essential systems only
42.	Engineered Safeguards Channel 2 HP Injection & Reactor Building Isolation Manual Trip	NA	18 months	NA	Includes Reactor Building isolation of non-essential systems only
43.	Engineered Safeguards Channel 3 LP Injection Manual Trip	NA	18 months	NA	<SEE 3.3.6>

Supp 2

Supp 5

Page 4 of 4

Amendment No. 228(Unit 1)
Amendment No. 229(Unit 2)
Amendment No. 225(Unit 3)

Specification 3.3.2

~~Table 4.1-1 (CONTINUED)~~ (A1) <except as marked>

Channel Description	Check	Test	Calibrate	Remarks
33. Containment Temperature	NA	NA	18 months (R1)	
34. Incore Neutron Detectors	MO(1)	NA	NA	(1) Check functioning; including functioning of computer readout or recorder readout. <SEE 3.2>
35. Emergency Plant Radiation Instruments	MO(1)	NA	18 months	(1) Battery check. (R1)
36. Environmental Monitors	MO(1)	NA	18 months	(1) Check functioning.
37. Reactor Manual Trip	NA	PS	NA	<SEE 3.3.2>
38. Reactor Building Emergency Sump Level	NA	NA	18 months (R1)	
12 ~~39.~~ Steam Generator Water Level	~~W~~ 31 days (126)	NA	18 months	
40. Turbine Overspeed Trip	NA	NA	18 months (R1)	
41. Engineered Safeguards Channel 1 HP Injection & Reactor Building Isolation Manual Trip	NA	18 months	NA	Includes Reactor Building isolation of non-essential systems only
42. Engineered Safeguards Channel 2 HP Injection & Reactor Building Isolation Manual Trip	NA	18 months	NA	Includes Reactor Building isolation of non-essential systems only
43. Engineered Safeguards Channel 3 LP Injection Manual Trip	NA	18 months	NA	<SEE 3.3.6>

Page 4a of 111

Amendment No. 228(Unit 1)
Amendment No. 229(Unit 2)
Amendment No. 225(Unit 3)

Specification 3.3.8

ITS Section 3.4

ID 240

Subject: Revised JFD 61 for Section 3.4 to state that the proposed change is consistent with how Oconee currently operates the plant.

due to the multiple alignment requirements for DHR on Unit 1 and 2 when operating at elevated RCS pressure and because of the dual function of the components (Unit 1, 2 and 3) that comprise the decay heat removal mode of the Low Pressure Injection System. Manual alignment for DHR operation is acceptable since the operation of DHR loops is not an automatic function.

RCS pressure must be maintained significantly greater than 125 psig for operation of the reactor coolant pumps. During operation of a DHR loop when RCS pressure is greater than approximately 125 psig, the ONS Unit 1 and Unit 2 design requires unique alignments of the operating DHR loop due to pressure limits of the DHR cooler. These two DHR loop alignments are referred to as high pressure DHR mode and switchover DHR mode. Operation in high pressure mode requires using either the A or C LPI pump and the A DHR Cooler. Operation in switchover mode requires using either the A or C LPI pump and the B DHR cooler. The B LPI pump cannot be used in either high pressure or switchover mode. Consequently, the B LPI pump cannot be used as an OPERABLE DHR pump when RCS pressure is greater than approximately 125 psig. When either the A or C LPI pump is in operation in high pressure mode using the A DHR cooler, the redundant LPI pump and B DHR cooler remain OPERABLE since they are capable of being realigned to the switchover mode of DHR operation.

For Unit 1 and 2 during operation of a DHR loop when RCS pressure is less than approximately 125 psig, and during any operation of a DHR loop on unit 3, any one of the LPI pumps may be in operation through either DHR cooler. One of the LPI pumps is usually maintained in LPI injection alignment to maintain RCS makeup capability.

The addition of the Note to 3.4.6, 3.4.7 and 3.4.8 maintains current allowances regarding operation of the DHR loops in MODE 4 and 5 while ensuring one DHR loop is OPERABLE and in operation and a second loop is
5 OPERABLE. Taking credit for the unique alignments of the operating DHR
5 loop described above is consistent with how Duke operates Oconee Units
5 1, 2, and 3.

ITS Section 3.4

ID 251

Subject: Revised NUREG markup for LCO 3.4.5 and LCO 3.4.6 to annotate deviation from the NUREG with JFD 62.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.5 RCS Loops – MODE 3

LCO 3.4.5 Two RCS loops shall be OPERABLE and at least one RCS loop shall be in operation. 3.1.1.b

Not be in operation — TSTF 153

Supp.3 / Supp5 / Supp3

62 — not be in operation

---NOTE---

All reactor coolant pumps (RCPs) may ~~be de-energized~~ for ≤ 8 hours per 24 hour period for the transition to or from the Decay Heat Removal System, and all RCPs may ~~be de-energized~~ for ≤ 1 hour per 8 hour period for any other reason, provided: DOC M48

a. No operations are permitted that would cause reduction of the RCS boron concentration; and 3.1.1.a,2

b. Core outlet temperature is maintained at least ~~X~~10~~X~~°F below saturation temperature. (1) DOC M12

Supp.3 APPLICABILITY: MODE 3. 57 3.1.1.b

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ~~required~~ RCS loop inoperable.	A.1 Restore ~~required~~ RCS loop to OPERABLE status.	72 hours DOC M10
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 4.	12 hours DOC M10

(continued)

TSTF-153

Not be in operation

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.6 RCS Loops – MODE 4

LCO 3.4.6 Two loops consisting of any combination of RCS loops and decay heat removal (DHR) loops shall be OPERABLE and at least one loop shall be in operation.

Doc M13

Supp. 3
Supp. 5
Supp 3

62

not be in operation

(1)

---NOTE---

All reactor coolant pumps (RCPs) may ~~be de-energized~~ for ≤ 8 hours per 24 hour period for the transition to or from the DHR System, and all RCPs and DHR pumps may be de-energized for ≤ 1 hour per 8 hour period for any other reason, provided:

Doc M13

a. No operations are permitted that would cause reduction of the RCS boron concentration; and 3.1.1.a.2

b. Core outlet temperature is maintained at least 10°F below saturation temperature. Doc M13

Doc M13

Insert 3.4-9A

61

Supp 3

APPLICABILITY: MODE 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required ~~RCS~~ loop inoperable.	A.1 Initiate action to restore a second loop to OPERABLE status.	Immediately

Doc M13

58

Supp. 3

AND

~~Two DHR loops inoperable.~~

(continued)

AND

A.2 ---Note---
Only required if DHR loop is OPERABLE.

Be in MODE 5. 24 hours

ITS Section 3.4

ID 252

Subject: Revised continued header on Page B 3.4-86 to show continuation of SR 3.4.15.1.

BASES

5 SURVEILLANCE REQUIREMENTS

SR 3.4.15.1 (continued)

instrument reliability and is reasonable for detecting off normal conditions.

SR 3.4.15.2

SR 3.4.15.2 requires the performance of a CHANNEL FUNCTIONAL TEST of the required containment atmosphere radioactivity monitor. The test ensures that the monitor can perform its function in the desired manner. The test verifies the alarm setpoint and relative accuracy of the instrument string. The Frequency of 92 days considers instrument reliability, and operating experience has shown it proper for detecting degradation.

SR 3.4.15.3 and SR 3.4.15.4

These SRs require the performance of a CHANNEL CALIBRATION for each of the required RCS leakage detection instrumentation channels. The calibration verifies the accuracy of the instrument string, including the instruments located inside containment. The Frequency of 18 months is a typical refueling cycle and considers channel reliability. Industry operating experience has proven this Frequency is acceptable.

REFERENCES

1. UFSAR, Section 3.1.

2. 10 CFR 50.36.

ITS Section 3.4

ID 261

Subject: Revised DOC L7 and corresponding NSHC to change reference to CTS Table 4.1-2 to Table 4.1-3.

limits. The 30 minute Completion Time reflects the urgency of restoring the parameters to within the analyzed range. Most violations will not be severe, and the activity can be accomplished in this time in a controlled manner. The allowance permitting 30 minutes to restore these parameters to within limits is a less restrictive requirement upon unit operation and is consistent with the NUREG.

L5 A CTS provision comparable to ITS 3.4.9, Action A does not exist. With pressurizer level below specified limits, actions are specified by CTS 3.0. CTS 3.0 requires the unit be placed in Hot Shutdown within 12 hours. ITS 3.4.9 Action A provides 1 hour to restore pressurizer level to within limits. The 1 hour Completion Time is considered to be a reasonable time for draining excess liquid and recognizes the low probability of an event occurring in the time period. The allowance of one hour to restore pressurizer level to within limits is a less restrictive requirement upon unit operation and is consistent with the NUREG.

L6 A provision comparable to ITS 3.4.10 Action A does not exist. With a pressurizer safety valve inoperable, CTS 3.0 requires the unit be placed in Hot Shutdown within 12 hours. ITS 3.4.10 Action A permits 15 minutes to restore a pressurizer safety valve to OPERABLE status. The Completion Time of 15 minutes reflects the importance of maintaining the RCS overpressure protection system while still providing at least some opportunity to correct the situation. The allowance of 15 minutes to restore a pressurizer safety valve to OPERABLE status is a less restrictive requirement upon unit operation and is consistent with the NUREG.

5 L7 CTS Table 4.1-3 Item 1.a requires gamma isotopic analysis of the RCS at a frequency of 3 times/week. The gamma isotopic analysis is used for the comparison to the CTS gross activity limit. ITS SR 3.4.11.1 has a frequency of 7 days. The 7 day Frequency is reasonable considering the unlikelihood of a gross fuel failure during this time period. The reduction in frequency to 7 days is a less restrictive requirement and is consistent with the NUREG.

L8 A CTS provision comparable to the ITS Note to SR 3.4.11.3 does not exist. This ITS Note permits the E determination to be performed 31 days after operating for a minimum of 2 EFPD and 20 days of MODE 1 since the reactor was last subcritical for $\geq$ 48 hours. This ensures the radioactive materials are at equilibrium so the analysis for E is representative and not skewed by a crud burst or other similar abnormal event. The provision to not require performance of SR 3.4.11.3 until 31 days after operating for a minimum of 2 EFPD and 20 days of MODE 1 since the reactor was last subcritical for $\geq$ 48 hours is a less restrictive requirement upon unit operation and is consistent with the NUREG.

L9 If the PIV requirements of CTS 3.1.6.10.c and d are not met, CTS 3.1.6.10.e requires the unit be placed in cold shutdown within 24 hours. In this Condition, ITS 3.4.14 Action B requires the unit be in MODE 3

LESS RESTRICTIVE CHANGE L7

The Oconee Nuclear Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1430, "Standard Technical Specifications, Babcock and Wilcox Plants." The proposed changes involve making the current Technical Specifications (CTS) less restrictive. Below is the description of this less restrictive change and the No Significant Hazards Consideration for conversion to NUREG-1430.

5 CTS Table 4.1-3 Item 1.a requires gamma isotopic analysis of the RCS at a frequency of 3 times/week. The gamma isotopic analysis is used for the comparison to the CTS gross activity limit. ITS SR 3.4.11.1 has a frequency of 7 days. The 7 day Frequency is reasonable considering the unlikelihood of a gross fuel failure during this time period. The reduction in frequency to 7 days is a less restrictive requirement and is consistent with the NUREG.

In accordance with the criteria set forth in 10 CFR 50.92, Duke Energy has evaluated this proposed Technical Specification change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion.

1. **Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?**

   The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. Performance of the RCS specific activity surveillance is not assumed to be an initiator of any analyzed event. As a result, the probability of an accident occurring is independent of the RCS specific activity surveillance frequency. Additionally, since performance of the RCS specific activity surveillance is not an initial condition of any analyzed accident, the consequences of an accident are not affected by the RCS specific activity surveillance frequency. Additionally, ITS LCO 3.0.4 requires the LCO to be met even though performance of the SR can be delayed. Therefore the probability and consequence of an accident previously evaluated are not significantly increased.

2. **Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?**

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The RCS specific activity surveillance frequency cannot create the potential for new or different kind of accident.

ITS Section 3.5

ID 253

Subject: Revised CTS markup page 3.3-2 for ITS 3.5.2 to remove incorrect annotation of DOC A17.

Specification 3.5.2

(A1) (except as marked)

MODE 3

ACT C / ACT E: within 72 hours, the reactor shall be placed in a hot shutdown condition within 12 hours. If the requirements of Specification 3.3.1.b(1) are not met within 24 hours following hot shutdown, the reactor shall be placed in a condition with RCS temperature below 350° F within an additional 24 hours. (A17)

LCO Note c. For all Units, when reactor power is greater than 60% FP:

(1) In addition to the requirements of Specification 3.3.1.a(1) and 3.3.1.b(1) above, the remaining HPI pump and valves HP-409 and HP-410 shall be operable and valves HP-99 and HP-100 shall be open. (LA1) (LA1)

(2) Tests or maintenance shall be allowed on any component of the HPI system, provided two trains of HPI system are operable. If the inoperable component is not restored to operable status within 72 hours, reactor power shall be reduced below 60% FP within an additional 12 hours. (AIS)

ACT A / ACT B: (≤) – (A14)

3.3.2 Low Pressure Injection (LPI) System

a. When the RCS, with fuel in the core, is in a condition with pressure equal to or greater than 350 psig or temperature equal to or greater than 250°F:

(1) Two independent LPI trains, each comprised of an LPI pump and a flowpath capable of taking suction from the borated water storage tank and discharging into the RCS automatically upon ESPS actuation (LPI segment), together with two LPI coolers and two reactor building emergency sump isolation valves (manual or remote-manual) shall be operable.

(2) Tests or maintenance shall be allowed on any component of the LPI system provided the redundant train of the LPI system is operable. If the LPI system is not restored to meet the requirements of Specification 3.3.2.a(1) above within 72 hours, the reactor shall be placed in a hot shutdown condition within 12 hours. If the requirements of Specification 3.3.2.a(1) are not met within 24 hours following hot shutdown, the reactor shall be placed in a condition with RCS pressure below 350 psig and RCS temperature below 250°F within an additional 24 hours.

(SEE 3.5.3)

Supp 5

ITS Section 3.5

ID 254

Subject: Provide Page 2 of Attachment 3 for Section 3.5 which was inadvertently left out of Supplement 3.

or greater than 350 psig or temperature equal to or greater than 250°F. ITS 3.5.3 requires the LPI trains to be OPERABLE in MODES 1, 2, and 3, which is equivalent to the CTS requirements, as described in the DOCs for Section 1.0. The CTS applicability statement "with fuel in the core" is deleted since the ITS definition of MODE is premised on "fuel in the vessel." This format change is administrative and is consistent with the NUREG.

A8 CTS 4.0.4 requires inservice testing of ASME Code Class 1, 2, and 3 pumps, which includes HPI/LPI pump flow testing. SR 3.5.2.3 and SR 3.5.3.3 are added to explicitly require verification that each HPI and LPI pump's developed head at the test flow point is greater than or equal to the required developed head in accordance with the Inservice Testing (IST) Program. Since these requirements are encompassed by the IST program, the addition of the explicit requirements is considered administrative. The proposed change is consistent with the NUREG.

3 A9 CTS 3.3.1.a and CTS 3.3.1.b Applicability for the HPI System is when the RCS, with fuel in the core, is above 350°F. ITS 3.5.2 Applicability for HPI System is MODE 1 and 2, and MODE 3 with RCS temperature > 350°F. This is equivalent to the CTS requirements as described in the DOCs for Section 1.0. The CTS applicability statement "with fuel in the core" is deleted since the ITS definition of MODE is premised on "fuel in the vessel." This format change is administrative and is consistent with the NUREG.

A10 CTS 3.3.4 requires the BWST to be OPERABLE when the RCS, with fuel in the core, is in a condition with pressure equal to or greater than 350 psig or temperature equal to or greater than 250°F and subcritical. ITS 3.5.4 requires the BWST to be OPERABLE in MODES 1, 2, and 3, which is equivalent to the CTS requirements as described in the DOCs for Section 1.0. The CTS applicability statement "with fuel in the core" is deleted since the ITS definition of MODE is premised on "fuel in the vessel." This format change is administrative and is consistent with the NUREG.

A11 CTS 3.3.2.a(2) requires the reactor be placed in hot shutdown (equivalent to ITS MODE 3) within 12 hours when one LPI train is inoperable in excess of 72 hours. If the inoperable train is not restored within 24 hours following hot shutdown, CTS then requires the reactor be placed in a condition with RCS pressure below 350 psig and RCS temperature below 250°F within an additional 24 hours. ITS 3.5.3 Required Action C.2 requires the unit be placed in MODE 4 in 60 hours. The 60 hour Completion Time is derived by adding the CTS completion times of 12 hours to be in hot shutdown, the 24 hours following hot shutdown and the "additional" 24 hours. This retention of the CTS completion times is considered administrative.

A12 CTS 3.3.4 requires the BWST to contain a minimum level of 46 feet of water. ITS 3.5.4.2 requires the BWST volume be verified $\geq$ 350,000 gallons. The CTS minimum level equates to the ITS minimum volume.

ITS Section 3.5

ID 263

Subject: Removed DOC L7 and corresponding affected DOCs, NSHC and NUREG markup. Corrected typo in DOC LA5 - changed "his" to "This."

ADMINISTRATIVE CHANGES

A1 Reformatting and renumbering are in accordance with NUREG-1430, Revision 1. As a result, the Technical Specifications should be more readily readable, and therefore understandable, by plant operators as well as other users. The reformatting, renumbering, and rewording process involves no technical changes to existing Technical Specifications.

Editorial rewording (either adding or deleting) is made consistent with NUREG-1430, Revision 1. During Improved Technical Specification (ITS) development certain wording preferences or English language conventions were adopted which resulted in no technical changes (either actual or interpretational) to the Technical Specifications. Additional information has also been added to more fully describe each subsection. This wording is consistent with NUREG-1430, Revision 1. Since the design is already approved by the NRC, adding more detail does not result in a technical change.

A2 CTS Bases are completely replaced by revised bases that reflect the format and applicable content of proposed ITS Section 3.5. The revised Bases are shown in the proposed ITS Bases for Section 3.5.

A3 CTS 3.3.3 specifies volume, boric acid concentration and nitrogen gas pressure requirements for the Core Flood Tanks (CFTs). This CTS acceptance criteria is incorporated into ITS SR 3.5.1.2, SR 3.5.1.3, and
5 SR 3.5.1.4. CTS 3.3.3 also requires that the CFT electrically operated discharge valves be open and breakers open. These requirements are incorporated into ITS SR 3.5.1.1 and SR 3.5.1.5. These changes are administrative and are consistent with the NUREG.

A4 Not used.

A5 CTS Table 4.1-3, Note "*" clarifies that the SR Frequency is not applicable if reactor is in a cold shutdown condition for a period exceeding the sampling frequency. This note is deleted since it is unnecessary. Since the Core Flood Tanks (CFTs) and Borated Water Storage Tank (BWST) are not required to be OPERABLE in MODE 5 (equivalent to CTS Cold Shutdown condition), ITS LCO 3.5.1 and 3.5.4 and associated SRs are not applicable. As such, the proposed change is considered administrative and is consistent with the NUREG.

A6 CTS 3.3.4.b specifies the minimum level, minimum boron concentration and minimum temperature requirements for the BWST. This CTS acceptance criteria is incorporated into ITS SR 3.5.4.1, SR 3.5.4.2 and SR 3.5.4.3 except as noted in Discussion of Change (DOC) L8 for this Section. The proposed change administrative and is consistent with the NUREG.

A7 CTS 3.3.2.a.1 requires two independent LPI trains to be OPERABLE when the RCS, with fuel in the core, is in a condition with pressure equal to

5 L7 Not used.

L8 CTS 3.3.4.b requires the BWST minimum boron concentration to be within the limit specified in the Core Operating Limits Report (COLR) at a minimum temperature of 50°F. The minimum temperature is an allowable value based on the uncertainties associated with the instrument measuring this parameter. The ITS SR 3.5.4.1 acceptance criteria of 45°F is the associated analytical limit. Changing the acceptance criteria from an allowable value based on the uncertainties associated with the instrument channel to an analytical limit for the parameter being measured is considered less restrictive on plant operations. The ITS SR 3.5.4.1 specifies the actual temperature assumed in the safety analyses without regard to instrument inaccuracy. The proposed change is considered acceptable since instrument uncertainties must be applied in the surveillance procedures to ensure the analytical limits are not exceeded. The ITS consistently uses analytical limits for the SR acceptance criteria. This makes the value in the Technical Specification instrument independent and permits the use of other instruments to confirm the parameter is within limits (although the instrument may have different accuracies). The ITS uses an allowable value only when associated with a measuring device.

L9 CTS 4.5.1.1.1 and 4.5.1.1.2.a(1) require a test signal to be applied to demonstrate actuation of the HPI and LPI System for ECCS operation. ITS SRs 3.5.2.4 and 3.5.3.4 require verifying that each HPI/LPI automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal. ITS SRs 3.5.2.5 and 3.5.3.5 require verifying that each HPI/LPI pump starts automatically on an actual or simulated actuation signal. ITS allows the use of an "actual or simulated" signal to verify the HPI/LPI pumps and valves actuate on an automatic

LA4 CTS 4.5.1.1.3 requires a Core Flooding System test be conducted to demonstrate proper operation of the system. This test verifies that the check and isolation valves in the CFT discharge lines operate properly. This requirement is relocated to UFSAR Chapter 16. This detail is not required to be in the ITS to provide adequate protection of the public health and safety, since the ITS still retains the requirement for CFT OPERABILITY. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the Technical Specification requirements. Furthermore, NRC and utility resources associated with processing license amendments to these requirements will be reduced. Therefore, relocation of this detail is acceptable. Changes to the UFSAR are controlled by the provisions of 10 CFR 50.59.

LA5 CTS 4.5.1.2.1.a specifies that Valves LP-17, -18 shall only be tested every cold shutdown unless previously tested during the current quarter. These valves are boundary valves between high pressure and low pressure design piping. This restriction on functional testing is intended to eliminate the potential for overpressurizing the low pressure system. 5 This requirement is relocated to UFSAR Chapter 16. This detail is not required to be in the ITS to provide adequate protection of the public health and safety, since the ITS still retains the requirement for LPI OPERABILITY. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the Technical Specification requirements. Furthermore, NRC and utility resources associated with processing license amendments to these requirements will be reduced. Therefore, relocation of this detail is acceptable. Changes to the UFSAR are controlled by the provisions of 10 CFR 50.59.

LA6 CTS 4.5.1.2.1.b provides valve numbers associated with LPI System valve names. The name of the valve is retained in the Technical Specifications while the detail is moved to the Bases for ITS 3.5.2 and 3.5.3. This information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation or Surveillance Requirement, but rather describe an acceptable method of compliance. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. The Bases will be controlled by the Bases Control Process in Chapter 5 of the proposed Technical Specifications. This change is consistent with the NUREG.

LESS RESTRICTIVE CHANGE L7

5 Not used.

5 Not used.

CTS

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY	
SR 3.5.1.1	Verify each CFT isolation valve is fully open.	12 hours	DOC M|
SR 3.5.1.2	Verify borated water volume in each CFT is ≥ ~~[7555 gallons]~~ 1010 ft³ (1), [ ] ft and ≤ ~~8005 gallons~~ 1070 ft (1), [ ] ft (7).	12 hours	DOC M|
SR 3.5.1.3	Verify nitrogen cover pressure in each CFT is ≥ ~~[575]~~ 575 psig and ≤ ~~[625]~~ 625 psig (1).	12 hours	DOC M|
SR 3.5.1.4	Verify boron concentration in each CFT is ~~≥ [2270] ppm and ≤ [3500] ppm~~ within the limit specified in the COLR (8).	31 days AND -----NOTE----- Only required to be performed for affected CFT ---------- Once within ~~6~~ 12 hours after each solution volume increase of ≥ ~~[80]~~ (1) gallons that is not the result of addition from (a) ~~the~~ borated water ~~storage tank~~ source that meets CFT boron concentration requirements (9)	T4.1-3, Item 3

(continued)

ITS Section 3.5

ID 266

Subject: Revised Applicable Safety Analyses for B 3.5.1 to add parenthetical phrase "(allowable value)" after maximum nitrogen cover gas pressure of 625 psig.

BASES

APPLICABLE SAFETY ANALYSES (continued)

The CFTs are part of the primary success path that functions or actuates to mitigate an accident that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The minimum volume requirement for the CFTs ensures that both CFTs can provide adequate inventory to reflood the core (to the hot spot) and downcomer following a LOCA. The downcomer then remains flooded until the HPI and LPI systems start to deliver flow.

The maximum volume limit is based upon the need to maintain adequate gas volume to ensure proper injection, ensure the ability of the CFTs to fully discharge, and limit the maximum amount of boron inventory in the CFTs. The specified values (1010 ft^3 and 1070 ft^3) are allowable values. The corresponding CFT levels are 12.56 ft and 13.44 ft (allowable values).

The minimum nitrogen cover pressure requirement of 575 psig (allowable value) ensures that the contained gas volume will generate discharge flow rates during injection that are consistent with those assumed in the safety analysis.

The maximum nitrogen cover pressure limit of 625 psig (allowable value) ensures that the amount of CFT inventory that is discharged while the RCS depressurizes, and is therefore lost through the break, will not be larger than that predicted by the safety analysis. 5

The maximum allowable boron concentration specified in the COLR for the CFTs ensures that boron precipitation will not occur following a LOCA.

The minimum boron requirement of the COLR is selected to ensure that the reactor will remain subcritical during the reflood stage of a large break LOCA. During a large break LOCA, all CONTROL RODS are assumed not to insert into the core until reflood, and the initial reactor shutdown is accomplished by void formation during blowdown. Sufficient boron concentration must be maintained in the CFTs to prevent a return to criticality during reflood. After reflood, the analysis assumes one half of the CONTROL ROD worth is available.

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

a closed isolation valve cannot be opened, or the proper water volume or nitrogen cover pressure cannot be restored, the full capability of one CFT is not available and prompt action is required to place the reactor in a MODE in which this capability is not required.

In addition to LOCA analyses, the CFTs have been assumed to operate to provide borated water for reactivity control for severe overcooling events such as a ~~large~~ steam line break (SLB).

The CFTs are part of the primary success path that functions or actuates to mitigate a ~~DBA~~ that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The minimum volume requirement for the CFTs ensures that both CFTs can provide adequate inventory to reflood the core and downcomer following a LOCA. The downcomer then remains flooded until the HPI and LPI systems start to deliver flow.

The maximum volume limit is based upon the need to maintain adequate gas volume to ensure proper injection, ensure the ability of the CFTs to fully discharge, and limit the maximum amount of boron inventory in the CFTs. Values of ~~[7555] gallons~~ and ~~[8005] gallons~~ are specified. These values allow for instrument inaccuracies. Values of other parameters are treated similarly.

The minimum nitrogen cover pressure requirement of ~~[525]~~ psig ensures that the contained gas volume will generate discharge flow rates during injection that are consistent with those assumed in the safety analysis.

The maximum nitrogen cover pressure limit of ~~[625]~~ psig ensures that the amount of CFT inventory that is discharged while the RCS depressurizes, and is therefore lost through the break, will not be larger than that predicted by the safety analysis. ~~The~~ maximum allowable boron concentration ~~of [3500] ppm~~ in the CFTs ensures that the sump pH ~~will be maintained between 7.0 and 11.0~~ following a LOCA.

The minimum boron requirement of [2270] ppm is selected to ensure that the reactor will remain subcritical during the reflood stage of a large break LOCA. During a large break LOCA, all control rods ~~assemblies~~ are assumed not to insert

(continued)

ITS Section 3.5

ID 273

Subject: Revised JFD 16 to correctly point to Condition D (instead of E) consistent with relettering of ACTIONS made in Supplement 3 change

using installed flow indicators which are required OPERABLE by LCO 3.3.8, "Post Accident Monitoring Instrumentation."

15 NUREG LCO 3.5.2 and 3.5.3 are modified to incorporate ONS CTS requirements necessary to appropriately consider unique design and analysis requirements. ITS LCO 3.5.3 addresses only LPI System requirements. NUREG LCO 3.5.3 is modified to require two LPI trains to be OPERABLE in MODES 1, 2 and 3 and one LPI train to be OPERABLE in MODE 4 (as indicated by ITS LCO 3.5.3 Note 1).

NUREG LCO 3.5.3 Note 2, as renumbered by TSTF-090, Revision 1, is deleted since ITS 3.5.3 applies to LPI only. LCO 3.5.3 Note 1, as added by TSTF-090, Revision 1, is modified (and renumbered as ITS LCO 3.5.3 Note 2) to apply "during alignment, when aligned and when operating" to remove the confusion associated with whether the DHR/LPI train was OPERABLE during the swapover and whether the DHR/LPI pump had to be running in order to satisfy the requirement that the system be in operation. The annotation that the manual control can be accomplished either locally or remotely preserves current operational flexibility.

Appropriate SRs, similar to those adopted for the HPI System, are added for the LPI System (ITS SRs 3.5.3.1 - SR 3.5.3.6) to demonstrate compliance with LCO requirements.

16 NUREG LCO 3.5.3 Actions were altered, while retaining the original intent of the Required Actions, in order to properly reflect the corrective actions should the LCO not be met. NUREG Condition B is designated as ITS Condition A. Condition A is entered when one train of LPI is inoperable in MODES 1, 2 or 3. ITS Required Action A.1 allows 72 hours to restore the LPI train to OPERABLE status. This is consistent with the CTS 3.3.2.a(2) restoration time. The 72 hour Completion Time is an acceptable allowance based on the fact that the redundant LPI train can still satisfy the required ECCS safety function for the specified LCO Applicability. Condition C is entered when the Required Action and associated Completion Time of Condition A are not met. ITS Required Action C.1 requires that the unit be in MODE 3 within 12 hours and MODE 4 within 60 hours. This Completion Time in conjunction with the Completion Time of ITS Required Action A.1 (72 hours) is in accordance with CTS 3.3.2(a) requirements for the restoration of operability or completion of compensatory measures for the LPI systems. Further, the combination of ITS Conditions A and C preserves the philosophy of removing the unit from the MODES or other specified conditions for Applicability.

5 NUREG Condition A is designated as ITS Condition D. Condition D is entered when the required LPI train is inoperable during MODE 4. ITS
5 Required Action D.1 requires that action be immediately initiated to restore the decay heat removal (DHR) loop to an OPERABLE status. This Required Action and its associated Completion Time are premised on the recognition that an ECCS safety function has been lost. Further, this

Required Action and its associated Completion Time are structured such that no requirement for a reduction in RCS temperature exists (i.e., LCO 3.0.3 is not entered). If both LPI trains are inoperable, the corrective action is to restore at least one LPI train to an OPERABLE status prior to cooling the unit down and into a MODE that requires
5 operation of the DHR mode of the LPI System. Required Action D.2 is inserted to provide a Required Action to place the unit in MODE 5 if the DHR mode of one LPI train is available despite the inoperability of both of the LPI trains. ONS has a third LPI pump (non ES) that can be used for DHR. This Required Action is conditional based on a NOTE that directs that this action is required only if the DHR mode of one LPI train is OPERABLE. If the cause of the inoperability for both LPI trains also made the DHR mode inoperable, then no attempt to cool down
5 the unit is required. Required Action D.2 is inserted to ensure that a cooldown to MODE 5 is initiated provided the required DHR capability exists. These changes are consistent with NUREG LCO 3.4.5 and LCO 3.4.6 Actions when a decay heat removal system is unavailable.

17 Not used.

18 In general, current licensing basis (CLB) permits 12 hours to place a unit in Hot Shutdown when an LCO is not met (refer to JFD 5). However, the CTS shutdown requirement for the BWST not being restored to OPERABLE status within one hour is to place the unit in Hot Shutdown (equivalent to ITS MODE 3) within 6 hours and Cold Shutdown (equivalent to ITS MODE 5) within and additional 30 hours, when the concentrated boric acid tank is available. When the CBAST is not available, no time is allowed and CTS LCO 3.0 must be entered requiring the unit to be placed in Hot Shutdown in 12 hours and in Cold Shutdown within the following 24 hours. To maintain consistency with CTS LCO 3.0, the Completion Time for ITS 3.5.4 Required Action C.1 is changed to 12 hours.

19 NUREG SR 3.5.2.3 is modified to adopt the current method of minimizing the potential for water hammer and pump cavitation. NUREG SR 3.5.2.3 verifies that the ECCS piping is full of water. At ONS, the physical design of the HPI and LPI systems are such that the SR could not be applied to all portions of the piping because of the inability to perform venting operations to satisfy the SR due to the absence of vents, physical danger associated with the evolution or due to localized radiation levels. Therefore, the ITS requires HPI/LPI pump casings be vented every 31 days consistent with CTS Table 4.1-2, Item 10 requirements. Venting the HPI/LPI pump casings periodically reduces the potential that such voids and pockets of entrained gases can adversely affect operation of the HPI/LPI Systems.

20 Not used.

ITS Section (3.5) 3.6 3.7

ID 241

Subject: Revised JFD's related to automatic position verification to clarify that CLB does not require position verification of any valves.

21 NUREG 3.5.3 is modified to incorporate ONS CTS requirements necessary to appropriately consider unique analysis requirements. In the event of a Core Flood line break (classified as a small break LOCA) concurrent with a single failure on the unaffected LPI train opposite the Core Flood line break, the LPI discharge header crossover valves must be capable of being manually opened. This action, along with manually opening associated LPI cooler outlet throttle valve and LPI header isolation valve will allow cross-connection of the OPERABLE LPI pump discharge to the intact LPI/Core Flood tank header to provide abundant long term cooling. ITS 3.5.3 LCO Note 3 is added to explicitly require the LPI discharge header crossover valves to be OPERABLE to manually open in MODES 1, 2, and 3. ITS 3.5.3 ACTION B requires the LPI discharge header crossover valves to be restored to OPERABLE status with 72 hours of being discovered manually inoperable to open in MODE 1, 2, and 3. The 72 hour Completion time of ITS 3.5.3 Required Action B.1 is based on NRC recommendations (NRC Memorandum to V. Stello, Jr., from R.L. Baer, "Recommended Interim Revisions to LCOs for ECCS Components," December 1, 1975) that are based on risk evaluation and are reasonable time for repairs. This is considered appropriate since loss of crossover capability is equivalent to a loss of a single train of LPI as it relates to providing abundant long term cooling. ITS SR 3.5.3.7 is added to require each LPI discharge header crossover valve, LPI cooler outlet throttle valve and LPI header isolation valve to be cycled open once every 18 months. This is consistent with CTS requirements for these valves and is considered appropriate based on operating experience.

22 NUREG SR 3.5.2.2 requires verification that manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. This requirement is modified to exclude automatic valves from this SR. The position of automatic valves in the valve flow path is irrelavent to the OPERABILITY of the ECCS since each automatic valve will either be in the required position or will automatically reposition itself to the required position upon reciept of an automatic initiation signal. Consequently automatic valves are in the correct position (with respect to ECCS OPERABILITY) regardless of the actual valve position.
5 Therefore, there is no reason for verifying the position of these
5 valves. Currently, there are no CTS requirements for verifying the
5 position of valves in flow paths. However, the requirement to verify
5 manual and non-automatic power operated valves is added for consistency
5 with the NUREG. The requirement to verify the position of automatic
5 valves is not included since there is no correct position for these
5 valves and there are no CTS requirements.

ITS Section 3.6

ID 267

Subject: Revised DOC M7 to correctly characterize CTS 3.6.3.b.2 requirement.

M5 CTS 1.7.b provides an exception to CTS 1.7.a, which requires both doors of the personnel hatch and emergency hatch to be closed and sealed for containment integrity to exist, that requires only one door of each hatch to be closed and sealed during personnel passage through the hatches. CTS 3.6.3.a.1, which is an exception to the containment integrity requirements of CTS 3.6.1 and 3.6.2, allows momentary passage (not to exceed 10 minutes for each opening) through an outer air lock door for repair or test of an inner air lock door gasket provided the outer door gasket is leak tested within 24 hours after opening of the outer door. LCO 3.6.2, ACTIONS Note 1 allows entry and exit, without entering LCO 3.6.1, to perform repairs on affected air lock components and permits the containment boundary to be temporarily not intact if access to the barrel side of the door is required. The ITS Bases clarifies that this means the door must be immediately closed after each entry and exit. This is slightly more restrictive than CTS which allows 10 minutes to close a door for each opening. ITS LCO 3.6.2, Required Actions A Note 2 limits the period of time that this provision can be applied to 7 days when one door in both air locks is inoperable. The proposed Completion Times are adequate to complete the required actions and are therefore acceptable. These notes, which are consistent with the NUREG, are considered additional restrictions on unit operation.

M6 CTS 3.6.3.b.3 provides shutdown requirements for unit conditions other than those contained in CTS 3.6.3.b.1 and 2, with one or more Reactor Building purge valves open and not closed within one hour. 3.6.3.b.1 and 2 allow exceptions to containment integrity requirements to allow reactor building purge system operation and testing and/or maintenance on the purge valves. CTS 3.6.3.b.3 requires the unit be in hot shutdown (equivalent to ITS MODE 3) within 12 hours and within an additional 24 hours the reactor coolant system temperature be below 250°F and pressure below 350 psig if an open purge valve(s) is not closed within 1 hour. ITS 3.6.3 Required Action D.1 requires the unit be in MODE 3 in 12 hours and MODE 5 in 36 hours. MODE 5 is defined as subcritical with the average coolant temperature $\leq$ 200°F. CTS criteria specified as 250°F is considered more limiting than the 350 psig criteria, since the saturation temperature of water at 350 psig is > 435°F. As such, the proposed ITS is slightly more restrictive in that the unit must be in MODE 5 (ITS 3.6.3, Required Action B.2) rather than the unit conditions (< 250°F and < 350 psig) described in the CTS. The proposed change is consistent with the NUREG.

M7 CTS 3.6.3.b.1 and 3.6.3.b.2 provide exceptions to the requirement to have the Reactor Building purge and exhaust isolation valves closed. These exceptions allow the reactor building purge valves to be open for
5 purge operation when RCS temperature is below 250°F and pressure is
5 below 350 psig and allow one valve to be open in a penetration for
5 testing or maintenance per CTS 4.4.4.1 and 3.6.6 when RCS temperature is
5 > 250°F but the reactor is at or below hot shutdown. CTS 4.4.4.4 requires these valves be exercise tested prior to use of the purge
5 system. Oconee no longer uses these provisions. As such, these options

5 are not retained in the ITS. The deletion of these allowances, although not used, is more restrictive.

M8 CTS 3.6.5 requires a position check of all (inside and outside) manual containment isolation valves (CIV) "Prior to criticality following a refueling shutdown." The ITS separates the requirements for position checks dependent upon the location of the CIV (outside or inside the containment). ITS SR 3.6.3.2 requires position checks of CIVs outside the containment on a Frequency of 31 days. The ITS SR 3.6.3.3 requires the valve position check of CIVs inside containment to be performed "Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days." The 31 days frequency for position checks of CIVs outside containment and the timing of the performance of the position checks for CIVs inside containment are more restrictive requirements. These requirements are consistent with the ITS threshold for containment OPERABILITY. The 31 day frequency for CIVs outside containment provides added assurance that these CIVs are in their correct position. This is considered appropriate since these valves are more susceptible to mispositioning due to their location outside containment and position verification of these valves is relatively easy. The less restrictive aspects (allowance not to perform position checks on valves inside containment if performed in the previous 92 days) of this change are addressed by DOC L11. These more restrictive requirements are consistent with the NUREG and are acceptable restrictions on operation.

M9 CTS 3.6.3.c, which provides requirements for inoperable containment isolation valves, does not address two inoperable valves in a penetration flow path, differentiate between closed system penetrations, or verify continued system isolation. The Note to ITS 3.6.3 Condition C is added as an appropriate differentiation between "closed" and "open" system penetrations. ITS 3.6.3 Required Action A.2, ITS 3.6.3 ACTION B, and Required Action C.2 are added. Required Actions A.2 and C.2 require periodic verification (31 days) that the affected penetration is isolated. This periodic verification is provided to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. However, valves in high radiation areas may be verified by administrative means. ACTION B, which requires isolation of a penetration in one hour when both containment isolation valves are inoperable, is added. This is considered more restrictive since the CTS 3.6.3.c requirement to isolate within 4 hours can be applied to one or both valves in a penetration. These more restrictive requirements are consistent with the NUREG and are acceptable restrictions on operation.

M10 The CTS requirements for the containment air locks (current ONS terminology is the "personnel hatch" and the "emergency hatch") are provided by CTS 3.6.3.a. ITS 3.6.2 Required Actions C.1 and C.2 are added to require action be initiated immediately to evaluate overall containment leakage rate per ITS LCO 3.6.1 and verify a door is closed in the affected air lock within 1 hour when the reason for an inoperable air lock is related to causes other than a door or a door interlock.

CTS 3.6.3.a is equivalent to ITS 3.6.2 Required Action C.3 since both require the hatch to be restored to OPERABLE status within 24 hours. The addition of the more restrictive requirements to require action be initiated immediately to evaluate overall containment leakage rate and to verify a door closed in the affected air lock is considered appropriate to confirm containment OPERABILITY during this degraded condition. The additional requirements are consistent with the NUREG.

M11 CTS 3.6.4 addresses the reactor building internal pressure requirements but doesn't provide an explicit requirement to verify the parameter is within limits. SR 3.6.4.1 is added to require verification of reactor building internal pressure on a Frequency of 12 hours. Periodically verifying that reactor building pressure is within limits ensures that operation remains within the limits assumed in the safety analysis. This more restrictive requirement is consistent with the NUREG and is an acceptable restriction on operation.

M12 CTS 3.6.4 requires the reactor building internal pressure to be $\leq$ 1.2 psig and $\geq$ -2.45 psig when the reactor is critical while proposed ITS LCO 3.6.4 is applicable in MODES 1, 2, 3, and 4. ITS 3.6.4 ACTION B is added to require the unit be in MODE 3 in 12 hours and in MODE 5 in 36 hours, if reactor building pressure cannot be restored within one hour. When the CTS requirement is not met, the unit is in a condition prohibited by Technical Specifications and must be shutdown in accordance with LCO 3.0. LCO 3.0 requires the affected unit be placed in at least Hot Shutdown (subcritical - approximately equivalent to ITS Mode 3) in 12 hours and Cold Shutdown within the following 24 hours. Although the shutdown requirements are similar, the ITS applicability is more restrictive which results in a more restrictive requirement to exit the applicability of the LCO, when required. The expanded applicability and actions are appropriate since maintaining containment pressure within design limits is essential to ensure initial conditions assumed in the accident analysis are maintained. The proposed change is consistent with the NUREG.

M13 CTS 4.4.4.2 requires the containment purge isolation valves to be verified closed monthly when the unit is above 250°F and 350 psig. ITS SR 3.6.3.1 requires the purge valve to be verified sealed closed every 31 days. This SR is required to be performed in MODES 1, 2, 3, and 4 (LCO 3.6.3 Applicability). MODE 4 is defined as subcritical with the average coolant temperature > 200°F and < 250°F. CTS criteria specified as 250°F is considered more limiting than the 350 psig criteria, since the saturation temperature of water at 350 psig is > 435°F. As such, the proposed ITS is slightly more restrictive in that the verification must be performed when temperature is > 200°F. This an acceptable restriction on operation. ITS SR 3.6.3.1 also requires that the valve be verified "sealed" closed. This is slightly more restrictive than the CTS requirement to verify the valve closed and is an acceptable restriction on operation. The proposed changes are consistent with the NUREG.

M14 CTS 3.3.5.a and 3.3.6.a require certain reactor building cooling and reactor building spray trains to be OPERABLE when the RCS, with fuel in the core, is in a condition with pressure equal to or greater than 350 psig or temperature equal to or greater than 250°F and subcritical. CTS 3.3.5.a(2) and 3.3.6.a(2) require the reactor to be placed in a condition outside that applicability when the systems are not restored as required. ITS 3.6.5 Required Action G.1 requires the unit to be placed in MODE 5 when the systems are not restored as required. Proposed ITS 3.6.5 requires these systems to be OPERABLE during MODES 1, 2, 3, and 4. ITS MODE 4 is defined as subcritical with the average coolant temperature > 200°F and < 250°F. CTS criteria specified as 250°F is considered more limiting than the 350 psig criteria, since the saturation temperature of water at 350 psig is > 435°F. As such, the proposed ITS is slightly more restrictive in that OPERABILITY is required when temperature is > 200°F and as result the shutdown requirements are more restrictive. The proposed change is consistent with the NUREG.

M15 CTS does not include test requirements comparable to ITS SR 3.6.5.2. ITS SR 3.6.5.2 is added to require each required reactor building cooling train fan unit be operated for $\geq$ 15 minutes. This ensures that all trains are OPERABLE and that all associated controls are functioning properly. It also ensures that blockage, fan or motor failure, or excessive vibration can be detected for corrective action. The addition of this surveillance requirement is considered more restrictive since it is an additional restriction on the operation of the unit. This addition is consistent with the NUREG and is an acceptable restriction on operation.

M16 For CTS 3.3.5 and 3.3.6, in the event of concurrent reactor building spray or reactor building cooling train inoperability, the existing requirements allow independent application of allowed repair times without restriction. When a subsequent inoperability occurs just prior to restoration of the previous inoperability and close to the expiration of the CTS-allowed time for reactor building spray or reactor building cooling, this independent application can provide an unlimited time of operation with an inoperable reactor building spray or reactor building cooling train. The maximum restoration time limit of ITS 3.6.5 Required Actions A.1 and B.1 prevent extended operation in the respective Conditions. The ITS presents this as an additional Completion Time of "14 days from discovery of failure to meet the LCO" for both ITS 3.6.5 Required Action A.1 and Required Action B.1. This is considered to be a reasonable restriction on plant operation. These changes are consistent with the NUREG.

M17 Not used.

M18 CTS 4.5.2.1.1 describes requirements for the Reactor Building Spray System, however, there is no requirement for periodic verification of
5 the Reactor Building Spray System valve lineup. ITS SR 3.6.5.1 requires valve position be verified periodically (frequency of 31 days). The

addition of this surveillance requirement is considered more restrictive since it is an additional restriction on the operation of the unit. However, the addition is considered appropriate since proper alignment is consistent with analysis assumptions. This addition is consistent with the NUREG.

M19 CTS does not include a requirement to verify automatic isolation valves actuate to their isolation position on an actual or simulated actuation signal. ITS SR 3.6.3.5 is added to require verification that each automatic isolation valve that is not locked, sealed, or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal. This SR ensures that each automatic containment isolation valve will actuate to its isolation position on a containment isolation signal. The addition of this surveillance requirement is considered more restrictive since it is an additional restriction on the operation of the unit. However, its addition is considered appropriate since it verifies these valves will operate as assumed in the safety analyses. This addition is consistent with the NUREG.

ITS Section 3.6

ID 274

Subject: Revised DOC M18 to correctly refer to ITS SR 3.6.5.1 (instead of 3.6.2.1).

M14 CTS 3.3.5.a and 3.3.6.a require certain reactor building cooling and reactor building spray trains to be OPERABLE when the RCS, with fuel in the core, is in a condition with pressure equal to or greater than 350 psig or temperature equal to or greater than 250°F and subcritical. CTS 3.3.5.a(2) and 3.3.6.a(2) require the reactor to be placed in a condition outside that applicability when the systems are not restored as required. ITS 3.6.5 Required Action G.1 requires the unit to be placed in MODE 5 when the systems are not restored as required. Proposed ITS 3.6.5 requires these systems to be OPERABLE during MODES 1, 2, 3, and 4. ITS MODE 4 is defined as subcritical with the average coolant temperature > 200°F and < 250°F. CTS criteria specified as 250°F is considered more limiting than the 350 psig criteria, since the saturation temperature of water at 350 psig is > 435°F. As such, the proposed ITS is slightly more restrictive in that OPERABILITY is required when temperature is > 200°F and as result the shutdown requirements are more restrictive. The proposed change is consistent with the NUREG.

M15 CTS does not include test requirements comparable to ITS SR 3.6.5.2. ITS SR 3.6.5.2 is added to require each required reactor building cooling train fan unit be operated for $\geq$ 15 minutes. This ensures that all trains are OPERABLE and that all associated controls are functioning properly. It also ensures that blockage, fan or motor failure, or excessive vibration can be detected for corrective action. The addition of this surveillance requirement is considered more restrictive since it is an additional restriction on the operation of the unit. This addition is consistent with the NUREG and is an acceptable restriction on operation.

M16 For CTS 3.3.5 and 3.3.6, in the event of concurrent reactor building spray or reactor building cooling train inoperability, the existing requirements allow independent application of allowed repair times without restriction. When a subsequent inoperability occurs just prior to restoration of the previous inoperability and close to the expiration of the CTS-allowed time for reactor building spray or reactor building cooling, this independent application can provide an unlimited time of operation with an inoperable reactor building spray or reactor building cooling train. The maximum restoration time limit of ITS 3.6.5 Required Actions A.1 and B.1 prevent extended operation in the respective Conditions. The ITS presents this as an additional Completion Time of "14 days from discovery of failure to meet the LCO" for both ITS 3.6.5 Required Action A.1 and Required Action B.1. This is considered to be a reasonable restriction on plant operation. These changes are consistent with the NUREG.

M17 Not used.

M18 CTS 4.5.2.1.1 describes requirements for the Reactor Building Spray System, however, there is no requirement for periodic verification of
5 the Reactor Building Spray System valve lineup. ITS SR 3.6.5.1 requires valve position be verified periodically (frequency of 31 days). The

ITS Section 3.5 3.6 3.7

ID 241

Subject: Revised JFD's related to automatic position verification to clarify that CLB does not require position verification of any valves.

purge valves when RB integrity is required is specifically prohibited by CTS 3.6.3.b.3.

NUREG 3.6.3, in Conditions A, B, and D, addresses purge valves uniquely with respect to other RB isolation valves assuming that these valves are leak tested during operation with an acceptance criteria specific to the purge valves. NUREG SR 3.6.3.6 requires purge valve leakage rate testing every 184 days and within 92 days after opening the valve. While CTS 4.4.4.1 requires leakage rate testing be performed on these valves more frequently than other containment isolation valves, there are no purge valve leakage rate acceptance criteria and no actions required when the purge valves exceed their acceptance criteria (listed in plant procedures) provided that the combined Type B and C criteria continue to be met. The leakage from these valves is included in the combined Type B and C leakage test. Therefore, a separate leakage rate testing requirement is not included in the proposed ITS.

19 NUREG SR 3.6.6.1 requires verification that manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. This requirement is modified to exclude automatic valves from this SR. The position of automatic valves in the valve flow path is irrelavent to the OPERABILITY of the Reactor Building Spray (RBS) System since each automatic valve will either be in the required position or will automatically reposition itself to the required position upon reciept of an automatic initiation signal. Consequently automatic valves are in the correct position (with respect to RBS OPERABILITY) regardless of the
5 actual valve position. Therefore, there is no reason for verifying the
5 position of these valves. Currently, there are no CTS requirements for
5 verifying the position of valves in flow paths. However, the
5 requirement to verify manual and non-automatic power operated valves is
5 added for consistency with the NUREG. The requirement to verify the
5 position of automatic valves is not included since there is no incorrect
5 position for automatic valves and there are no CTS requirements.

20 NUREG 3.6.3 RA A.1, B.1 and C.1 and SR 3.6.3.3 and 3.6.3.4 are modified to conform to plant specific terminology. RA A.1, B.1 and C.1 requirements for manual valves are modified to specifically include deactivation of non-automatic power operated valves in the closed position. SR 3.6.3.3 and SR 3.6.3.4 requirements are modified to specifically require verification that non-automatic power operated valves required to be closed during accident conditions be closed. This change ensures the associated requirements encompass the total population of isolation valves consistent with plant specific terminology. The term "manual valve" at ONS has historically referred to a valve without a power actuated operator (e.g., electric, pneumatic, hydraulic, etc.). This change is necessary to avoid confusion regarding the terminology as to what constitutes a manual valve.

ITS Section 3.7

ID 262

Subject: Revised DOC M29 to provide reference to correct SR numbers and to correctly characterize SR 3.7.8.7 as verifying that the developed capacity if each required ESV pump at the test point is greater than or equal to the required capacity.

CTS Table 4.1-2, Item 13 requires performance of an Essential Siphon Vacuum System Functional Test. ITS SR 3.7.8.5, SR 3.7.8.6, SR 3.7.8.7 and SR 3.7.8.8 provides requirements comparable to CTS Table 4.1-2, Item 13. SR 3.7.8.5 verifies that upon an actual or simulated actuation signal each ESV float valve actuates to the correct position. SR 3.7.8.6 verifies that upon an actual or simulated actuation signal each required ESV and SSW valve actuates to the correct position. SR 3.7.8.7 verifies the developed capacity of each required ESV pump at the test point is greater than or equal to the required capacity. SR 3.7.8.8 verify each required ESV pump starts within specified time period upon an actual or simulated restoration of emergency power. These SRs ensure the ESV and SSW Systems adequately support ECCW siphon header function. The ECCW siphon headers function to provide sufficient NPSH to the LPSW pumps.

The comparable ITS SR requirements are more prescriptive and therefore are more restrictive requirements upon unit operation.

M30 An explicit CTS requirement comparable to ITS SR 3.7.3.1 does not exist. ITS SR 3.7.3.1 requires verifying valve closure time is less than 25 seconds. A Note to SR 3.7.3.1 states the SR is only required to be performed in MODES 1 and 2. Although the stroke time for these valves is verified in accordance with the IST program, the inclusion of the stroke time in the ITS is a more restrictive requirement upon unit operation and is consistent with the NUREG. The inclusion of the SR Note is more restrictive since CTS does not require performance of SRs prior to entry into the applicability for the specification. The addition of the ITS SR Note is consistent with the NUREG. The inclusion of the stroke time is acceptable since it ensures equipment operation is consistent with the assumptions in the applicable safety analysis. The inclusion of the Note is acceptable since it permits testing the valves under operating conditions closer to those that would exist for an actual demand for the valves to function.

M31 Not used.

M32 With an inoperable LPSW pump, CTS 3.3.7.b ultimately requires the unit RCS temperature be reduced to < 250°F and RCS pressure < 350 psig. The condition is comparable to ITS MODE 4. ITS 3.7.7 RA B.2 requires the unit be placed in MODE 5. This is a more restrictive requirement upon unit operation and is consistent with the NUREG. In MODES 1, 2, 3, and 4, the LPSW System is a normally operating system that is required to support the OPERABILITY of the equipment serviced by the LPSW System. Therefore, the LPSW System is required to be OPERABLE in these MODES. Placing the unit in MODE 5 is necessary to exit the Applicability for the Specification.

M33 A CTS action comparable to ITS 3.7.6 Action A does not exist. With the water volume in the Condensate Storage Tank (CST), Upper Surge Tanks (UST) and condenser hotwell (HW) less than the specified limit, CTS actions are specified by CTS 3.0 which requires the unit be placed in

ITS Section 3.7

ID 268

Subject: Revised DOC R7 to indicate location of relocated requirements.

R5 CTS 3.12 requirements for the Reactor Building Polar Crane and Auxiliary Hoist are relocated to UFSAR Chapter 16. This Limiting Conditions for Operation, is not retained in the ITS because it has been reviewed against, and determined not to satisfy, the selection criteria for Technical Specifications provided in 10 CFR 50.36. The selection criteria were established to ensure that the Technical Specifications are reserved for those conditions or limitations on plant operation considered necessary to limit the possibility of an abnormal situation or event that could result in an immediate threat to the health and safety of the public. The rationale for relocation of each of these Specifications is provided in the report, "Application of Selection Criteria to the Oconee Nuclear Station Unit 1, 2, and 3 Technical Specifications."

R6 Not used.

R7 CTS 4.16 includes testing requirements for Radioactive Material Sources. CTS does not include associated LCO requirements. This surveillance
5 requirement is relocated to UFSAR Chapter 16 since the tested equipment
5 has been reviewed against, and determined not to satisfy, the selection criteria for Technical Specifications provided in 10 CFR 50.36. The selection criteria were established to ensure that the Technical Specifications are reserved for those conditions or limitations on plant operation considered necessary to limit the possibility of an abnormal situation or event that could result in an immediate threat to the health and safety of the public. The rationale for relocation of each of these Specifications is provided in the report, "Application of Selection Criteria to the Oconee Nuclear Station Unit 1, 2, and 3 Technical Specifications."

ITS Section 3.7

ID 272

Subject: Revised DOCs LA2 and LA3 to indicate that changes to the IST Program are controlled by 10 CFR 50.55a consistent with other similar DOCs and Attachment 7 to the ITS Cover Letter.

TECHNICAL CHANGES - REMOVAL OF DETAILS

LA1 Not used.

LA2 CTS Table 4.1-2, Note 4 includes requirements associated with the ASME Boiler and Pressure Vessel (B&PV) Code Section XI requirements for relief valve testing frequency. This information is relocated to the Inservice Testing (IST) Program. This information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of compliance. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. Changes to the Inservice Testing Program are controlled by 10 CFR 50.55a. Additionally, ITS 5.5.9 provide requirements regarding this IST program. This change is consistent with the NUREG.

LA3 CTS Table 4.1-2, Item 5 includes requirements for testing the movement capability of the TSVs. This information is relocated to the Inservice Testing (IST) Program. This information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of compliance. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. Changes to the Inservice Testing Program are controlled by 10 CFR 50.55a. This change is consistent with the NUREG.

LA4 CTS 4.9.1, 4.9.3 and 4.9.4 include details of the methodology for testing the EFW system. This information is relocated to the UFSAR Chapter 16. This information provides details of testing which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of testing. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. Changes to UFSAR Chapter 16 are controlled by 10 CFR 50.59. Additionally, ITS 5.5.9 provide requirements regarding this IST program. This change is consistent with the NUREG.

LA5 CTS 3.4.1.a provides details regarding the steam supply requirements for the turbine driven EFW pump. This information is relocated to the ITS Bases. This information provides details of system operation which are

ITS Section 3.5 3.6 3.7

ID 241

Subject: Revised JFD's related to automatic position verification to clarify that CLB does not require position verification of any valves.

ITS ACTION C is added to address control room air temperature not within limit. This is consistent with the NUREG format to provide appropriate Required Actions that correspond to the surveillances used to verify system OPERABILITY. The lack of an appropriate ACTION for this surveillance could, in the event this surveillance was not met, result in an unnecessary entry into LCO 3.0.3 and an inappropriate plant shutdown, because an ACTION is not provided corresponding to the manner in which the LCO is not met. The proposed ACTION allows 7 days to restore the control room air temperature to within its limit. The ACTION also contains an exception to LCO 3.0.4. The time allowed to restore the temperature and the exception to LCO 3.0.4 are reasonable considering (a) the remaining CRACS train available to perform the cooling function in an emergency, (b) the small expected deviation above the limit before discovery by performance of the temperature verification of ITS SR 3.7.16.1 every 12 hours, and (c) the marginal impact that a control room temperature slightly above the limit would have on the ability of CRACS to perform its emergency cooling function. Therefore, the proposed ACTION is acceptable.

ITS ACTION and SR are similar to that approved for other plants (Vogtle).

69 NUREG LCO 3.7.16 is modified to include storage of new fuel as well as spent fuel. At Oconee, new fuel as well as spent fuel may be stored in the spent fuel storage racks and is subject to the same restrictions regarding fuel enrichment versus burnup as spent fuel. The title for Specification 3.7.16 is changed from "Spent Fuel Assembly Storage" to "Fuel Assembly Storage" since the scope of this specification includes both new and spent fuel assemblies when the fuel assemblies are stored in the spent fuel storage pool.

70 NUREG SR 3.7.5.1 requires verification that manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. This requirement is modified to exclude automatic valves from this SR. The position of automatic valves in the valve flow path is irrelavent to the OPERABILITY of the Emergency Feedwater (EFW) System since each automatic valve will either be in the required position or will automatically reposition itself to the required position upon reciept of an automatic initiation signal. Consequently automatic valves are in the correct position (with respect to EFW OPERABILITY) regardless of the actual
5 valve position. Therefore, there is no reason for verifying the
5 position of these valves. Currently, there are no CTS requirements for
5 verifying the position of valves in flow paths. However, the
5 requirement to verify manual and non-automatic power operated valves is
5 added for consistency with the NUREG. The requirement to verify the
5 position of automatic valves is not included since there is no incorrect
5 position for automatic valves and there are no CTS requirements.

71 NUREG SR 3.7.8.1 requires verification that manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. This requirement is modified to exclude automatic valves from this SR. The position of automatic valves in the valve flow path is irrelavent to the OPERABILITY of the Low Pressure Service Water (LPSW) System since each automatic valve will either be in the required position or will automatically reposition itself to the required position upon receipt of an automatic initiation signal. Consequently automatic valves are in the correct position (with respect to LPSW OPERABILITY) regardless of
5 the actual valve position. Therefore, there is no reason for verifying
5 the position of these valves. Currently, there are no CTS requirements
5 for verifying the position of valves in flow paths. However, the
5 requirement to verify manual and non-automatic power operated valves is
5 added for consistency with the NUREG. The requirement to verify the
5 position of automatic valves is not included since there is no incorrect
5 position for automatic valves and there are no CTS requirements.

ITS Section 3.8

ID 246

Subject: Provide NUREG 3.8.1 markup Insert B 3.8-1A page 3.8-17 which was inadvertently left out of Supplement 4.

CTS

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.16	----------NOTE---------- Only applicable when complying with Required Action C.2.2.4. ----------	DOC A42
	Verify one KHU provides an alternate manual AC power source capability by manual or automatic KHU start with manual synchronize, or breaker closure, to energize its non-required emergency power path.	As specified by Required Action C.2.2.4

Supp 5

ITS Section 3.8

ID 257

Subject: Revised LCO 3.8.3 part a and LCO Note 2 & 3.

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 DC Sources – Operating

LCO 3.8.3 DC Sources shall be OPERABLE as follows:

a. Three of four 125 VDC Vital I&C power sources for each unit as follows,

Unit 1 - 1CA, 1CB, 2CA, 2CB

Unit 2 - 2CA, 2CB, 3CA, 3CB

Unit 3 - 3CA, 3CB, 1CA, 1CB;

and each aligned to at least one panelboard provided that a power source is not the only source for two or more of the Unit's panelboards.

b. Two additional 125 VDC Vital I&C power sources when any other Unit is in MODES 1, 2, 3, or 4;

c. One additional 125 VDC Vital I&C power source when no other Unit is in MODES 1, 2, 3, or 4;

d. Two 230 kV Switchyard 125 VDC power sources.

----------NOTES----------

1. For Units 2 and 3, a 125 VDC Vital I&C power source shall not be the only source for panelboards 1DIC and 1DID required by LCO 3.8.8.

2. Each additional 125 VDC Vital I&C source required by LCO 3.8.3 part b or part c shall be connected to at least one panelboard associated with the unit where the source is physically located.

3. The additional 125 VDC Vital I&C power source required by LCO 3.8.3 part c shall not be a 125 VDC Vital I&C power source that is available to meet the three of four requirement of LCO 3.8.3 part a.

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

BASES

BACKGROUND (continued)

The 125 VDC Vital I&C power and 230 kV 125 VDC power distribution systems are described in more detail in the Bases for LCO 3.8.8, "Distribution System – Operating," and for LCO 3.8.9, "Distribution Systems – Shutdown."

APPLICABLE SAFETY ANALYSES

The initial conditions of accident and transient analyses in the UFSAR, Chapter 6 (Ref. 1) and Chapter 15 (Ref. 2), assume that Engineered Safeguards (ES) systems are OPERABLE. The 125 VDC Vital I&C electrical power system provides normal and emergency DC electrical power for the emergency auxiliaries, and control and switching during all MODES of operation.

The 230 kV switchyard 125 VDC Power System provides control power for circuit breaker operation in the 230 kV switchyard as well as DC power for degraded grid voltage protection circuits during all MODES of operation.

The OPERABILITY of the DC sources is consistent with the initial assumptions of the accident analyses and is based upon meeting the design basis of the unit. This includes maintaining the DC sources OPERABLE during accident conditions in the event of:

a. An assumed loss of all offsite AC power or all onsite AC power; and

b. A worst-case single failure.

The DC sources satisfy Criterion 3 of 10 CFR 50.36 (Ref. 3).

5 LCO

Each required 125 VDC electrical source consisting of one battery, associated battery charger, distribution center and the corresponding control equipment and interconnecting

5 cabling supplying power to the associated panelboards is required to be OPERABLE to ensure the availability of the required power to shut down the reactor and maintain it in a safe condition after an anticipated transient or an accident.

(continued)

BASES

LCO (continued)

For operation of any Oconee unit, three of four 125 VDC Vital I&C Sources capable of supplying the unit's DC distribution system shall be OPERABLE as follows:

Unit 1: 1CA, 1CB, 2CA, 2CB
Unit 2: 2CA, 2CB, 3CA, 3CB
Unit 3: 3CA, 3CB, 1CA, 1CB

and aligned to at least one panelboard provided that a power source is not the only source for two or more of the Unit's panelboards. The three of four requirement ensures that a single failure will not result in a loss of power to more than one 125 VDC Vital I&C panelboard. This requirement ensures supported safety functions are not vulnerable to a single failure.

When any other unit is in MODES 1, 2, 3, or 4, two additional 125 VDC Vital I&C Sources are required to be OPERABLE as modified by LCO Note 2. When no other Unit is in MODES 1, 2, 3, or 4, one additional 125 VDC Vital I&C power source is required to be OPERABLE as modified by LCO Notes 2 and 3. These additional requirements ensure sufficient capacity and voltage for supported DC loads assuming a single failure.

The requirement that two 230 kV 125 VDC sources be OPERABLE ensures that supported safety functions are not vulnerable to a single failure.

The LCO is modified by three Notes. Note 1, which applies to Units 2 and 3 only, indicates that no single 125 VDC Vital I&C source shall be the only source for panelboards 1DIC and 1DID. This is necessary since vital I&C panelboards 1DIC and 1DID supply power for SK and SL breaker control, protective relaying for both standby buses, breaker control for both standby breakers for the three Oconee units, and retransfer to startup source logic circuits for the three Oconee units. The requirement that no single 125 VDC source be the only source of power for panelboards 1DIC and 1DID ensures than a single failure will not result in a loss of power to both panelboards. This requirement ensures supported safety functions are not vulnerable to a single failure.

(continued)

BASES

LCO (continued)

Note 2 indicates that each additional 125 VDC Vital I&C source required by part b or part c of the LCO shall be connected to at least one panelboard associated with the unit where the source is physically located. For example, when applying the LCO requirements to Unit 1, an additional source from Unit 2 must be connected to at least one Unit 2 panelboard and an additional source from Unit 3 must be connected to at least one Unit 3 panelboard. If the additional sources are from Unit 3, each additional source need only be connected to at least one Unit 3 panelboard. Note 3 specifies that the additional 125 VDC Vital I&C power source required by LCO 3.8.3 part c shall not be a power source that is available to meet the three of four requirement of LCO 3.8.3 part a. This ensures that there is one source physically located on each unit not in MODES 1, 2, 3, or 4. For example, when applying the LCO requirements to Unit 1, the additional source cannot be a Unit 1 or Unit 2 power source since these are available to meet the three of four requirement. Therefore, a Unit 3 power source must be OPERABLE. Note 2 and 3 requirements are necessary to assure assumptions in the DC capacity and voltage drop analyses for the operating unit are valid.

APPLICABILITY

The DC electrical power sources are required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure safe unit operation and to ensure that:

a. Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of transients and accidents; and

b. Adequate core cooling is provided, and containment integrity and other vital functions are maintained in the event of a postulated accident.

The DC electrical power requirements for MODES 5 and 6 are addressed in the Bases for LCO 3.8.4, "DC Sources – Shutdown."

(continued)

(A1) (except as marked) Specification 3.8.3

3.8 ELECTRICAL POWER SYSTEMS

~~3.7~~ ~~3.7.8~~ 3.8.3

Supp 4

3.8.3 ~~3.7.8~~ DC Sources - Operating

LCO 3.8.3 ~~TS 3.7.8~~ DC Sources shall be OPERABLE as follows:

for each unit as follows:
Unit 1 - 1CA, 1CB, 2CA, 2CB
Unit 2 - 2CA, 2CB, 3CA, 3CB
Unit 3 - 3CA, 3CB, 1CA, 1CB;

a 1. Three of four 125 VDC Vital I&C power sources

when any other Unit is in MODES 1, 2, 3, or 4

b 2. ~~Five of six~~ Two additional 125 VDC Vital I&C power sources for operation of two or three Units,

c 3. ~~Four of six~~ One additional 125 VDC Vital I&C power sources for operation of one Unit,

when no other Unit is in MODES 1, 2, 3 or 4

Supp 5

d 4. ~~No single 125 VDC Vital I&C~~ power source shall be the only source supplying power to two or more 125 VDC Vital I&C panelboards,

and aligned to at least one panelboard provided that a

is not

for

of the Unit's

1 5. For Units 2 or 3, ~~no single~~ a 125 VDC Vital I&C power source shall be the only source ~~supplying power to 125 VDC Vital I&C~~ panelboards 1DIC and 1DID, ~~and~~

Not

for

d 6. Two 230 kV switchyard 125 VDC power sources

required by LCO 3.8.8

at least one panelboard associated with the unit where the source is physically located

NOTES

2 1. The additional 125 VDC Vital I&C power sources required by LCO ~~3.7.8~~ 3.8.3 part 2 or part 3 shall ~~are not required to~~ be connected to the Unit distribution system.

b c

3 2. The additional 125 VDC Vital I&C power sources required by LCO ~~3.7.8~~ 3.8.3 part c shall ~~include one~~ note a 125 VDC Vital I&C power source belonging to each unit not above COLD SHUTDOWN.

that is available to meet the three hour requirement of LCO 3.8.2 part a

Supp 5

Applic

APPLICABILITY: Above COLD SHUTDOWN — MODES 1, 2, 3, and 4.

ACTIONS

NOTE
The Completion Times for Required Actions A through D are reduced when in Condition L of LCO 3.8.1

A43

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required 125 VDC Vital I&C power source inoperable to perform equalization charge after performance test or service test.	A.1 Restore required 125 VDC Vital I&C power source to OPERABLE status.	72 hours
B. (A) One required 125 VDC Vital I&C power source inoperable for reasons other than Condition A.	B.1 (A) Restore required ~~125 VDC Vital~~ I&C power source to OPERABLE status.	24 hours

(continued)

Add RA A.1 Note → A49

INSERT 3.8-26A

CTS

a. Three of four 125 VDC Vital I&C power sources for each unit as follows, 3.7.8.1

Unit 1 - 1CA, 1CB, 2CA, 2CB

Unit 2 - 2CA, 2CB, 3CA, 3CB

Unit 3 - 3CA, 3CB, 1CA, 1CB;

and aligned to at least one panelboard provided that a power source is not the only source for two or more of the Unit's panelboards. 3.7.8.4

b. Two additional 125 VDC Vital I&C power sources when any other Unit is in MODES 1, 2, 3, or 4; 3.7.8.2

c. One additional 125 VDC Vital I&C power source when no other Unit is in MODES 1, 2, 3, or 4; 3.7.8.3

d. Two 230 kV Switchyard 125 VDC power sources. 3.7.8.6

----------NOTE----------

1. For Units 2 and 3, a 125 VDC Vital I&C power source shall not be the only source for panelboards 1DIC and 1DID required by LCO 3.8.8. 3.7.8.5

2. The additional 125 VDC Vital I&C sources required by LCO 3.8.3 part b, or part c shall be connected to at least one panelboard associated with the unit where the source is physically located. TS Note 1

3. The additional 125 VDC Vital I&C power source required by when LCO 3.8.3 part c applies shall not be a 125 VDC Vital I&C power source that is available to meet the three of four requirement of LCO 3.8.3 part a. TS Note 2

BASES

APPLICABLE SAFETY ANALYSES (continued)

provides normal and emergency DC electrical power for the DGs, emergency auxiliaries, and control and switching during all MODES of operation.

The OPERABILITY of the DC sources is consistent with the initial assumptions of the accident analyses and is based upon meeting the design basis of the unit. This includes maintaining the DC sources OPERABLE during accident conditions in the event of:

a. An assumed loss of all offsite AC power or all onsite AC power; and

b. A worst-case single failure.

The DC sources satisfy Criterion 3 of the NRC Policy Statement.

LCO

The DC electrical power subsystems, each subsystem consisting of two batteries, battery charger for each battery, and the corresponding control equipment and interconnecting cabling supplying power to the associated bus within the train are required to be OPERABLE to ensure the availability of the required power to shut down the reactor and maintain it in a safe condition after an anticipated operational occurrence (AOO) or a postulated DBA. Loss of any train DC electrical power subsystem does not prevent the minimum safety function from being performed (Ref. 4).

An OPERABLE DC electrical power subsystem requires all required batteries and respective chargers to be operating and connected to the associated DC bus(es).

APPLICABILITY

The DC electrical power sources are required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure safe unit operation and to ensure that:

a. Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of AOOs or abnormal transients; and

(continued)

INSERT B3.8-52A

The 230 kV Switchyard 125 VDC Power System provides control power for circuit breaker operation in the 230 kV switchyard as well as DC power for degraded grid voltage protection circuits during all MODES of operation.

INSERT B3.8-52B

For operation of any Oconee unit, three of four 125 VDC Vital I&C Sources capable of supplying the unit's DC distribution system shall be OPERABLE as follows:

Unit 1: 1CA, 1CB, 2CA, 2CB
Unit 2: 2CA, 2CB, 3CA, 3CB
Unit 3: 3CA, 3CB, 1CA, 1CB

5 and aligned to at least one panelboard provided that a power source is
5 not the only source for two or more of the Unit's panelboards. The three of four requirement ensures that a single failure will not result in a loss of power to more than one 125 VDC Vital I&C panelboard. This requirement ensures supported safety functions are not vulnerable to a single failure.

When any other Unit is in MODES 1, 2, 3, or 4, two additional 125 VDC
5 Vital I&C Sources are required to be OPERABLE. When no other Unit is in MODES 1, 2, 3, or 4, one additional 125 VDC Vital I&C power source is
5 required to be OPERABLE. These additional requirements ensure sufficient capacity and voltage for supported DC loads assuming a single failure.

The requirement that two 230 kV 125 VDC sources be OPERABLE ensures that supported safety functions are not vulnerable to a single failure.

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INSERT B3.8-52C

The LCO is modified by three Notes. Note 1, which applies to Units 2 and 3 only, indicates that no single 125 VDC Vital I&C source shall be the only source for panelboards 1DIC and 1DID. This is necessary since vital I&C panelboards 1DIC and 1DID supply power for SK and SL breaker control, protective relaying for both standby buses, breaker control for both standby breakers for the three Oconee units, and retransfer to startup source logic circuits for the three Oconee units. The requirement that no single 125 VDC source be the only source of power for panelboards 1DIC and 1DID ensures that a single failure will not result in a loss of power to both panelboards. This requirement ensures supported safety functions are not vulnerable to a single failure.

Note 2 indicates that the additional 125 VDC Vital I&C sources required by part b or part c of the LCO shall be connected to at least one panelboard associated with the unit where the source is physically located. For example, when applying the LCO requirements to Unit 1, an additional source from Unit 2 must be connected to at least one Unit 2 panelboard and an additional source from Unit 3 must be connected to at least one Unit 3 panelboard. If the additional sources are from Unit 3, each additional source need only be connected to at least one Unit 3 panelboard. Note 3 specifies that the additional 125 VDC Vital I&C power source required by LCO 3.8.3 part c shall not be a power source that is available to meet the three of four requirment of LCO 3.8.3 part a. This ensures that there is one source physically located on each unit not in MODES 1, 2, 3, or 4. For example, when applying the LCO requirements to Unit 1, the additional source cannot be a Unit 1 or Unit 2 power source since these are available to meet the three of four requirement. Therefore, a Unit 3 power source must be OPERABLE. Note 2 and 3 requirements are necessary to assure assumptions in the DC capacity and voltage drop analyses for the operating unit are valid.

ITS Section 3.9

ID 275

Subject: Revised SR Table for 3.9.4 to replace single line at end of table with double line consistent with ITS format for table ending.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.4	Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify one DHR loop is in operation.	12 hours

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ITS Section 3.10

ID 255

Subject: Revised NUREG Markup for ITS 3.10.2 to include cross-reference to CTS specifications.

CTS

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. SSF Power System inoperable.	D.1 Restore SSF Power System to OPERABLE status.	7 days 3.18.5.b
E. SSF Instrumentation inoperable.	E.1 Restore SSF Instrumentation to OPERABLE status.	7 days 3.18.6.b
F. Required Action and associated Completion Time of Condition A, B, C, D, or E not met when SSF Systems or Instrumentation are inoperable due to maintenance.	F.1 Restore to OPERABLE status.	-----NOTE----- Not to exceed 45 days cumulative per calendar year 3.18.7 ---------- 45 days from discovery of initial inoperability 3.18.7
G. Required Action and associated Completion Time of Condition F not met. OR Required Action and associated Completion Time of Condition A, B, C, D, or E not met for reasons other than Condition F.	G.1 Be in MODE 3. AND G.2 Be in MODE 4.	12 hours 3.18.2.b, 3.18.3.b, 3.18.4.b, 3.18.5.b 84 hours 3.18.6.b

ITS Section 3.10

ID 265

Subject: Revised SR 3.10.1.14 to require verifying OPERABILITY of SSF valves in accordance with the IST Program consistent with current licensing basis.

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE		FREQUENCY
	SR 3.10.1.11	Verify for required SSF battery that the cell to cell and terminal connections are clean, tight and coated with anti-corrosion material.	12 months
	SR 3.10.1.12	Verify battery capacity of required battery is adequate to supply, and maintain in OPERABLE status, the required maximum loads for the design duty cycle when subjected to a battery service test.	12 months
	SR 3.10.1.13	Perform CHANNEL CALIBRATION for each required SSF instrument channel.	18 months
5 5 5	SR 3.10.1.14	Verify OPERABILITY OF SSF valves in accordance with the Inservice Testing Program.	In accordance with the Inservice Testing Program
	SR 3.10.1.15	----------NOTES---------- Not applicable to the SSF submersible pump. ---------- Verify the developed head of each required SSF pump at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
	SR 3.10.1.16	Verify the developed head of the SSF submersible pump at the flow test point is greater than or equal to the required developed head.	2 years

BASES

SURVEILLANCE REQUIREMENTS

SR 3.10.1.12 (continued)

cycle requirements. The design basis discharge time for the SSF battery is one hour.

The Surveillance Frequency for this test is 12 months. This Frequency is considered acceptable based on operating experience.

SR 3.10.1.13

CHANNEL CALIBRATION is a complete check of the instrument channel, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drift to ensure that the instrument channel remains operational between successive tests. CHANNEL CALIBRATION shall find that measurement errors and bistable setpoint errors are within the assumptions of the setpoint analysis. CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the setpoint analysis. This Frequency is justified by the assumption of an 18 month calibration interval to determine the magnitude of equipment drift in the setpoint analysis.

SR 3.10.1.14

5 Inservice Testing of the SSF valves demonstrates that the valves are mechanically OPERABLE and will operate when required. These valves are required to operate to ensure the required flow path.

The specified Frequency is in accordance with the IST Program requirements. Operating experience has shown that these components usually pass the SR when performed at the IST Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.10.1.15

This SR requires the SSF pumps to be tested in accordance with the IST Program. The IST verifies the required flow

(continued)

3.18.2 through 3.18.7. This provision is captured by the ITS 3.10.1 ACTIONS Note which states LCO 3.0.4 is not applicable. LCO 3.0.4 does not allow entry into a MODE or other specified condition in the Applicability when an LCO is not met. Therefore, the ACTIONS note, which takes exception to the LCO 3.0.4 requirement, captures the CTS provision. This change represents no actual change in requirements, only a change in presentation of requirements.

A5 CTS 4.20.1.b, CTS 4.20.2.b, CTS 4.20.3.a.5, CTS 4.20.3.b.5 states that when equipment is inoperable due to the performance of a surveillance test, then actions shall be taken as required by Specification 3.18. In the ITS the SRs must be met for the LCO to be considered met as required by ITS SR 3.0.1. Therefore, statements of this type are not necessary and are deleted. This change represents no actual change in requirements, only a change in presentation of requirements.

A6 CTS 4.20.1.a requires Inservice Testing (IST) of SSF ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code as required by
5 10 CFR 50.55a(g)(4). ITS SR 3.10.1.14 requires verifying OPERBILITY of
5 SSF valves in accordance with the IST Program. ITS SR 3.10.1.15 requires verification that the developed head of each SSF pump at the flow test point be greater than or equal to the required developed head at a Frequency in accordance with the IST Program. The inservice testing required by CTS 4.20.1.a (and 10 CFR 50.55a(g)(4) includes requirements to verify that each SSF pump's developed head at the flow test point is greater than or equal to the required developed head and
5 to verify that each SSF valve is OPERABLE. This portion is retained as ITS SRs 3.10.1.14 and 15. Therefore, this portion of the requirement is equivalent and the addition of these explicit requirements are an administrative change. The general requirement for testing of ASME Code Class 1, 2, and 3 pumps and valves in accordance with Section 11 of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a(g)(4) is not retained in ITS since it duplicates applicable regulations. Therefore, elimination of the CTS requirement is administrative and is consistent with comparable NUREG requirements.

A7 CTS 4.20.3.a.2 requires the SSF DG to be operated for at least 60 minutes with a load greater than or equal to 3000 kw. The comparable ITS requirement (SR 3.10.1.9) specifically requires the DG be synchronized and loaded and operated. Since the DG must be synchronized and loaded regardless of whether currently specified, the proposed addition of the more prescriptive surveillance is considered an administrative change and is consistent with comparable NUREG SR 3.8.1.3 requirements.

A8 CTS 4.20.3.a.3 requires the diesel fuel oil from the day tank and underground tank be sampled and analyzed for viscosity, water and sediment in accordance with applicable ASTM Specifications for Diesel

SURVEILLANCE REQUIREMENTS (continued) CTS

SURVEILLANCE		FREQUENCY
SR 3.10.1.11	Verify for required SSF battery that the cell to cell and terminal connections are clean, tight and coated with anti-corrosion material.	12 months 4.20.3.b.3.b
SR 3.10.1.12	Verify battery capacity of required battery is adequate to supply, and maintain in OPERABLE status, the required maximum loads for the design duty cycle when subjected to a battery service test.	12 months 4.20.3.b.4
SR 3.10.1.13	Perform CHANNEL CALIBRATION for each required SSF instrument channel.	18 months T4.20-1 Items 1,3,4+6 Col "Calibrate"
5 5 5 SR 3.10.1.14	Verify OPERABILITY OF SSF valves in accordance with the Inservice Testing Program.	In accordance with the Inservice Testing Program Doc A6
SR 3.10.1.15	----------NOTES---------- Not applicable to the SSF submersible pump. ----------	Doc A6
	Verify the developed head of each required SSF pump at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.10.1.16	Verify the developed head of the SSF submersible pump at the flow test point is greater than or equal to the required developed head.	2 years 4.20.1.c

ITS Section 5.0

ID 256

Subject: Provide ITS Pages 5.0-32 and 5.0-34 which were inadvertently left out of Supplement 4.

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

(1) DPC-NE-1002A, Reload Design Methodology II, October 1985;

(2) NFS-1001A, Reload Design Methodology, April 1984;

(3) DPC-NE-2003A, Oconee Nuclear Station Core Thermal Hydraulic Methodology Using VIPRE-01, July 1989;

(4) DPC-NE-1004A, Nuclear Design Methodology Using CASMO-3/SIMULATE-3P, November 1992;

(5) BAW-10162P-A, TACO3 Fuel Pin Thermal Analysis Computer Code, B&W Fuel Company, November, 1989;

(6) BAW-10183P, Fuel Rod Gas Pressure Criterion, B&W Fuel Company, as approved by SER dated February, 1994;

(7) DPC-NE-3000P-A, Thermal Hydraulic Transient Analysis Methodology, August, 1994;

(8) DPC-NE-2005P-A, Thermal Hydraulic Statistical Core Design Methodology, February, 1995 and

(9) DPC-NE-3005-P, UFSAR Chapter 15 Transient Analysis Methodology, DPC, JUL97.

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6 Reporting Requirements

5.6.8 Steam Generator Tube Inspection Report (continued)

c. Results of steam generator tube inspections which fall into Category C-3 and require notification to the NRC shall be reported prior to resumption of plant operation. The written report shall provide the results of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

d. The designation of affected and unaffected areas will be reported to the NRC when they are determined.

ITS Section 5.0

ID 270

Subject: Revised DOC L4 and corresponding NSHC to correct value for weight percent of containment post-accident air mass per 24 hours (changed from 0.10 to 0.125).

TECHNICAL CHANGES - LESS RESTRICTIVE

L1 CTS 3.6.7.1.c requires submittal of a report for abnormal degradation of containment tendons within 15 days. ITS 5.6.7 requires a Tendon Surveillance Report within 30 days. The additional time to submit the report is a less restrictive requirement upon plant operation and is consistent with the NUREG. This change is acceptable, however, because there is no requirement for the NRC to approve these reports. Completion and submittal of the reports is clearly not necessary to ensure safe operation of the unit during the additional time intervals provided by this change. This change is consistent with the NUREG.

L2 CTS Specifications 6.6.1.3 (Personnel Exposure and Monitoring Report) and 6.6.1.5 (Annual Radiological Environmental Operating Report), which require that these reports be submitted by March 1 and May 1 of each year, respectively, are revised in ITS Specifications 5.6.1 and 5.6.2 to permit these reports to be submitted by April 30 and May 15 of each year, respectively. This is a relaxation of requirements, which is less restrictive. This change is acceptable, however, because these reports cover the previous calendar year, and there is no requirement for the NRC to approve these reports. Completion and submittal of the reports is clearly not necessary to ensure safe operation of the unit during the additional time intervals provided by these changes. This change is consistent with the NUREG.

L3 CTS Specification 6.1.1.4, which requires that the Operations Superintendent hold, or have held, an SRO license, and, that the Shift Operations Manager hold an SRO license, is revised in ITS Specification 5.2.2.f to require that either the Operations Superintendent" or the Shift Operations Manager hold an SRO license. The Shift Operations Manager is an off-shift manager reporting to the Operations Superintendent who can be delegated the Operations Superintendent duties. This is a relaxation of requirements, which is less restrictive. 10 CFR 55 requires that an individual that directs the licensed activities of licensed operators hold an SRO license. This change is acceptable, however, since the Technical Specification requirements will continue to assure that an individual with direct control of the operations shift crews holds an SRO license. This change is consistent with the NUREG.

L4 CTS 4.4.1.2.3 requires leakage from penetrations and isolation valves
5 (Type B and C tests) to be $\leq$ 0.125 weight percent of containment post-accident air mass per 24 hours (equivalent to 0.50 La). This limit is applicable whenever containment integrity is required. ITS 5.5.2, Containment Leakage Rate Testing Program, specifies the acceptance criterion for Type B and C testing as $\leq$ 0.60 La during the first unit

LESS RESTRICTIVE CHANGE L4

The Oconee Nuclear Station is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1430, "Standard Technical Specifications, Babcock and Wilcox Plants." The proposed changes involve making the current Technical Specifications (CTS) less restrictive. Below is the description of this less restrictive change and the No Significant Hazards Consideration for conversion to NUREG-1430.

5 CTS 4.4.1.2.3 requires leakage from penetrations and isolation valves (Type B and C tests) to be $\leq$ 0.125 weight percent of containment post-accident air mass per 24 hours (equivalent to 0.50 La). This limit is applicable whenever containment integrity is required. ITS 5.5.2, Containment Leakage Rate Testing Program, specifies the acceptance criterion for Type B and C testing as $\leq$ 0.60 La during the first unit startup following testing in accordance with this program. At other times the acceptance criterion for Type B and C testing is $\leq$ 1.0 La. The increase in the acceptance criterion from 0.50 La to 0.60 La during the first unit startup following leak rate testing and from 0.50 La to 1.0 La at other times are less restrictive requirements upon unit operation and are consistent with the NUREG. Containment OPERABILITY is maintained by limiting leakage to $\leq$ 1.0 L_a, except prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test. At this time, the combined Type B and C leakage must be $<$ 0.6 L_a, and the overall Type A leakage must be $<$ 0.75 L_a. Compliance with these requirements ensure a containment configuration, that is structurally sound and that will limit leakage to those leakage rates assumed in the safety analysis.

In accordance with the criteria set forth in 10 CFR 50.92, Duke Energy has evaluated this proposed Technical Specification change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion.

1. **Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?**

   The proposed change does not involve any physical alteration of plant systems, structures or components, changes in parameters governing normal plant operation, or methods of operation. The change modifies the acceptance criteria for Type B and C leakage rate tests. The probability of an accident occurring is not dependent upon the leakage rate from the containment. The allowable leakage rates are still $\leq$ the leakage rates assumed in the safety analysis. Therefore, this change does not involve an

ENCLOSURE 4

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.2.1	----------NOTES---------- The predicted reactivity values may be adjusted (normalized) to correspond to the measured core reactivity prior to exceeding a fuel burnup of 60 effective full power days (EFPD) after each fuel loading. ---------- Verify measured core reactivity balance is within ± 1% Δk/k of predicted values.	Prior to entering MODE 1 after each fuel loading AND -----NOTE------ Only required after 60 EFPD ---------- 31 EFPD thereafter

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. Regulating rod groups positioned in restricted or unacceptable region.	B.1	--------NOTE-------- Not applicable to regulating rod groups positioned in the restricted region. ----------	
		Initiate boration to restore SDM to within the limits specified in the COLR.	15 minutes
	AND		
	B.2.1	Restore regulating rod groups to within acceptable region.	2 hours
	OR		
	B.2.2	Reduce THERMAL POWER to less than or equal to THERMAL POWER allowed by regulating rod group position limits.	2 hours
C. Required Action and associated Completion Time of Condition A or B not met.	C.1	Be in MODE 3.	12 hours

Table 3.3.1-1 (page 1 of 1)
Reactor Protective System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	CONDITIONS REFERENCED FROM REQUIRED ACTION B.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Nuclear Overpower –				
a. High Setpoint	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.4 SR 3.3.1.5	≤ 105.5% RTP
b. Low Setpoint	2[b],3[b] 4[b],5[b]	D	SR 3.3.1.1 SR 3.3.1.5	≤ 5% RTP
2. RCS High Outlet Temperature	1,2	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 618°F
3. RCS High Pressure	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 2355 psig
4. RCS Low Pressure	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≥ 1800 psig
5. RCS Variable Low Pressure	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	As specified in the COLR
6. Reactor Building High Pressure	1,2,3[c]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 4 psig
7. Reactor Coolant Pump to Power	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	>2% RTP with ≤ 2 pumps operating
8. Nuclear Overpower Flux/Flow Imbalance	1,2[a]	C	SR 3.3.1.1 SR 3.3.1.3 SR 3.3.1.4 SR 3.3.1.5	As specified in the COLR
9. Main Turbine Trip (Hydraulic Fluid Pressure)	≥ 30% RTP	E	SR 3.3.1.4 SR 3.3.1.5	≥ 800 psig
10. Loss of Main Feedwater Pumps (Hydraulic Oil Pressure)	≥ 2% RTP	F	SR 3.3.1.4 SR 3.3.1.5	≥ 75 psig
11. Shutdown Bypass RCS High Pressure	2[b],3[b] 4[b],5[b]	D	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.5	≤ 1720 psig

(a) When not in shutdown bypass operation.

(b) During shutdown bypass operation with any CRD trip breakers in the closed position and the CRD System capable of rod withdrawal.

(c) With any CRD trip breaker in the closed position and the CRD System capable of rod withdrawal.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.11.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.11.2	----------NOTE---------- Only applicable when modifications are implemented that allow online testing. ---------- Perform CHANNEL FUNCTIONAL TEST.	31 days
SR 3.3.11.3	Perform CHANNEL CALIBRATION.	18 months

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 DC Sources – Operating

LCO 3.8.3 DC Sources shall be OPERABLE as follows:

a. Three of four 125 VDC Vital I&C power sources for each unit as follows,

Unit 1 - 1CA, 1CB, 2CA, 2CB

Unit 2 - 2CA, 2CB, 3CA, 3CB

Unit 3 - 3CA, 3CB, 1CA, 1CB;

and each aligned to at least one panelboard provided that a power source is not the only source for two or more of the Unit's panelboards.

b. Two additional 125 VDC Vital I&C power sources when any other Unit is in MODES 1, 2, 3, or 4;

c. One additional 125 VDC Vital I&C power source when no other Unit is in MODES 1, 2, 3, or 4;

d. Two 230 kV Switchyard 125 VDC power sources.

----------NOTES----------

1. For Units 2 and 3, a 125 VDC Vital I&C power source shall not be the only source for panelboards 1DIC and 1DID required by LCO 3.8.8.

2. Each additional 125 VDC Vital I&C source required by LCO 3.8.3 part b or part c shall be connected to at least one panelboard associated with the unit where the source is physically located.

3. The additional 125 VDC Vital I&C power source required by LCO 3.8.3 part c shall not be a 125 VDC Vital I&C power source that is available to meet the three of four requirement of LCO 3.8.3 part a.

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

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.4	Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify one DHR loop is in operation.	12 hours

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.10.1.11	Verify for required SSF battery that the cell to cell and terminal connections are clean, tight and coated with anti-corrosion material.	12 months
SR 3.10.1.12	Verify battery capacity of required battery is adequate to supply, and maintain in OPERABLE status, the required maximum loads for the design duty cycle when subjected to a battery service test.	12 months
SR 3.10.1.13	Perform CHANNEL CALIBRATION for each required SSF instrument channel.	18 months
SR 3.10.1.14	Verify OPERABILITY OF SSF valves in accordance with the Inservice Testing Program.	In accordance with the Inservice Testing Program
SR 3.10.1.15	----------NOTES---------- Not applicable to the SSF submersible pump. ---------- Verify the developed head of each required SSF pump at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.10.1.16	Verify the developed head of the SSF submersible pump at the flow test point is greater than or equal to the required developed head.	2 years

3.10 STANDBY SHUTDOWN FACILITY

3.10.2 Standby Shutdown Facility (SSF) Battery Cell Parameters

LCO 3.10.2 Battery cell parameters for the SSF batteries shall be within the limits of Table 3.10.2-1.

APPLICABILITY: When the associated SSF Power System battery is required to be OPERABLE.

ACTIONS

----------NOTE----------
LCO 3.0.4 is not applicable.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Required SSF battery with one or more battery cell parameters not within Category A or B limits.	A.1	Verify pilot cell(s) electrolyte level and float voltage meet Table 3.10.2-1 Category C values.	1 hour
	AND		
	A.2	Verify battery cell parameters meet Table 3.10.2-1 Category C values.	24 hours AND Once per 7 days thereafter
	AND		
	A.3	Restore battery cell parameters to Category A and B limits of Table 3.10.2-1.	90 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. OR Required SSF battery with average electrolyte temperature of the representative cells < 60°F. OR Required SSF battery with one or more battery cell parameters not within Category C values.	B.1 Declare SSF Power System inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.10.2.1	Verify battery cell parameters meet Table 3.10.2-1 Category A limits.	7 days
SR 3.10.2.2	Verify battery cell parameters meet Table 3.10.2-1 Category B limits.	92 days
SR 3.10.2.3	Verify average electrolyte temperature of representative cells is ≥ 60°F.	92 days

Table 3.10.2-1 (page 1 of 1)
Battery Cell Surveillance Requirements

PARAMETER	CATEGORY A: LIMITS FOR EACH DESIGNATED PILOT CELL	CATEGORY B: LIMITS FOR EACH CONNECTED CELL	CATEGORY C: ALLOWABLE LIMITS FOR EACH CONNECTED CELL
Electrolyte Level	≥ Minimum level indication mark, and ≤ ¼ inch above maximum level indication mark(a)	≥ Minimum level indication mark, and ≤ ¼ inch above maximum level indication mark(a)	Above top of plates, and not overflowing
Float Voltage	≥ 2.13 V	≥ 2.13 V	> 2.07 V
Specific Gravity(b)(c)	≥ 1.200	≥ 1.200 AND Not more than 0.010 below average of all connected cells	≥ 1.200

(a) It is acceptable for the electrolyte level to temporarily increase above the specified maximum during equalizing charges provided it is not overflowing.

(b) Corrected for electrolyte temperature and level. Level correction is not required, however, when battery float current is < 2 amps when on float charge.

(c) A battery float current of < 2 amps when on float charge is acceptable for meeting specific gravity limits following a battery recharge, for a maximum of 7 days. When float current is used in lieu of specific gravity requirements, the specific gravity of each connected cell shall be measured prior to expiration of the 7 day allowance.

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

General Discussion (continued)

assist the ESPS in providing acceptable consequences during accidents.

1a. Nuclear Overpower – High Setpoint;

2. RCS High Outlet Temperature;

3. RCS High Pressure;

4. RCS Low Pressure;

5. RCS Variable Low Pressure;

6. Reactor Building High Pressure;

7. Reactor Coolant Pump to Power; and

8. Nuclear Overpower Flux/Flow Imbalance.

Functions 1, 3, 4, 5, 7, and 8 just listed may be bypassed in MODE 2 when RCS pressure is below 1720 psig, provided the Shutdown Bypass RCS High Pressure and the Nuclear Overpower – Low setpoint trip are placed in operation. Under these conditions, the Shutdown Bypass RCS High Pressure trip and the Nuclear Overpower – Low setpoint trip act to prevent unit conditions from reaching a point where actuation of these Functions is necessary.

The Main Turbine Trip (Hydraulic Fluid Pressure) Function is required to be OPERABLE in MODE 1 at $\geq$ 30% RTP. The Loss of Main Feedwater Pumps (Hydraulic Oil Pressure) Function is required to be OPERABLE in MODE 1 and in MODE 2 at $\geq$ 2% RTP. Analyses presented in BAW-1893 (Ref. 6) have shown that for operation below these power levels, these trips are not necessary to minimize challenges to the PORVs as required by NUREG-0737 (Ref. 5).

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.11.1 (continued)

between each CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION.

Agreement criteria are based on a combination of the channel instrument uncertainties, including isolation, indication, and readability. If a channel is outside the criteria, it may be an indication that the transmitter or the signal processing equipment has drifted outside its limit. If the channels are within the criteria, it is an indication that the channels are OPERABLE. If the channels are normally off scale during times when surveillance is required, the CHANNEL CHECK will only verify that they are off scale in the same direction. Off scale low current loop channels are verified, where practical, to be reading at the bottom of the range and not failed downscale.

The Frequency, about once every shift, is based on operating experience that demonstrates channel failure is rare. Since the probability of two random failures in redundant channels in any 12 hour period is extremely low, the CHANNEL CHECK minimizes the chance of loss of protective function due to failure of redundant channels. The CHANNEL CHECK supplements less formal, but potentially more frequent, checks of channel OPERABILITY during normal operational use of the displays associated with the LCO required channels.

SR 3.3.11.2

A CHANNEL FUNCTIONAL TEST is performed on each required instrumentation channel to ensure the channel will perform its intended function.

The Frequency of 31 days is based on operating experience, with regard to channel OPERABILITY and drift, which demonstrates that failure of more than one channel in any 31 day interval is a rare event.

This SR is modified by a Note indicating that it is only applicable when modifications are implemented that allow online testing.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.4.15.1 (continued)

instrument reliability and is reasonable for detecting off normal conditions.

SR 3.4.15.2

SR 3.4.15.2 requires the performance of a CHANNEL FUNCTIONAL TEST of the required containment atmosphere radioactivity monitor. The test ensures that the monitor can perform its function in the desired manner. The test verifies the alarm setpoint and relative accuracy of the instrument string. The Frequency of 92 days considers instrument reliability, and operating experience has shown it proper for detecting degradation.

SR 3.4.15.3 and SR 3.4.15.4

These SRs require the performance of a CHANNEL CALIBRATION for each of the required RCS leakage detection instrumentation channels. The calibration verifies the accuracy of the instrument string, including the instruments located inside containment. The Frequency of 18 months is a typical refueling cycle and considers channel reliability. Industry operating experience has proven this Frequency is acceptable.

REFERENCES

1. UFSAR, Section 3.1.

2. 10 CFR 50.36.

BASES

APPLICABLE SAFETY ANALYSES (continued)

The CFTs are part of the primary success path that functions or actuates to mitigate an accident that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The minimum volume requirement for the CFTs ensures that both CFTs can provide adequate inventory to reflood the core (to the hot spot) and downcomer following a LOCA. The downcomer then remains flooded until the HPI and LPI systems start to deliver flow.

The maximum volume limit is based upon the need to maintain adequate gas volume to ensure proper injection, ensure the ability of the CFTs to fully discharge, and limit the maximum amount of boron inventory in the CFTs. The specified values (1010 ft^3 and 1070 ft^3) are allowable values. The corresponding CFT levels are 12.56 ft and 13.44 ft (allowable values).

The minimum nitrogen cover pressure requirement of 575 psig (allowable value) ensures that the contained gas volume will generate discharge flow rates during injection that are consistent with those assumed in the safety analysis.

The maximum nitrogen cover pressure limit of 625 psig (allowable value) ensures that the amount of CFT inventory that is discharged while the RCS depressurizes, and is therefore lost through the break, will not be larger than that predicted by the safety analysis.

The maximum allowable boron concentration specified in the COLR for the CFTs ensures that boron precipitation will not occur following a LOCA.

The minimum boron requirement of the COLR is selected to ensure that the reactor will remain subcritical during the reflood stage of a large break LOCA. During a large break LOCA, all CONTROL RODS are assumed not to insert into the core until reflood, and the initial reactor shutdown is accomplished by void formation during blowdown. Sufficient boron concentration must be maintained in the CFTs to prevent a return to criticality during reflood. After reflood, the analysis assumes one half of the CONTROL ROD worth is available.

(continued)

BASES

BACKGROUND (continued)

The 125 VDC Vital I&C power and 230 kV 125 VDC power distribution systems are described in more detail in the Bases for LCO 3.8.8, "Distribution System – Operating," and for LCO 3.8.9, "Distribution Systems – Shutdown."

APPLICABLE SAFETY ANALYSES

The initial conditions of accident and transient analyses in the UFSAR, Chapter 6 (Ref. 1) and Chapter 15 (Ref. 2), assume that Engineered Safeguards (ES) systems are OPERABLE. The 125 VDC Vital I&C electrical power system provides normal and emergency DC electrical power for the emergency auxiliaries, and control and switching during all MODES of operation.

The 230 kV switchyard 125 VDC Power System provides control power for circuit breaker operation in the 230 kV switchyard as well as DC power for degraded grid voltage protection circuits during all MODES of operation.

The OPERABILITY of the DC sources is consistent with the initial assumptions of the accident analyses and is based upon meeting the design basis of the unit. This includes maintaining the DC sources OPERABLE during accident conditions in the event of:

a. An assumed loss of all offsite AC power or all onsite AC power; and

b. A worst-case single failure.

The DC sources satisfy Criterion 3 of 10 CFR 50.36 (Ref. 3).

LCO

Each required 125 VDC electrical source consisting of one battery, associated battery charger, distribution center and the corresponding control equipment and interconnecting cabling supplying power to the associated panelboards is required to be OPERABLE to ensure the availability of the required power to shut down the reactor and maintain it in a safe condition after an anticipated transient or an accident.

(continued)

BASES

LCO (continued)

For operation of any Oconee unit, three of four 125 VDC Vital I&C Sources capable of supplying the unit's DC distribution system shall be OPERABLE as follows:

Unit 1: 1CA, 1CB, 2CA, 2CB
Unit 2: 2CA, 2CB, 3CA, 3CB
Unit 3: 3CA, 3CB, 1CA, 1CB

and aligned to at least one panelboard provided that a power source is not the only source for two or more of the Unit's panelboards. The three of four requirement ensures that a single failure will not result in a loss of power to more than one 125 VDC Vital I&C panelboard. This requirement ensures supported safety functions are not vulnerable to a single failure.

When any other unit is in MODES 1, 2, 3, or 4, two additional 125 VDC Vital I&C Sources are required to be OPERABLE as modified by LCO Note 2. When no other Unit is in MODES 1, 2, 3, or 4, one additional 125 VDC Vital I&C power source is required to be OPERABLE as modified by LCO Notes 2 and 3. These additional requirements ensure sufficient capacity and voltage for supported DC loads assuming a single failure.

The requirement that two 230 kV 125 VDC sources be OPERABLE ensures that supported safety functions are not vulnerable to a single failure.

The LCO is modified by three Notes. Note 1, which applies to Units 2 and 3 only, indicates that no single 125 VDC Vital I&C source shall be the only source for panelboards 1DIC and 1DID. This is necessary since vital I&C panelboards 1DIC and 1DID supply power for SK and SL breaker control, protective relaying for both standby buses, breaker control for both standby breakers for the three Oconee units, and retransfer to startup source logic circuits for the three Oconee units. The requirement that no single 125 VDC source be the only source of power for panelboards 1DIC and 1DID ensures than a single failure will not result in a loss of power to both panelboards. This requirement ensures supported safety functions are not vulnerable to a single failure.

(continued)

BASES

LCO (continued)

Note 2 indicates that each additional 125 VDC Vital I&C source required by part b or part c of the LCO shall be connected to at least one panelboard associated with the unit where the source is physically located. For example, when applying the LCO requirements to Unit 1, an additional source from Unit 2 must be connected to at least one Unit 2 panelboard and an additional source from Unit 3 must be connected to at least one Unit 3 panelboard. If the additional sources are from Unit 3, each additional source need only be connected to at least one Unit 3 panelboard. Note 3 specifies that the additional 125 VDC Vital I&C power source required by LCO 3.8.3 part c shall not be a power source that is available to meet the three of four requirement of LCO 3.8.3 part a. This ensures that there is one source physically located on each unit not in MODES 1, 2, 3, or 4. For example, when applying the LCO requirements to Unit 1, the additional source cannot be a Unit 1 or Unit 2 power source since these are available to meet the three of four requirement. Therefore, a Unit 3 power source must be OPERABLE. Note 2 and 3 requirements are necessary to assure assumptions in the DC capacity and voltage drop analyses for the operating unit are valid.

APPLICABILITY

The DC electrical power sources are required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure safe unit operation and to ensure that:

a. Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded as a result of transients and accidents; and

b. Adequate core cooling is provided, and containment integrity and other vital functions are maintained in the event of a postulated accident.

The DC electrical power requirements for MODES 5 and 6 are addressed in the Bases for LCO 3.8.4, "DC Sources – Shutdown."

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.10.1.12 (continued)

cycle requirements. The design basis discharge time for the SSF battery is one hour.

The Surveillance Frequency for this test is 12 months. This Frequency is considered acceptable based on operating experience.

SR 3.10.1.13

CHANNEL CALIBRATION is a complete check of the instrument channel, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drift to ensure that the instrument channel remains operational between successive tests. CHANNEL CALIBRATION shall find that measurement errors and bistable setpoint errors are within the assumptions of the setpoint analysis. CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the setpoint analysis. This Frequency is justified by the assumption of an 18 month calibration interval to determine the magnitude of equipment drift in the setpoint analysis.

SR 3.10.1.14

Inservice Testing of the SSF valves demonstrates that the valves are mechanically OPERABLE and will operate when required. These valves are required to operate to ensure the required flow path.

The specified Frequency is in accordance with the IST Program requirements. Operating experience has shown that these components usually pass the SR when performed at the IST Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.10.1.15

This SR requires the SSF pumps to be tested in accordance with the IST Program. The IST verifies the required flow

(continued)

ENCLOSURE 5

PROPOSED LICENSE CONDITIONS

Section 3 of the Facility Operating License, DPR-38, DPR-47 and DPR-55, should be revised to include the following additional subparagraphs:

The licensee is authorized to relocate certain requirements included in Appendix A to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's letter dated October 28, 1997, March 26, May 20, July 29, October 1, October 21, October 28 and November 23, 1998, evaluated in the NRC staff's Safety Evaluation enclosed with this amendment.

For Surveillance Requirements (SRs) that are new in Amendment 300 to Facility Operating License DPR-38, DPR-47 and DPR-55, the SRs are considered to be met until the first performance. The first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 300. For SRs that existed prior to Amendment 300, including SRs with modified acceptance criteria and SRs whose intervals of performance are being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 300. For SRs that existed prior to Amendment 300 and having acceptance criteria which is more restrictive, the SRs are considered to be met until the first performance. For SRs that existed prior to Amendment 300, whose intervals of performance are being reduced, each surveillance may be performed at the existing interval until completion of the first surveillance after implementation of Amendment 300. Subsequent performance of SRs with reduced intervals shall be performed at the reduced interval.