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10 CFR 50.90

March 31, 2022
Serial: RA-22-0057

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Oconee Nuclear Station (ONS), Units 1, 2, and 3
Docket Numbers 50-269, 50-270, and 50-287
Renewed Facility Operating License Nos. DPR-38, DPR-47, and DPR-55

Subject: License Amendment Request to Address Technical Specifications Mode Change Limitations

Ladies and Gentlemen:

Pursuant to 10 CFR 50.90, Duke Energy Carolinas, LLC (Duke Energy), proposes to amend the Technical Specifications (TS) for Oconee Nuclear Station (ONS) Units 1, 2, and 3. The proposed amendment would revise ONS TS to address additional mode change limitations applicable to the adoption of Technical Specifications Tasks Force (TSTF) Traveler No. 359, Revision 9, "Increase Flexibility in Mode Restraints" (ADAMS Accession No. ML031190607) per Amendment Numbers 417, 419, and 418 to Renewed Facility Operating Licenses for ONS Units 1, 2, and 3, respectively (ADAMS Accession No. ML20237F435).

The Enclosure to this letter provides a description and assessment of the proposed change. Attachment 1 provides the existing TS pages marked to show the proposed changes. Attachment 2 provides retyped (clean) TS pages. Attachment 3 provides existing TS Bases pages marked to show the proposed change, for information only.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c), and it has been determined that the proposed change involves no significant hazards consideration. The basis for this determination is included in the Enclosure.

Duke Energy requests approval of the proposed amendment to the ONS TS within one year of the date this submittal is accepted by the Nuclear Regulatory Commission staff for review. Once approved, Duke Energy will implement the license amendment within 90 days. There are no regulatory commitments contained within this submittal.

In accordance with 10 CFR 50.91, Duke Energy is notifying the State of South Carolina of this license amendment request by transmitting a copy of this letter and Enclosure to the designated State Official.

If there are any questions or if additional information is needed, please contact Mr. Lee Grzeck, Acting Manager – Nuclear Fleet Licensing, at 980-373-1530.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 31, 2022.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven M. Snider". The signature is fluid and cursive, with the first name "Steven" being more prominent and the last name "Snider" following in a similar style.

Steven M. Snider
Site Vice President
Oconee Nuclear Station

Enclosure: Description and Assessment of the Proposed Change

Attachment 1: Technical Specifications Markup

Attachment 2: Revised (Clean) Technical Specifications

Attachment 3: Technical Specifications Bases Markup (Information Only)

cc: L. Dudes, NRC Regional Administrator, Region II
J. Nadel, USNRC Senior Resident Inspector – ONS
S. A. Williams, NRR Project Manager – ONS
A. Nair-Gimmi – SC Department of Health & Environmental Control

ENCLOSURE

DESCRIPTION AND ASSESSMENT OF THE PROPOSED CHANGE

Subject: License Amendment Request to Address Technical Specifications Mode Change Limitations

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ATTACHMENTS:

1. Technical Specifications Markup
2. Revised (Clean) Technical Specifications
3. Technical Specifications Bases Markup (Information Only)

1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, Duke Energy Carolinas, LLC (Duke Energy), proposes to amend the Technical Specifications (TS) for Oconee Nuclear Station (ONS) Units 1, 2, and 3. The proposed amendment would revise ONS TS to address additional mode change limitations applicable to the adoption of Technical Specifications Tasks Force (TSTF) Traveler No. 359, Revision 9, "Increase Flexibility in Mode Restraints" (ADAMS Accession No. ML031190607) per Amendment Numbers 417, 419, and 418 to Renewed Facility Operating Licenses (RFOLs) for ONS Units 1, 2, and 3, respectively.

Specifically, the proposed change would remove the notes restricting the applicability of Limiting Condition for Operation (LCO) 3.0.4 to TS 3.6.5, "Reactor Building Spray and Cooling Systems," TS 3.7.10a, "Protected Service Water (PSW) Battery Cell Parameters," TS 3.7.16, "Control Room Area Cooling Systems (CRACS)," TS 3.8.5, "Battery Cell Parameters," TS 3.10.1, "Standby Shutdown Facility (SSF)," and TS 3.10.2, "Standby Shutdown Facility (SSF) Battery Cell Parameters." These notes limiting the applicability of the current ONS LCO 3.0.4 are holdovers that are no longer applicable with the adoption of TSTF-359.

2.0 DETAILED DESCRIPTION

2.1 Background

By letter dated September 4, 2020 (ADAMS Accession No. ML20237F435), the NRC issued RFOL Amendment Numbers 417, 419, and 418 for ONS Units 1, 2, and 3, respectively. These amendments modified the TS requirements for mode change limitations in LCO 3.0.4 and Surveillance Requirement (SR) 3.0.4 to adopt the provisions of TSTF-359. The availability of TSTF-359 for adoption by licensees was announced in the *Federal Register* on April 4, 2003 (68 FR 16579) as part of the Consolidated Line Item Improvement Process (CLIIP). This traveler is one of the industry's initiatives under the risk-informed TS program, intended to maintain or improve safety while reducing unnecessary burden and to make TS requirements consistent with the NRC's other risk-informed regulatory requirements, in particular, the Maintenance Rule.

In the original application, dated February 6, 2020 (ADAMS Accession No. ML20041F551), Duke Energy proposed variations from the TS changes described in the modified TSTF-359, Revision 8 (ADAMS Accession No. ML023430260), and the NRC staff's model safety evaluation published in the *Federal Register* on April 4, 2003 (68 FR 16579). One such variation discussed the ONS TS utilization of different numbering and titles than NUREG-1430, "Standard Technical Specifications – Babcock and Wilcox Plants" (ADAMS Accession No. ML12100A177), on which TSTF-359 was based. Additionally, the ONS TS did not contain all of the TS that were revised by TSTF-359. It was established that these differences were administrative and did not affect the applicability of TSTF-359 to the ONS TS.

2.2 Current Technical Specifications

With the issuance of ONS License Amendment Nos. 417, 419, and 418 for Units 1, 2, and 3, respectively, LCO 3.0.4 is as follows:

When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications, or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The Duke Energy application associated with License Amendments 417, 419, and 418 for the adoption of TSTF-359 did not identify and seek removal of TS notes for various site-specific TS that previously restricted the applicability of LCO 3.0.4. Specifically, the following ONS TS contain holdover notes restricting the applicability of LCO 3.0.4:

- TS 3.6.5 – Reactor Building Spray and Cooling Systems
- TS 3.7.10a – Protected Service Water (PSW) Battery Cell Parameters
- TS 3.7.16 – Control Room Area Cooling Systems (CRACS)
- TS 3.8.5 – Battery Cell Parameters
- TS 3.10.1 – Standby Shutdown Facility (SSF)
- TS 3.10.2 – Standby Shutdown Facility (SSF) Battery Cell Parameters

2.3 Reason for the Proposed Change

The ONS TS listed above have notes stating that LCO 3.0.4 is not applicable. These notes allowed, prior to the ONS adoption of TSTF-359, for entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate. The six ONS TS listed above should have been included in the scope of the application to adopt TSTF-359 such that the notes precluding the applicability of LCO 3.0.4 would have been removed. With the change to LCO 3.0.4 approved by the issuance of Amendment Nos. 417, 419, and 418, ONS no longer needs to limit the applicability of LCO 3.0.4 to these TS. Rather, ONS proposes that LCO 3.0.4 be applicable to these TS.

2.4 Description of the Proposed Change

The proposed change will delete holdover Notes that provide exception to LCO 3.0.4 that are no longer applicable due to the adoption of TSTF-359. Specifically:

TS 3.6.5 – Reactor Building Spray and Cooling Systems

Delete:

-----NOTE-----
LCO 3.0.4 is not applicable for Unit 2.

TS 3.7.10a – Protected Service Water (PSW) Battery Cell Parameters

Delete:

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

TS 3.7.16 – Control Room Area Cooling Systems (CRACS)

Delete from Action C:

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

TS 3.8.5 – Battery Cell Parameters

Revise Notes to delete Note 2:

-----NOTES-----
4. Separate Condition entry is allowed for each battery.
2. ~~LCO 3.0.4 is not applicable.~~

TS 3.10.1 – Standby Shutdown Facility (SSF)

Delete:

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

TS 3.10.2 – Standby Shutdown Facility (SSF) Battery Cell Parameters

Delete:

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

3.0 TECHNICAL EVALUATION

The ONS TS identified in Section 2.2 above are plant-specific TS that are not contained in NUREG-1430 and, therefore, were not included in the NUREG-1430 mark-ups provided in TSTF-359. Additionally, the identified systems and components are not considered higher-risk systems per the industry owners groups analyses provided in TSTF-359. Per letter dated September 4, 2020, the NRC issued license amendment Nos. 417, 419, and 418 to the ONS ROFLs for Units 1, 2, and 3, respectively, allowing for adoption of TSTF-359, Revision 9. The associated safety evaluation, as based on the model provided in the *Federal Register* (FR) notice published on April 4, 2003 (68 FR 16579), discusses holdover notes limiting the applicability of LCO 3.0.4. Specifically, it states that these notes limiting applicability are no longer needed and are removed consistent with approved TSTF-359, Revision 9.

The proposed changes of this submittal to remove holdover notes addresses administrative deviations from TSTF-359 with no impact on the NRC staff's safety evaluation pertaining to the adoption of TSTF-359, Revision 9, by ONS. The objective of the proposed amendment is to

restore the operational flexibility afforded these systems or components prior to and concurrent with the adoption of TSTF-359 without compromising plant safety.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements and Guidance

10 CFR 50.36, "Technical specifications"

The NRC's regulatory requirements related to the content of the TS are set forth in 10 CFR 50.36, "Technical specifications." This regulation requires that the TS include items in the following five specific categories: (1) safety limits, limiting safety system settings, and limiting control settings, (2) limiting conditions for operation, (3) surveillance requirements, (4) design features, and (5) administrative controls. The regulation does not specify the particular requirements to be included in a plant's TS.

Per 10 CFR 50.36(c)(2)(ii), a TS LCO must be established for each item meeting one or more of the following criteria:

- Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 4: A structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety.

Conclusion

Duke Energy has evaluated the proposed change against the applicable regulatory requirements described above. Based on this evaluation, there is reasonable assurance that the health and safety of the public will remain unaffected following the approval of the proposed change.

4.2 No Significant Hazards Consideration Determination Analysis

Pursuant to 10 CFR 50.90, Duke Energy Carolinas, LLC (Duke Energy), proposes to amend the Technical Specifications (TS) for Oconee Nuclear Station (ONS) Units 1, 2, and 3. The proposed amendment would revise ONS TS to address additional mode change limitations applicable to the adoption of Technical Specifications Task Force (TSTF) Traveler No. 359, Revision 9, "Increase Flexibility in Mode Restraints" (ADAMS Accession No. ML031190607) per Amendment Numbers 417, 419, and 418 to Renewed Facility Operating Licenses (RFOLs) for ONS Units 1, 2, and 3, respectively.

Duke Energy previously reviewed the proposed no significant hazards consideration determination (NSHCD) published in the *Federal Register* as part of the Consolidated Line Item Improvement Process (CLIIP) utilized for the adoption of TSTF-359. Duke Energy has concluded that the proposed NSHCD presented in the *Federal Register* notice remains applicable to ONS for the additional proposed variations to TSTF-359 and is provided below to satisfy the requirements of 10 CFR 50.91(a).

Criterion 1 – The Proposed Change Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

The proposed change allows entry into a mode or other specified condition in the applicability of a TS, while in a TS condition statement and the associated required actions of the TS. Being in a TS condition and the associated required actions is not an initiator of any accident previously evaluated. Therefore, the probability of an accident previously evaluated is not significantly increased. The consequences of an accident while relying on required actions as allowed by Limiting Condition of Operation (LCO) 3.0.4, are no different than the consequences of an accident while entering and relying on the required actions while starting in a condition of applicability of the TS. Therefore, the consequences of an accident previously evaluated are not significantly affected by this change. The addition of a requirement to assess and manage the risk introduced by this change will further minimize possible concerns. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2 – The Proposed Change Does Not Create the Possibility of a New or Different Kind of Accident From Any Previously Evaluated

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed). Entering into a mode or other specified condition in the applicability of a TS, while in a TS condition statement and the associated required actions of the TS, will not introduce new failure modes or effects and will not, in the absence of other unrelated failures, lead to an accident whose consequences exceed the consequences of accidents previously evaluated. The addition of a requirement to assess and manage the risk introduced by this change will further minimize possible concerns. Thus, this change does not create the possibility of a new or different kind of accident from an accident previously evaluated.

Criterion 3 – The Proposed Change Does Not Involve a Significant Reduction in the Margin of Safety

The proposed change allows entry into a mode or other specified condition in the applicability of a TS, while in a TS condition statement and the associated required actions of the TS. The TS allow operation of the plant without the full complement of equipment through the conditions for not meeting the TS LCO. The risk associated with this allowance is managed by the imposition of required actions that must be performed within the prescribed completion times. The net effect of being in a TS condition on the margin of safety is not considered significant. The proposed change does not alter the required actions or completion times of the TS. The proposed change allows TS conditions to be entered, and the associated required actions and completion times to be used in new circumstances. This use is predicated upon the licensee's performance of a risk assessment and the management of plant risk. The change also eliminates current allowances for utilizing required actions and completion times in similar circumstances, without assessing and

managing risk. The net change to the margin of safety is insignificant. Therefore, this change does not involve a significant reduction in a margin of safety.

Based upon the above evaluation, Duke Energy concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c) and, accordingly, a finding of "no significant hazards consideration" is justified.

4.3 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATIONS

Duke Energy has reviewed the environmental evaluation included in the model safety evaluation dated April 4, 2003 as part of the CLIIP for TSTF-359. Duke Energy has concluded that the staff's findings presented in that evaluation remain applicable to Oconee Nuclear Station, Unit Nos. 1, 2, and 3, for this application and is provided as follows:

The amendments change the requirements with respect to installation or use of a facility's components located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (85 FR 29984, dated May 19, 2020). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

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Attachment 1

ATTACHMENT 1

TECHNICAL SPECIFICATIONS MARKUP

3.6 CONTAINMENT SYSTEMS

3.6.5 Reactor Building Spray and Cooling Systems

LCO 3.6.5 Two reactor building spray trains and three reactor building cooling trains shall be OPERABLE.

-----NOTE-----
Only one train of reactor building spray and two trains of reactor building cooling are required to be OPERABLE during MODES 3 and 4.

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

ACTIONS

-----NOTE-----
LCO 3.0.4 is not applicable for Unit 2.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One reactor building spray train inoperable in MODE 1 or 2.	A.1 Restore reactor building spray train to OPERABLE status.	7 days <u>AND</u> 14 days from discovery of failure to meet the LCO
B. One reactor building cooling train inoperable in MODE 1 or 2.	B.1 Restore reactor building cooling train to OPERABLE status.	7 days <u>AND</u> 14 days from discovery of failure to meet the LCO

(continued)

3.7 PLANT SYSTEMS

3.7.10a Protected Service Water (PSW) Battery Cell Parameters

LCO 3.7.10a Battery Cell parameters for the required PSW battery shall be within limits.

APPLICABILITY: When the PSW system is required to be OPERABLE.

ACTIONS

~~NOTE~~

LCO 3.0.4 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required battery with one or more battery cell float voltages ≤ 2.07 V.	A.1 Perform SR 3.7.10.1	2 hours
	<u>AND</u>	
	A.2 Perform SR 3.7.10a.1.	2 hours
	<u>AND</u>	
	A.3 Restore affected cell voltage > 2.07 V.	24 hours
B. Required battery with float current > 2 amps.	B.1 Perform SR 3.7.10.1	2 hours
	<u>AND</u>	
	B.2 Restore battery float current to ≤ 2 amps.	12 hours

(continued)

3.7 PLANT SYSTEMS

3.7.16 Control Room Area Cooling Systems (CRACS)

LCO 3.7.16 Two CRACS trains shall be OPERABLE as follows:

- a. Two trains of the Control Room Ventilation System (CRVS) shall be OPERABLE, and
- b. Two trains of the Chilled Water (WC) System shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4,
During movement of recently irradiated fuel assemblies.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CRVS train inoperable.	A.1 Restore CRVS train to OPERABLE status.	30 days
B. One WC train inoperable.	B.1 Restore WC train to OPERABLE status.	30 days
C. Control Room area air temperature not within limit.	<div style="border: 1px solid red; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">-----NOTE----- LCO 3.0.4 is not applicable.</p> </div> <p>C.1 Restore Control Room area air temperature within limit.</p>	7 days

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 Battery Cell Parameters

LCO 3.8.5 Battery cell parameters for the Keowee Hydro Unit (KHU), 125 VDC Vital I&C, and 230 kV 125 VDC switchyard batteries shall be within the limits of Table 3.8.5-1.

APPLICABILITY: When associated DC power sources are required to be OPERABLE.

ACTIONS

~~NOTES~~

- ~~1. Separate Condition entry is allowed for each battery.~~
- ~~2. LCO 3.0.4 is not applicable.~~

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more batteries with one or more battery cell parameters not within Category A or B limits.	A.1 Verify pilot cell electrolyte level and float voltage meet Table 3.8.5-1 Category C values.	1 hour
	<u>AND</u>	
	A.2 Verify battery cell parameters meet Table 3.8.5-1 Category C values.	24 hours
	<u>AND</u>	Once per 7 days thereafter
	<u>AND</u>	
	A.3 Restore battery cell parameters to Category A and B limits of Table 3.8.5-1.	90 days

(continued)

3.10 STANDBY SHUTDOWN FACILITY

3.10.1 Standby Shutdown Facility (SSF)

LCO 3.10.1 The SSF Instrumentation and the following SSF Systems shall be OPERABLE:

- a. SSF Auxiliary Service Water System;
- b. SSF Portable Pumping System;
- c. SSF Reactor Coolant Makeup System; and
- d. SSF Power System.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

NOTE

LCO 3.0.4 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. SSF Auxiliary Service Water System inoperable.	A.1 Restore SSF Auxiliary Service Water System to OPERABLE status.	7 days
B. SSF Portable Pumping System inoperable.	B.1 Restore SSF Portable Pumping System to OPERABLE status.	7 days

(continued)

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
	<u>AND</u>	
	A.2 Verify battery cell parameters meet Table 3.10.2-1 Category C values.	24 hours <u>AND</u> Once per 7 days thereafter
	<u>AND</u>	
	A.3 Restore battery cell parameters to Category A and B limits of Table 3.10.2-1.	90 days

(continued)

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Attachment 2

ATTACHMENT 2

REVISED (CLEAN) TECHNICAL SPECIFICATIONS

3.6 CONTAINMENT SYSTEMS

3.6.5 Reactor Building Spray and Cooling Systems

LCO 3.6.5 Two reactor building spray trains and three reactor building cooling trains shall be OPERABLE.

-----NOTE-----
Only one train of reactor building spray and two trains of reactor building cooling are required to be OPERABLE during MODES 3 and 4.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One reactor building spray train inoperable in MODE 1 or 2.	A.1 Restore reactor building spray train to OPERABLE status.	7 days <u>AND</u> 14 days from discovery of failure to meet the LCO
B. One reactor building cooling train inoperable in MODE 1 or 2.	B.1 Restore reactor building cooling train to OPERABLE status.	7 days <u>AND</u> 14 days from discovery of failure to meet the LCO

(continued)

3.7 PLANT SYSTEMS

3.7.10a Protected Service Water (PSW) Battery Cell Parameters

LCO 3.7.10a Battery Cell parameters for the required PSW battery shall be within limits.

APPLICABILITY: When the PSW system is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required battery with one or more battery cell float voltages ≤ 2.07 V.	A.1 Perform SR 3.7.10.1	2 hours
	<u>AND</u>	
	A.2 Perform SR 3.7.10a.1.	2 hours
	<u>AND</u>	
	A.3 Restore affected cell voltage > 2.07 V.	24 hours
B. Required battery with float current > 2 amps.	B.1 Perform SR 3.7.10.1	2 hours
	<u>AND</u>	
	B.2 Restore battery float current to ≤ 2 amps.	12 hours

(continued)

3.7 PLANT SYSTEMS

3.7.16 Control Room Area Cooling Systems (CRACS)

LCO 3.7.16 Two CRACS trains shall be OPERABLE as follows:

- a. Two trains of the Control Room Ventilation System (CRVS) shall be OPERABLE, and
- b. Two trains of the Chilled Water (WC) System shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4,
During movement of recently irradiated fuel assemblies.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CRVS train inoperable.	A.1 Restore CRVS train to OPERABLE status.	30 days
B. One WC train inoperable.	B.1 Restore WC train to OPERABLE status.	30 days
C. Control Room area air temperature not within limit.	C.1 Restore Control Room area air temperature within limit.	7 days

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 Battery Cell Parameters

LCO 3.8.5 Battery cell parameters for the Keowee Hydro Unit (KHU), 125 VDC Vital I&C, and 230 kV 125 VDC switchyard batteries shall be within the limits of Table 3.8.5-1.

APPLICABILITY: When associated DC power sources are required to be OPERABLE.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each battery.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more batteries with one or more battery cell parameters not within Category A or B limits.	A.1 Verify pilot cell electrolyte level and float voltage meet Table 3.8.5-1 Category C values.	1 hour
	<u>AND</u> A.2 Verify battery cell parameters meet Table 3.8.5-1 Category C values.	24 hours <u>AND</u> Once per 7 days thereafter
	<u>AND</u> A.3 Restore battery cell parameters to Category A and B limits of Table 3.8.5-1.	90 days

(continued)

3.10 STANDBY SHUTDOWN FACILITY

3.10.1 Standby Shutdown Facility (SSF)

LCO 3.10.1 The SSF Instrumentation and the following SSF Systems shall be OPERABLE:

- a. SSF Auxiliary Service Water System;
- b. SSF Portable Pumping System;
- c. SSF Reactor Coolant Makeup System; and
- d. SSF Power System.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. SSF Auxiliary Service Water System inoperable.	A.1 Restore SSF Auxiliary Service Water System to OPERABLE status.	7 days
B. SSF Portable Pumping System inoperable.	B.1 Restore SSF Portable Pumping System to OPERABLE status.	7 days

(continued)

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

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

(continued)

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Attachment 3

ATTACHMENT 3

TECHNICAL SPECIFICATIONS BASES MARKUP (INFORMATION ONLY)

BASES

LCO
(continued)

Each reactor building spray train shall include a spray pump, spray headers, nozzles, valves, piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the BWST (via the LPI System) upon an Engineered Safeguards Protective System signal and manually transferring suction to the reactor building sump. Management of gas voids is important to RBS OPERABILITY. The OPERABILITY of RBS train flow instrumentation is not required for OPERABILITY of the corresponding RBS train because system resistance hydraulically maintains adequate NPSH to the RBS pumps and manual throttling of RBS flow is not required. During an event, LPI train flow must be monitored and controlled to support the RBS train pumps to ensure that the NPSH requirements for the RBS pumps are not exceeded. If the flow instrumentation or the capability to control the flow in a LPI train is unavailable then the associated RBS train's OPERABILITY is affected until such time as the LPI train is restored or the associated LPI pump is placed in a secured state to prevent actuation during an event.

Each reactor building cooling train shall include cooling coils, fusible dropout plates or duct openings, an axial vane flow fan, instruments, valves, and controls to ensure an OPERABLE flow path. Two headers of the LPSW RB Waterhammer Prevention Discharge Isolation Valves are required to support flowpath OPERABILITY or one header of LPSW RB Waterhammer Prevention Discharge Isolation Valves shall be manually opened (remote or local) to prevent automatic closure. Valve LPSW-108 shall be locked open to support system OPERABILITY.

APPLICABILITY

In MODES 1, 2, 3, and 4, an accident could cause a release of radioactive material to containment and an increase in containment pressure and temperature, requiring the operation of the reactor building spray trains and reactor building cooling trains.

In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Thus, the Reactor Building Spray System and the Reactor Building Cooling System are not required to be OPERABLE in MODES 5 and 6.

ACTIONS

~~The Actions are modified by a Note indicating that the provisions of LCO 3.0.4 do not apply for Unit 2 only. As a result, this allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and~~

BASES

ACTIONS
(continued)

~~establishment of risk management actions, if appropriate. The risk assessment may use quantitative, qualitative, or blended approaches and the risk assessment will be conducted using the plant program, procedures, and criteria in place to implement 10 CFR 50.65(a)(4), which requires that risk impacts of maintenance activities to be assessed and managed. The risk assessment must take into account all inoperable Technical Specifications equipment regardless of whether the equipment is included in the normal 10 CFR 50.65(a)(4) risk assessment scope. The risk assessments will be conducted using the procedures and guidance endorsed by Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." These documents address general guidance for conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to plan and conduct other activities in a manner that controls overall risk, increased risk awareness by shift and management personnel, actions to reduce the duration of the condition, actions to minimize the magnitude of risk increases (establishment of backup success paths or compensatory measures), and determination that the proposed MODE change is acceptable. Consideration should also be given to the probability of completing restoration such that the requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability. The risk assessment does not have to be documented.~~

~~There is a small subset of systems and components that have been determined (Ref: B&W owners group generic qualitative risk assessments attachment to TSTF 359, Rev. 9, "B&W owners group Qualitative Risk Assessment for Increased Flexibility in MODE Restraints," Framatome Technologies BAW 2383, October 2001.) to be of higher risk significance for which an LCO 3.0.4 exemption would not be allowed. For Oconee these are the Decay Heat Removal System (DHR) entering MODES 5 and 4; Keowee Hydro Units entering MODES 1-5; and the emergency feedwater system (EFW) entering MODE 1. The Reactor Spray and Cooling System is not one of the higher risk significant systems noted.~~

~~The provisions of this Note should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified Condition in the Applicability.~~

BASES (continued)

LCO For PSW DC System OPERABILITY, only one (1) battery and one (1) battery charger is required to be aligned to the PSW DC Bus. A minimum of 58 of 60 cells are required for a battery to be considered OPERABLE.

PSW Battery parameters must remain within acceptable limits to ensure availability of the PSW DC power system after an occurrence that disables essential systems and components needed for safe shutdown. Battery parameter limits are conservatively established, allowing continued PSW DC electrical system function even with limits not met. Additional preventative maintenance, testing, and monitoring for the PSW batteries are performed in accordance with the PSW Battery Monitoring and Maintenance Program specified in Specification 5.5.22.

APPLICABILITY The battery parameters are required solely for the support of the associated PSW electrical power systems; therefore, battery parameter limits are only required when the PSW DC power source is required to be OPERABLE. Refer to the Applicability discussion in the Bases for LCO 3.7.10.

ACTIONS ~~The exception for LCO 3.0.4 provided in the NOTE of the Actions, permits entry into MODES 1 or 2 with the PSW system not OPERABLE. This is acceptable because the PSW is not required to support normal operation of the facility or to mitigate a design basis event.~~

A.1, A.2, and A.3

With one or more cells in the required battery ≤ 2.07 V, the battery cell is degraded. Within 2 hours verification of the required battery charger OPERABILITY is made by monitoring the battery terminal voltage (SR 3.7.10.1) and the overall battery state of charge by monitoring the battery float charge current (SR 3.7.10a.1). This assures that there is still sufficient battery capacity to perform the intended function. Therefore, the affected battery is not required to be considered inoperable solely as a result of one or more cells in a battery ≤ 2.07 V, and continued operation is permitted for a limited period up to 24 hours.

Since the Required Actions only specify "perform," a failure of SR 3.7.10.1 or SR 3.7.10a.1 acceptance criteria does not result in this Required Action not met. However, if one of the SRs is failed, the

BASES (continued)

ACTIONS

A.1

With one CRVS train inoperable for the control area, action must be taken to restore the CRVS train to OPERABLE status within 30 days. In this Condition, the remaining OPERABLE CRVS train is adequate to maintain the control area temperature within limits. However, the overall reliability is reduced because a failure in the OPERABLE CRVS train could result in a loss of CRVS cooling function. The 30 day Completion Time is based on the low probability of a loss of CRVS cooling component and the time necessary to perform repairs to CRVS cooling equipment.

B.1

With one WC train inoperable for a control area portion, action must be taken to restore the WC train to OPERABLE status within 30 days. In this Condition, the remaining OPERABLE WC train is adequate to maintain the control area portion temperature within limits. However, the overall reliability is reduced because a failure in the OPERABLE WC train could result in a loss of CRACS cooling function. The 30 day Completion Time is based on the low probability of a loss of WC cooling component, and on the time necessary to perform repairs to WC cooling equipment.

C.1

With the control room area air temperature outside its limit, action must be taken to restore the air temperature to within the limit within 7 days. If the control room area air temperature exceeds its limit, the ability of a single train of CRACS to maintain control room area temperature may be affected. The Completion Time of 7 days is reasonable considering the remaining CRACS train available to perform the required temperature control function and the low probability of an event occurring that would require the CRACS operation during that time.

~~The Required Actions are modified by a Note that states LCO 3.0.4 is not applicable. In consideration of the redundant CRACS train available, the small variation in temperature expected between 12 hour surveillances, and the marginal impact small temperature variations may have on the ability of a CRACS train to maintain the control room temperature within limits, an exception to LCO 3.0.4 is applicable for this condition.~~

BASES (continued)

LCO Battery cell parameters must remain within acceptable limits to ensure availability of the required DC power to shut down the reactor and maintain it in a safe condition after a transient or a postulated accident. Electrolyte limits are conservatively established, allowing continued DC electrical system function even with Category A and B limits not met.

APPLICABILITY The battery cell parameters are required solely for the support of the associated DC electrical power sources. Therefore, battery cell parameters are only required to be met when the DC power source is required to be OPERABLE. Refer to the Applicability discussion in Bases for LCO 3.8.1, LCO 3.8.2, LCO 3.8.3 and LCO 3.8.4.

ACTIONS The ACTIONS Table is modified by a Note which indicates that separate Condition Entry is allowed for each battery. This is acceptable, since the Required Actions for each Condition provides appropriate compensatory actions for each inoperable DC source. Complying with the Required Actions for one inoperable DC source may allow for continued operation, and subsequent inoperable DC sources(s) are governed by separate Condition entry and application of associated Required Actions.

~~A second Note states that LCO 3.0.4 is not applicable. This is acceptable since a battery remains OPERABLE when one or more cells does not meet Category A or B limits but continues to meet Category C limits. Failure to meet Category C limits requires declaring the associated battery inoperable. LCO 3.0.4 requirements are applicable to the requirements of LCO 3.8.3, "DC Sources – Operating" for an inoperable battery.~~

A.1, A.2, and A.3

With one or more cells in one or more batteries not within limits (i.e., Category A limits not met or Category B limits not met or Category A and B limits not met) but within the Category C limits specified in Table 3.8.5-1 in the accompanying LCO, the battery is degraded but there is still sufficient capacity to perform the intended function. Therefore, the affected battery is not required to be considered inoperable solely as a result of Category A or B limits not met, and continued operation is permitted for a limited period.

BASES

ACTIONS

~~The exception for LCO 3.0.4, provided in the Note of the Actions, permits entry into MODES 1, 2, and 3 with the SSF not OPERABLE. This is acceptable because the SSF is not required to support normal operation of the facility or to mitigate a design basis accident.~~

A.1, B.1, C.1, D.1, and E.1

With one or more of the SSF Systems inoperable or the required SSF instrumentation of Table B 3.10.1-1 inoperable, the SSF is in a degraded condition and the system(s) or instrumentation must be restored to OPERABLE status within 7 days. The 7 day Completion Time is based on the low probability of an event occurring which would require the SSF to be utilized.

E.1

If the Required Action and associated Completion Time of Condition A, B, C, D, or E are not met when SSF Systems or Instrumentation are inoperable due to maintenance, the unit may continue to operate provided that the SSF is restored to OPERABLE status within 45 days from discovery of initial inoperability.

This Completion Time is modified by a Note that indicates that the SSF shall not be in Condition F for more than a total of 45 days in a calendar year. This includes the 7 day Completion Time that leads to entry into Condition F. For example, if the SSF ASW System is inoperable for 10 days, the 45 day special inoperability period is reduced to 35 days. If the SSF ASW System is inoperable for 6 days, Condition A applies and there is no reduction in the 45 day allowance. The limit of 45 days per calendar year minimizes the number and duration of extended outages associated with exceeding the 7 day Completion Time of a Condition.

This Completion Time is modified by a Note that indicates that the SSF shall not be in Condition F for more than a total of 45 days in a calendar year. This includes the 7 day Completion Time that leads to entry into Condition F. For example, if the SSF ASW System is inoperable for 10 days, the 45 day special inoperability period is reduced to 35 days. If the SSF ASW System is inoperable for 6 days, Condition A applies and there is no reduction in the 45 day allowance. The limit of 45 days per calendar year minimizes the number and duration of extended outages associated with exceeding the 7 day Completion Time of a Condition.

BASES (continued)

ACTIONS

~~The ACTIONS Table is modified by a Note which indicates that LCO 3.0.4 is not applicable. This is acceptable since a battery remains OPERABLE when one or more cells does not meet Category A or B limits but continues to meet Category C limits. Failure to meet Category C limits requires declaring the SSF battery inoperable.~~

A.1, A.2, and A.3

With one or more cells in a required SSF battery not within limits (i.e., Category A limits not met or Category B limits not met or Category A and B limits not met) but within the Category C limits specified in Table 3.10.2-1 in the accompanying LCO, the battery is degraded but there is still sufficient capacity to perform the intended function. Therefore, the affected battery is not required to be considered inoperable solely as a result of Category A or B limits not met, and continued operation is permitted for a limited period.

The pilot cell electrolyte level and float voltage are required to be verified to meet the Category C limits within 1 hour (Required Action A.1). This check will provide a quick indication of the status of the remainder of the battery cells. One hour provides time to inspect the electrolyte level and to confirm the float voltage of the pilot cells. One hour is considered a reasonable amount of time to perform the required verification.

Verification that the Category C limits are met (Required Action A.2) provides assurance that during the time needed to restore the parameters to the Category A and B limits, the battery will still be capable of performing its intended function. A period of 24 hours is allowed to complete the initial verification because specific gravity measurements must be obtained for each connected cell. Taking into consideration both the time required to perform the required verification and the assurance that the battery cell parameters are not severely degraded, this time is considered reasonable. The verification is repeated at 7 day intervals until the parameters are restored to Category A and B limits. This periodic verification is consistent with the normal Frequency of pilot cell Surveillances.

Continued operation is only permitted for 90 days before battery cell parameters must be restored to within Category A and B limits. With the consideration that, while battery capacity is degraded, sufficient capacity exists to perform the intended function and to allow time to fully restore the battery cell parameters to normal limits, this time is acceptable prior to declaring the battery inoperable.