UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 4, 2020

Mr. Steve Snider
Duke Energy
Vice President, Nuclear Engineering
526 South Church Street, EC-07H
Charlotte, NC 28202

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3, AND SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF AMENDMENTS REGARDING THE TECHNICAL SPECIFICATION REQUIREMENTS PERTAINING TO MODE CHANGE LIMITATIONS (EPID L-2020-LLA-0024)

Dear Mr. Snider:

The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued the enclosed Amendment No. 417 to Renewed Facility Operating License (RFOL) No. DPR-38, Amendment No. 419 to RFOL No. DPR-47, and Amendment No. 418 to RFOL No. DPR-55 for Oconee Nuclear Station (Oconee), Units 1, 2, and 3, respectively, and Amendment No. 180 to RFOL No. NPF-63 for the Shearon Harris Nuclear Power Plant (Harris), Unit 1. The amendments revise the Technical Specifications (TSs) in response to the application from Duke Energy dated February 6, 2020 (RA-20-0011).

The amendments revise the TS requirements for mode change limitations based on Technical Specifications Tasks Force (TSTF) Traveler No.359, Revision 9, "Increase Flexibility in Mode Restraints." 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. The NRC staff's safety evaluation of the amendments is enclosed.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's regular biweekly *Federal Register* notice.

If you have any questions, please contact me at (301) 415-3867 or by e-mail at Michael.Mahoney@nrc.gov.

Sincerely,

/RA/

Michael Mahoney, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270, 50-287, and 50-400

Enclosures:
1. Amendment No. 417 to DPR-38
2. Amendment No. 419 to DPR-47
3. Amendment No. 418 to DPR-55
4. Amendment No. 180 to NPF-63
5. Safety Evaluation

cc:

Mr. J. Ed Burchfield, Jr.
Vice President, Oconee Nuclear Station
Duke Energy Carolinas, LLC
7800 Rochester Highway
Seneca, SC 29672-0752

Ms. Kim Maza
Site Vice President
Shearon Harris Nuclear Power Plant
Mail Code NHP01
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New Hill, NC 27562-9300

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE ENERGY CAROLINAS, LLC

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 417
Renewed License No. DPR-38

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Oconee Nuclear Station, Unit 1 (the facility), Renewed Facility Operating License No. DPR-38, filed by Duke Energy Carolinas, LLC (the licensee), dated February 6, 2020, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-38 are hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 417, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael T. Markley

Digitally signed by Michael T. Markley
Date: 2020.09.04 10:51:15 -04'00'

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed License No. NPF-38
and the Technical Specifications

Date of Issuance: September 4, 2020

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE ENERGY CAROLINAS, LLC

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 419
Renewed License No. DPR-47

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Oconee Nuclear Station, Unit 2 (the facility), Renewed Facility Operating License No. DPR-47, filed by Duke Energy Carolinas, LLC (the licensee), dated February 6, 2020, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-47 are hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 419, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC shall operate the facility in accordance with the Technical Specifications.

4. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael T. Markley

Digitally signed by Michael T. Markley
Date: 2020.09.04 10:52:03 -04'00'

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed License No. NPF-47
and the Technical Specifications

Date of Issuance: September 4, 2020

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE ENERGY CAROLINAS, LLC

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 418
Renewed License No. DPR-55

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Oconee Nuclear Station, Unit 3 (the facility), Renewed Facility Operating License No. DPR-55, filed by Duke Energy Carolinas, LLC (the licensee), dated February 6, 2020, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-55 are hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 418, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC shall operate the facility in accordance with the Technical Specifications.

5. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael T. Markley

Digitally signed by Michael T. Markley
Date: 2020.09.04 10:52:38 -04'00'

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed License No. NPF-55
and the Technical Specifications

Date of Issuance: September 4, 2020

ATTACHMENT TO

AMENDMENT NO. 417 RENEWED FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 419 RENEWED FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 418 RENEWED FACILITY OPERATING LICENSE NO. DPR-55

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

DOCKET NOS. 50-269, 50-270, AND 50-287

Replace the following pages of the Renewed Facility Operating Licenses with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
License No. DPR-38, page 3	License No. DPR-38, page 3
License No. DPR-47, page 3	License No. DPR-47, page 3
License No. DPR-55, page 3	License No. DPR-55, page 3

Replace the following pages of the Appendix A, Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
3.0-1	3.0-1
3.0-2	3.0-2
3.0-3	3.0-3
3.0-5	3.0-5
3.3.8-1	3.3.8-1
3.4.11-1	3.4.11-1
3.4.15-1	3.4.15-1
3.5.3-1	3.5.3-1
3.7.5-1	3.7.5-1
3.7.10-1	3.7.10-1
3.8.1-2	3.8.1-2

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2568 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 417 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. This license is subject to the following antitrust conditions:

Applicant makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants, such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

Any particular bulk power supply transaction may afford greater benefits to one participant than to another. The benefits realized by a small system may be proportionately greater than those realized by a larger system. The relative benefits to be derived by the parties from a proposed transaction, however, should not be controlling upon a decision with respect to the desirability of participating in the transaction. Accordingly, applicant will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to applicant. There are net benefits in a transaction if applicant recovers the cost of the transaction (as defined in ¶1 (d) hereof) and there is no demonstrable net detriment to applicant arising from that transaction.

1. As used herein:

(a) “Bulk Power” means electric power and any attendant energy, supplied or made available at transmission or sub-transmission voltage by one electric system to another.

(b) “Neighboring Entity” means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2568 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 419 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. This license is subject to the following antitrust conditions:

Applicant makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants, such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

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A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2568 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 418 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. This license is subject to the following antitrust conditions:

Applicant makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants, such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

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(b) “Neighboring Entity” means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of

3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1

LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

LCO 3.0.2

Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

LCO 3.0.3

When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the unit shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in:

a. MODE 3 within 12 hours;

b. MODE 4 within 18 hours; and

c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4

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;

3.0 LCO APPLICABILITY

LCO 3.0.4 (continued)

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.

LCO 3.0.5

Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

LCO 3.0.6

When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required Actions associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 5.5.16, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

LCO 3.0.7

Test Exception LCO 3.1.8 allows specified Technical Specification (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with Test Exception LCOs is optional. When a Test Exception LCO is desired to be met but is not met, the ACTIONS of the Test Exception LCO shall be met. When a Test Exception LCO is not

3.0 LCO APPLICABILITY

LCO 3.0.7 (continued)

desired to be met, entry into a MODE or other specified condition in the Applicability shall be made in accordance with the other applicable Specifications.

LCO 3.0.8

When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

a. the snubbers not able to perform their associated support function(s) are associated with only one train of a multiple train system or are associated with a single train system and are able to perform their associated support function within 72 hours; or

b. the snubbers not able to perform their associated support function(s) are associated with more than one train of a multiple train system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

LCO 3.0.9

When one or more required barriers are unable to perform their related support function(s), any supported system LCO(s) are not required to be declared not met solely for this reason for up to 30 days provided that at least one train or subsystem of the supported system is OPERABLE and supported by barriers capable of providing their related support function(s), and risk is assessed and managed. This specification may be concurrently applied to more than one train or subsystem of a multiple train or subsystem supported system provided at least one train or subsystem of the supported system is OPERABLE and the barriers supporting each of these trains or subsystems provide their related support function(s) for different categories of initiating events.

If the required OPERABLE train or subsystem becomes inoperable while this specification is in use, it must be restored to OPERABLE status within 24 hours or the provisions of this specification cannot be applied to the trains or subsystems supported by the barriers that cannot perform their related support function(s).

At the end of the specified period, the required barriers must be able to perform their related support function(s) or the supported system LCO(s) shall be declared not met.

3.0 SR APPLICABILITY (continued)

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into 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.

3.3 INSTRUMENTATION

3.3.8 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.8 The PAM instrumentation for each Function in Table 3.3.8-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

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

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ----------NOTE---------- Not applicable to Functions 14, 18, 19, and 22. ---------- One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.6.	Immediately

(continued)

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.11 RCS Specific Activity

LCO 3.4.11 The RCS DOSE EQUIVALENT I-131 and DOSE EQUIVALENT XE-133 specific activity shall be within limits.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DOSE EQUIVALENT I-131 not within limit.	----------NOTE---------- LCO 3.0.4.c is applicable. ----------	
	A.1 Verify DOSE EQUIVALENT I-131 ≤ 50 µCi/gm.	Once per 4 hours
	AND	
	A.2 Restore DOSE EQUIVALENT I-131 to within limit.	48 hours
B. DOSE EQUIVALENT XE-133 not within limit.	----------NOTE---------- LCO 3.0.4.c is applicable. ----------	
	B.1 Restore DOSE EQUIVALENT XE-133 to within limit	48 hours

(continued)

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.15 RCS Leakage Detection Instrumentation

LCO 3.4.15 The following RCS leakage detection instrumentation shall be OPERABLE:

a. One containment normal sump level indication; and

b. One containment atmosphere radioactivity monitor (gaseous or particulate).

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

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Containment sump level indication inoperable.	A.1	----------NOTE---------- Not required until 12 hours after establishment of steady state operation. ---------- Perform SR 3.4.13.1.	Once per 24 hours
	AND		
	A.2	Restore containment sump level indication to OPERABLE status.	30 days

(continued)

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.3 Low Pressure Injection (LPI)

LCO 3.5.3 Two LPI trains shall be OPERABLE.

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

1. Only one LPI train is required to be OPERABLE in MODE 4.
2. In MODE 4, an LPI train may be considered OPERABLE during alignment, when aligned or when operating for decay heat removal (DHR) if capable of being manually realigned to the LPI mode of operation.
3. In MODES 1, 2, and 3, the LPI discharge header crossover valves inside containment shall be open.

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

ACTIONS

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

LCO 3.0.4.b is not applicable to ECCS DHR loops.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One LPI train inoperable in MODE 1, 2, or 3.	A.1 Restore LPI train to OPERABLE status.	7 days
B. One or more LPI discharge header crossover valve(s) inside containment not open in MODE 1, 2, or 3.	B.1 Open LPI discharge header crossover valve(s) inside containment.	7 days

(continued)

3.7 PLANT SYSTEMS

3.7.5 Emergency Feedwater (EFW) System

LCO 3.7.5 The EFW System shall be OPERABLE as follows:

a. Three EFW pumps shall be OPERABLE, and

b. Two EFW flow paths shall be OPERABLE.

----------NOTE----------
Only one motor driven emergency feedwater (MDEFW) pump and one EFW flow path are required to be OPERABLE in MODE 4.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

----------NOTE----------
LCO 3.0.4.b is not applicable when entering MODE 1.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One MDEFW pump inoperable in MODE 1, 2, or 3.	A.1 Restore MDEFW pump to OPERABLE status.	7 days AND 10 days from discovery of failure to meet the LCO
B. Turbine driven EFW pump inoperable in MODE 1, 2, or 3. OR One EFW flow path inoperable in MODE 1, 2, or 3.	B.1 Restore turbine driven EFW pump and EFW flow path to OPERABLE status.	72 hours AND 10 days from discovery of failure to meet the LCO

(continued)

3.7 PLANT SYSTEMS

3.7.10 Protected Service Water (PSW) System

LCO 3.7.10 The PSW system shall be OPERABLE

----------NOTE----------
Not applicable to Unit(s) until startup from a refueling outage after completion of PSW modifications and after all of the PSW system equipment installed has been tested.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. PSW system is inoperable.	A.1 Restore PSW system to OPERABLE status.	14 days
B. PSW system is inoperable. AND The Standby Shutdown Facility (SSF) is inoperable.	B.1 Restore PSW system to OPERABLE status.	7 days
C. ----------NOTE---------- Condition may only be entered when contingency measures have been implemented. --- Required Action and associated Completion Time of Condition A or B not met.	C.1 Restore PSW system to OPERABLE status.	30 days from discovery of initial inoperability.
D. Required Action and associated Completion Time of Condition C not met.	D.1 Be in MODE 3.	12 hours

(continued)

ACTIONS

----------NOTE----------
LCO 3.0.4.b is not applicable to KHUs.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Both required offsite sources and the overhead emergency power path inoperable due to inoperable unit startup transformer.	A.1	Perform SR 3.8.1.3.	1 hour if not performed in previous 12 hours
	AND		
	A.2	Align the emergency startup bus to share another unit's startup transformer.	12 hours
	AND		
	A.3.1	Restore unit startup transformer to OPERABLE status and normal startup bus alignment.	36 hours
	OR		
	A.3.2	Designate one unit, sharing the startup transformer, to be shutdown.	36 hours
B. Unit designated to be shutdown due to sharing a unit startup transformer.	B.1	Be in MODE 3.	12 hours
	AND		
	B.2	Be in MODE 5.	36 hours

(continued)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 180
Renewed License No. NPF-63

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duke Energy Progress, LLC (the licensee), dated February 6, 2020, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-63 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 180, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Michael T. Markley

Digitally signed by Michael T. Markley
Date: 2020.09.04 10:53:26 -04'00'

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed License NPF-63
and Technical Specifications

Date of Issuance: September 4, 2020

ATTACHMENT TO LICENSE AMENDMENT NO. 180

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE NO. NPF-63

DOCKET NO. 50-400

Replace the following page of the Renewed Facility Operating License with the revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change:

Remove	Insert
Page 4	Page 4

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
3/4 0-1	3/4 0-1
3/4 0-2	3/4 0-2
3/4 3-25	3/4 3-25
3/4 3-26	3/4 3-26
3/4 3-63	3/4 3-63
3/4 3-67	3/4 3-67
3/4 4-11	3/4 4-11
3/4 4-29	3/4 4-29
3/4 4-40	3/4 4-40
3/4 5-7	3/4 5-7
3/4 7-4	3/4 7-4
3/4 8-1	3/4 8-1

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below.

(1) Maximum Power Level

Duke Energy Progress, LLC, is authorized to operate the facility at reactor Core power levels not in excess of 2948 megawatts thermal (100 percent rated core power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 180, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

Duke Energy Progress, LLC. shall comply with the antitrust conditions delineated in Appendix C to this license.

(4) Initial Startup Test Program (Section 14)[1]

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(5) Steam Generator Tube Rupture (Section 15.6.3)

Prior to startup following the first refueling outage, Carolina Power & Light Company* shall submit for NRC review and receive approval if a steam generator tube rupture analysis, including the assumed operator actions, which demonstrates that the consequences of the design basis steam generator tube rupture event for the Shearon Harris Nuclear Power Plant are less than the acceptance criteria specified in the Standard Review Plan, NUREG-0800, at 15.6.3 Subparts II (1) and (2) for calculated doses from radiological releases. In preparing their analysis Carolina Power & Light Company* will not assume that operators will complete corrective actions within the first thirty minutes after a steam generator tube rupture.

[1]The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.
* On April 29, 2013, the name of “Carolina Power & Light Company” (CP&L) was changed to “Duke Energy Progress, Inc.” On August 1, 2015, the name “Duke Energy Progress, Inc.” was changed to “Duke Energy Progress, LLC.”

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required unless otherwise noted in the ACTION statement.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

a. At least HOT STANDBY within the next 6 hours,

b. At least HOT SHUTDOWN within the following 6 hours, and

c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

3.0.4 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.

3.0.5 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to 3.0.1 above for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

3.0.6 When one or more required barriers are unable to perform their related support function(s), any supported system LCO(s) are not required to be declared not met solely for this reason for up to 30 days provided that at least one train or subsystem of the supported system is OPERABLE and supported by barriers capable of providing their related support function(s), and risk is assessed and managed. This specification may be concurrently applied to more than one train or subsystem of a multiple train or subsystem

LIMITING CONDITION FOR OPERATION (Continued)

supported system provided at least one train or subsystem of the supported system is OPERABLE and the barriers supporting each of these trains or subsystems provide their related support function(s) for different categories of initiating events.

If the required OPERABLE train or subsystem becomes inoperable while this specification is in use, it must be restored to OPERABLE status within 24 hours or the provisions of this specification cannot be applied to the trains or subsystems supported by the barriers that cannot perform their related support function(s).

At the end of the specified period, the required barriers must be able to perform their related support function(s) or the supported system LCO(s) shall be declared not met.

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation, unless otherwise stated in an individual Surveillance Requirement. Failure to meet a Surveillance Requirement, whether such failure is experienced during the performance of the surveillance or between performances of the surveillance, shall be failure to meet the LCO. Failure to perform a surveillance within the specified surveillance interval shall be failure to meet the LCO except as provided in SR 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25% of the specified surveillance interval.

4.0.3 If it is discovered that a surveillance was not performed within its specified surveillance interval, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified surveillance interval, whichever is greater. This delay period is permitted to allow performance of the surveillance. The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed. A risk evaluation shall be performed for any surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable ACTION requirements must be met.

When the surveillance is performed within the delay period and the surveillance criteria are not met, the LCO must immediately be declared not met, and the applicable ACTION requirements must be met.

4.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified frequency, except as provided by SR 4.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into 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.

4.0.5 Deleted

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
8. Containment Spray Switch-over to Containment Sump (Continued)					
b. RWST--Low Low	See Item 7.b. above for all RWST--Low Low initiating functions and requirements.				
Coincident With Containment Spray	See Item 2 above for all Containment Spray initiating functions and requirements.				
9. Loss-of-Offsite Power					
a. 6.9 kV Emergency Bus--Undervoltage Primary	3/bus	2/bus	2/bus	1, 2, 3, 4	15a
b. 6.9 kV Emergency Bus--Undervoltage Secondary	3/bus	2/bus	2/bus	1, 2, 3, 4	15a
10. Engineered Safety Features Actuation System Interlocks					
a. Pressurizer Pressure,					
P-11	3	2	2	1, 2, 3	20
Not P-11	3	2	2	1, 2, 3	20
b. Low-Low T_{avg}, P-12	3	2	2	1, 2, 3	20
c. Reactor Trip, P-4	2	2	2	1, 2, 3	22
d. Steam Generator Water Level, P-14	See Item 5.b. above for all P-14 initiating functions and requirements.				

TABLE 3.3-3 (Continued)

TABLE NOTATIONS

#Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

**During CORE ALTERATIONS or movement of irradiated fuel in containment, refer to Specification 3.9.9.

***Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam line pressure is not blocked.

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

ACTION 15 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 15a - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the tripped condition within 1 hour. With less than the minimum channels OPERABLE, operation may proceed provided the minimum number of channels is restored within one hour, otherwise declare the affected diesel generator inoperable. When performing surveillance testing of either primary or secondary undervoltage relays, the redundant emergency bus and associated primary and secondary relays shall be OPERABLE.

ACTION 16 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition within 6 hours and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.

ACTION 17 - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the Containment Purge Makeup and Exhaust Isolation valves are maintained closed while in MODES 1, 2, 3 and 4 (refer to Specification 3.6.1.7). For MODE 6, refer to Specification 3.9.4.

ACTION 18 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

LIMITING CONDITION FOR OPERATION

3.3.3.5.a The Remote Shutdown System monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE.

3.3.3.5.b All transfer switches, Auxiliary Control Panel Controls and Auxiliary Transfer Panel Controls for the OPERABILITY of those components required by the SHNPP Safe Shutdown Analysis to (1) remove decay heat via auxiliary feedwater flow and steam generator power-operated relief valve flow from steam generators A and B, (2) control RCS inventory through the normal charging flow path, (3) control RCS pressure, (4) control reactivity, and (5) remove decay heat via the RHR system shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the number of OPERABLE remote shutdown monitoring channels less than the Minimum Channels OPERABLE as required by Table 3.3-9, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE remote shutdown monitoring channels less than the Total Number of Channels required by Table 3.3-9, restore the inoperable channels to OPERABLE status within 60 days or submit a Special Report in accordance with Specification 6.9.2 within 14 additional days.

c. With one or more inoperable Remote Shutdown System transfer switches, power, or control circuits required by 3.3.3.5.b, restore the inoperable switch(s)/circuit(s) to OPERABLE status within 7 days, or be in HOT STANDBY within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.3.3.5.1 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

4.3.3.5.2 Each Remote Shutdown System transfer switch, power and control circuit and control switch required by 3.3.3.5.b, shall be demonstrated OPERABLE at the frequency specified in the Surveillance Frequency Control Program.

LIMITING CONDITION FOR OPERATION

least HOT STANDBY in the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

* The alternate method shall be a check of safety valve piping temperatures and evaluation to determine position.

The alternate method shall be the initiation of the backup method as required by Specification 6.8.4.d.

SURVEILLANCE REQUIREMENTS

4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-7.

3/4.4.4 RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.4 All power-operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3

ACTION:

a. With one or more PORV(s) inoperable, because of excessive seat leakage, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) with power maintained to the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With one or more PORV(s) inoperable due to causes other than excessive seat leakage, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) and remove power from the block valve(s), and

   1. With only one safety grade PORV OPERABLE, restore at least a total of two safety grade PORVs to OPERABLE status within the following 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours, or

   2. With no safety grade PORVs OPERABLE, restore at least one safety grade PORV to OPERABLE status within 1 hour and follow ACTION b.1, above, with the time requirement of that ACTION statement based on the time of initial loss of the remaining inoperable safety grade PORV or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With one or more block valve(s) inoperable, within 1 hour: (1) restore the block valve(s) to OPERABLE status, or close the block valve(s) and remove power from the block valve(s), or close the PORV and remove power from its associated solenoid valve; and (2) apply ACTION b.1 or b.2, above, as appropriate, for the isolated PORV(s).

3/4.4.8 SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

3.4.8 The specific activity of the reactor coolant shall be limited to:

a. Less than or equal to 1 microCurie per gram DOSE EQUIVALENT I-131, and

b. Less than or equal to 100/$\bar{E}$ microCuries per gram of gross radioactivity.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTION:

MODES 1, 2 and 3*:

a. With the specific activity of the reactor coolant greater than 1 microCurie per gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or exceeding 60.0 microCurie per gram DOSE EQUIVALENT I-131, be in at least HOT STANDBY with T_{avg} less than 500°F within 6 hours. LCO 3.0.4.c is applicable to DOSE EQUIVALENT I-131.

b. With the specific activity of the reactor coolant greater than 100/$\bar{E}$ microCuries per gram, be in at least HOT STANDBY with T_{avg} less than 500°F within 6 hours.

MODES 1, 2, 3, 4, and 5:

With the specific activity of the reactor coolant greater than 1 microcurie per gram DOSE EQUIVALENT I-131 or greater than 100/$\bar{E}$ microCuries per gram, perform the sampling and analysis requirements of Item 4.a) of Table 4.4-4 until the specific activity of the reactor coolant is restored to within its limits.

SURVEILLANCE REQUIREMENTS

4.4.8 The specific activity of the reactor coolant shall be determined to be within the limits by performance of the sampling and analysis program of Table 4.4-4.

* With T_{avg} greater than or equal to 500°F.

OVERPRESSURE PROTECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.9.4 At least one of the following Overpressure Protection Systems shall be OPERABLE:

a. The Reactor Coolant System (RCS) depressurized with an RCS vent of greater than or equal to 2.9 square inches, or

* b. Two power-operated relief valves (PORVs) with setpoints which do not exceed the limits established in Figure 3.4-4.

APPLICABILITY: MODE 4 when the temperature of any RCS cold leg is less than or equal to 325°F, MODE 5 and MODE 6 with the reactor vessel head on.

ACTION:

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

LCO 3.0.4.b is not applicable when entering MODE 4.

---

a. With one PORV inoperable in Mode 4, restore the inoperable PORV to OPERABLE status within 7 days or depressurize and vent the RCS through at least a 2.9 square inch vent within the next 8 hours.

b. With one PORV inoperable in MODES 5 or 6, either (1) restore the inoperable PORV to OPERABLE status within 24 hours, or (2) complete depressurization and venting of the RCS through at least a 2.9 square inch vent within the next 8 hours.

c. With both PORVs inoperable, depressurize and vent the RCS through at least a 2.9 square inch vent within 8 hours.

SURVEILLANCE REQUIREMENTS

4.4.9.4.1 Each PORV shall be demonstrated OPERABLE by:

a. Performance of an ANALOG CHANNEL OPERATIONAL TEST on the PORV actuation channel, but excluding valve operation, within 31 days prior to

* Credit may only be taken for the setpoints when the RCS cold leg temperature ≥ 90°F.

3/4.5.3 ECCS SUBSYSTEMS - T_{avg} LESS THAN 350°F

LIMITING CONDITION FOR OPERATION

3.5.3 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

a. One OPERABLE charging/safety injection pump,*

b. One OPERABLE RHR heat exchanger,

c. One OPERABLE RHR pump, and

d. An OPERABLE flow path capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODE 4.

ACTION:

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

LCO 3.0.4.b is not applicable to ECCS high head subsystem.

---

a. With no ECCS subsystem OPERABLE because of the inoperability of either the charging/safety injection pump or the flow path from the refueling water storage tank, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 24 hours.

b. With no ECCS subsystem OPERABLE because of the inoperability of either the residual heat removal heat exchanger or RHR pump, restore at least one ECCS subsystem to OPERABLE status or maintain the Reactor Coolant System T_{avg} less than 350°F by use of alternate heat removal methods.

* A maximum of one charging/safety injection pump shall be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 325°F.

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. Two motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency buses, and

b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

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

LCO 3.0.4.b is not applicable.

---

a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With two auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible. (NOTE: LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one AFW train is restored to OPERABLE status. Following restoration of one AFW train, all applicable LCOs apply based on the time the LCOs initially occurred.)

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. At the frequency specified in the Surveillance Frequency Control Program by:

1. Demonstrating that each motor-driven pump satisfies performance requirements by either:

a) Verifying each pump develops a differential pressure that (when temperature - compensated to 70°F) is greater than or equal to 1514 psid at a recirculation flow of greater than or equal to 50 gpm (25 KPPH), or

b) Verifying each pump develops a differential pressure that (when temperature - compensated to 70°F) is greater than or equal to 1259 psid at a flow rate of greater than or equal to 430 gpm (215 KPPH).

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Two separate and independent diesel generators, each with:

1. A separate day tank containing a minimum of 1457 gallons of fuel,

2. A separate main fuel oil storage tank containing a minimum of 100,000 gallons of fuel, and

3. A separate fuel oil transfer pump.

c. Automatic Load Sequencers for Train A and Train B.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

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

LCO 3.0.4.b is not applicable to diesel generators.

---

a. With one offsite circuit of 3.8.1.1.a inoperable:

1. Perform Surveillance Requirement 4.8.1.1.1.a within 1 hour and once per 8 hours thereafter; and

2. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and

3. Verify required feature(s) powered from the OPERABLE offsite A.C. source are OPERABLE. If required feature(s) powered from the OPERABLE offsite circuit are discovered to be inoperable at any time while in this condition, restore the required feature(s) to OPERABLE status within 24 hours from discovery of inoperable required feature(s) or declare the redundant required feature(s) powered from the inoperable A.C. source as inoperable.

b. With one diesel generator of 3.8.1.1.b inoperable:

1. Perform Surveillance Requirement 4.8.1.1.1.a within 1 hour and once per 8 hours thereafter; and

*2. Within 24 hours, determine the OPERABLE diesel generator is not inoperable due to a common cause failure or perform Surveillance Requirement 4.8.1.1.2.a.4#; and

---

* This ACTION is required to be completed regardless of when the inoperable EDG is restored to OPERABILITY.

\# Activities that normally support testing pursuant to 4.8.1.1.2.a.4, which would render the diesel inoperable (e.g., air roll), shall not be performed for testing required by this ACTION statement.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION FOR

AMENDMENT NO. 417 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 419 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 418 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-55

DUKE ENERGY CAROLINAS, LLC

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

DOCKET NOS. 50-269, 50-270, AND 50-287

AND

AMENDMENT NO. 180 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-63

DUKE ENERGY PROGRESS, LLC

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

1.0 INTRODUCTION

By application dated February 6, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20041F551), Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC (Duke Energy or the licensee), requested changes to the Technical Specifications (TS) for Oconee Nuclear Station (Oconee), Units 1, 2, and 3, and Shearon Harris Nuclear Power Plant (Harris), Unit 1.

The proposed changes would modify TS requirements for mode change limitations in Limiting Condition for Operation (LCO) 3.0.4 and Surveillance Requirement (SR) 4.0.4 to adopt the provisions of Industry/Technical Specification Task Force (TSTF) traveler 359, "Increase Flexibility in Mode Restraints." 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 Improvement Process (CLIIP).

The TSTF-359, is one of the industry's initiatives under the risk-informed TS program. These initiatives are intended to maintain or improve safety while reducing unnecessary burden and to make TS requirements consistent with the U. S. Nuclear Regulatory Commission's (NRC's or Commission's) other risk-informed regulatory requirements, in particular, the Maintenance Rule.

The current Standard Technical Specifications (STS, NUREG-1430 through 1434) specify that a nuclear power plant cannot go to higher modes of operation (i.e., move toward power operation) unless all TS systems, normally required for the higher mode, are operable. This limitation is included (with several exceptions for some plants) in LCO 3.0.4 and SR 3.0.4. LCO 3.0.4 and SR 3.0.4 in the STS currently state, in part, that when an LCO or SR is not met, "entry into a MODE or other specified condition in the applicability shall not be made except 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." The industry believes that this requirement is unnecessarily restrictive and can unduly delay plant startup while considerable resources are being used to resolve startup issues that are risk insignificant or low risk. A maintenance activity that takes longer than planned can delay a mode change and adversely impact a utility's orderly plant startup and return to power operation. The objective of the proposed change is to provide additional operational flexibility without compromising plant safety.

The licensee proposed the following 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).

a. The Oconee and Harris TSs utilize different numbering and titles than NUREG-1430, "Standard Technical Specifications – Babcock and Wilcox Plants" (ADAMS Accession No. ML12100A177), and NUREG-1431, "Standard Technical Specifications – Westinghouse Plants" (ADAMS Accession No. ML12100A222), respectively, on which TSTF-359 was based. Additionally, the Oconee and Harris TSs do not contain all of the TS that were revised by TSTF-359. These differences are administrative and do not affect the applicability of TSTF-359 to the Oconee and Harris TSs.

b. Harris has not converted to the Improved Technical Specifications (ITS, NUREG-1431). As a result, the Harris individual SRs do not stipulate the specific time frames and conditions necessary for meeting the SRs to allow entry into the mode or condition of applicability without having performed the SR. Consequently, the existing exceptions to SR 4.0.4 will be retained in the Harris TSs, and the proposed TS Bases for SR 4.0.4 will not include the paragraph below that is included in TSTF-359 for the TS Bases of ITS SR 3.0.4.

c. TSTF-359 and the model safety evaluation refer to Regulatory Guide (RG) 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." However, RG 1.182 was withdrawn in November 2012 after being determined to be redundant due to the inclusion of its information in RG 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" (ADAMS Accession No. ML18220B281). As such, the proposed TS Bases for Oconee and Harris LCO 3.0.4 refer to RG 1.160 rather than RG 1.182, an administrative variation that does not affect the applicability of TSTF-359 to the Oconee and Harris TSs.

The proposed changes to LCO 3.0.4 and SR 4.0.4 would allow, for systems and components, mode changes into a TS condition that has a specific required action and completion time. The licensee will utilize the LCO 3.0.4 and SR 4.0.4 allowances only when they determine that there is a high likelihood that the LCO will be satisfied within the LCO completion time (CT), after the mode change. In addition, the LCO 3.0.4 and SR 4.0.4 allowances can be applied to values

and parameters in specifications when explicitly stated in the TS (non-system/component TS such as: Reactor Coolant System Specific Activity). These changes are in addition to the current mode change allowance when a required action has an indefinite completion time. The LCO 3.0.4 and SR 4.0.4 mode change allowances are not permitted for the systems and components (termed "higher risk") listed in Section 3.1.1, "Identification of Risk-Important TS Systems and Components," for the modes specified. Two examples are: (1) Westinghouse plants cannot transition from Mode 5 to Mode 4 without a High Head Safety Injection System train operable; and, (2) Westinghouse plants cannot transition up into any mode with an inoperable required emergency diesel generator.

2.0 REGULATORY EVALUATION

2.1 Description of Changes

Proposed Change to Harris TS LCO 3.0.4 and SR 3.0.4

Currently, Harris LCO 3.0.4 does not allow entrance into a higher mode (or other specified condition) in the applicability when an LCO is not met, except when the associated Actions to be entered permit continued operation in that mode or condition indefinitely, or a specific exception is granted. Similarly, when an LCO's surveillances have not been met within their specified frequency, entry into a higher mode (or other specified condition) is not allowed by SR 4.0.4.

The current Harris TS LCO 3.0.4 reads:

> Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements or that are part of a shutdown of the unit. Exceptions to these requirements are stated in the individual specifications.

The licensee's proposed revision to Harris LCO 3.0.4 will read:

> 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 HNP current TS SR 4.0.4 reads:

Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation has been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

The licensee's proposed revision to Harris TS SR 4.0.4 will conform to the proposed changes to LCO 3.0.4 and read:

Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified frequency, except as provided by SR 4.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into 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.

Additional Proposed Changes to Harris TS

The licensee proposed to make the following additional changes, consistent with TSTF-359:

Delete the current '*' from Action 15a in Table 3.3-3 for Functional Unit 9, Loss-of-Offsite Power, and delete the corresponding note, which provides an exception to LCO 3.0.4.

Delete current LCO 3.3.3.5, Action d, which provides an exception to LCO 3.0.4.

Delete current LCO 3.3.3.6, Action f, which provides an exception to LCO 3.0.4.

Delete current LCO 3.4.4. Action d, which provides an exception to LCO 3.0.4.

Delete the current the exception to LCO 3.0.4 in LCO 3.4.8, Action a, the exception to LCO 3.0.4.

Add a new note in LCO 3.4.8 that LCO 3.0.4.c is applicable to Dose Equivalent I-131 [Iodine-131].

Delete current LCO 3.4.9.4, Action e [Action d, see note below], which provides an exception to LCO 3.0.4.

Note that License Amendment 177, issued on June 29, 2020 (ADAMS Accession No. ML20099F505) and corrected by letter dated July 9, 2020 (ADAMS Accession No. ML20183A408) deleted LCO 3.4.9.4, Action d and renamed the remaining Action e (as referenced in the licensee's February 6, 2020 license amendment request) to Action d.

Add new note to LCO 3.4.9.4 that LCO 3.0.4.b is not applicable when entering Mode 4.

Add a new note to LCO 3.5.3 that LCO 3.0.4.b is not applicable to ECCS [Emergency Core Cooling System] high head Subsystem.

Add a new note to LCO 3.7.1.2 that LCO 3.0.4.b is not applicable.

Proposed Change to Oconee LCO 3.0.4 and SR 3.0.4

Currently, Oconee LCO 3.0.4 does not allow entrance into a higher mode (or other specified condition) in the applicability when an LCO is not met, except when the associated Actions to be entered permit continued operation in that mode or condition indefinitely, or a specific exception is granted. Similarly, when an LCO's surveillances have not been met within their specified frequency, entry into a higher mode (or other specified condition) is not allowed by SR 3.0.4.

The current Oconee TS LCO 3.0.4 reads:

> When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except 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. 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 licensee's proposed revision to Oconee TS LCO 3.0.4 will read:

> 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 Oconee current TS SR 3.0.4 reads:

> Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into 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.
>
> SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4.

The licensee's proposed revision to Oconee SR 3.0.4 will conform to the proposed changes to LCO 3.0.4 and read:

> Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.
>
> This provision shall not prevent entry into 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.

Additional Proposed Changes to Oconee TS

The licensee proposed to make the following additional changes, consistent with TSTF-359:

Delete current Note 1 of TS LCO 3.3.8, which provides an exception to LCO 3.0.4.

Delete the current exception to LCO 3.0.4 from TS LCO 3.4.11, Actions A and B, of TS LCO 3.4.11.

Revise the current notes in of TS LCO 3.4.11, Actions A and B to reflect that LCO 3.0.4.c is applicable to Dose Equivalent I-131 and Dose Equivalent Xe-133 [Xenon-133]

Delete the current note of LCO 3.4.15 which provides an exception to LCO 3.0.4.

Add a new note to LCO 3.5.3 that LCO 3.0.4.b is not applicable.

Add a new note to LCO 3.7.5 that LCO 3.0.4.b is not applicable when entering Mode 1.

Delete the current note of LCO 3.7.10 which provides an exception to LCO 3.0.4.

Delete the current note of LCO 3.8.1 which provides an exception to LCO 3.0.4 when both standby buses are energized to comply with Required Actions.

Add a new note to LCO 3.8.1 that LCO 3.0.4.b is not applicable to the KHUs (Keowee Hydro Units).

The proposed TS LCO 3.0.4.a retains the current allowance for when the required actions allow indefinite operation. The proposed TS LCO 3.0.4.b allows entering modes or other specified conditions in the applicability except when higher-risk systems and components, for the mode being entered, are inoperable. When applying TS LCO 3.0.4.b, the decision for entering a higher mode or condition in the Applicability of the LCO will be made by plant management after the required risk assessment has been performed and requisite risk management actions established, through the program established to implement 10 CFR 50.65(a)(4). Entry into the modes or other specified conditions in the Applicability of the TS shall be for no more than the duration of the applicable required actions completion time, or until the LCO is met. The licensee has proposed to remove current notes in individual specifications that prohibit mode changes which are now encompassed by LCO 3.0.4.b. Similarly, the licensee has proposed to add notes that prohibit mode changes under LCO 3.0.4.b for higher-risk systems and components. The proposed LCO 3.0.4.b allowance can involve multiple components in a single LCO or in multiple LCOs; however, use of the LCO 3.0.4.b provisions are always contingent upon completion of a Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 65(a)(4)-based risk assessment.

The notes limiting the applicability, to Modes 1, 2, and 3 of the current TS LCO 3.0.4 and SR 4.0.4 are holdovers from the existing Standard Technical Specifications (STS). The notes limiting the applicability of LCO 3.0.4 and SR 4.0.4 are no longer needed and are removed consistent with approved TSTF-359, Revision 9. Consideration was originally given to adding notes to various TS, as defined by the tables of higher-risk systems (listed in Section 3.1.1. of this safety evaluation), precluding entry into Modes 4 and 5 for pressurized-water reactors (PWRs). However, it was determined that the addition of notes in these cases is unnecessary because the action statements require immediate completion times, which means that entry into the Mode or other specified condition in the Applicability is not allowed and the notes would be superfluous.

LCO 3.0.4 allowances related to values and parameters of TS are not typically addressed by LCO 3.0.4.b risk assessments and are therefore addressed by a new LCO 3.0.4.c. LCO 3.0.4.c refers to allowances already in the TS and annotated in the individual TS. LCO 3.0.4.c also allows for entry into the modes or other specified conditions in the Applicability for TS for no more than the duration of the applicable required actions completion time or until the LCO is met or the unit is not within the applicability of the TS.

2.2 Regulatory Review

In 10 CFR 50.36, the Commission established its regulatory requirements related to the content of TS. Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCO); (3) surveillance requirements (SR); (4) design features; and (5) administrative controls. The rule does not specify the particular requirements to be included in a plant's TS.

As stated in 10 CFR 50.36(c)(2)(i), the "Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications ..."

By convention, the LCOs are contained in Sections 3.1 through 3.10 of the STS and 3/4.1 through 3/4.12 for Harris. TS Section 3/4.0, on "LCO and SR Applicability," provides details or

ground rules for complying with the LCOs. LCO 3.0.4 and SR 4.0.4 address requirements for LCO compliance when transitioning between modes.

The TSs have taken advantage of risk technology as experience and capability have increased. Since the mid-1980's, the NRC has been reviewing and granting improvements to TSs that are based, in part, on probabilistic risk assessment (PRA) insights. In its final policy statement on TS improvements of July 22, 1993, the Commission stated that it expects that licensees will utilize any plant-specific PRA or risk survey in preparing their TS-related submittals. In evaluating these submittals, the NRC staff applies the guidance in Regulatory Guide (RG) 1.174, Revision 3, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," (ADAMS Accession No. ML17317A256) and in RG 1.177, Revision 1, "An Approach for Plant-Specific, Risk-Informed Decision making: Technical Specifications" (ADAMS Accession No. ML100910008). The NRC staff has appropriately adapted this guidance to assess the acceptability of upward mode changes with equipment inoperable. This review had the following objectives:

- To ensure that the plant risk does not increase unacceptably during the actual implementation of the proposed change (e.g., when the plant enters a higher operational condition while an LCO is not met). This risk increase is referred to as "temporary."

- To compare and assess the risk impact of the proposed change to the acceptance guidelines of the Commission's Safety Goal Policy Statement, as documented in RG 1.174. The risk impact, which is measured by the average yearly risk increase associated with the change, aims at minimizing the "cumulative" risk associated with the proposed change so that the plant's average baseline risk is maintained within a minimal range.

- To assess the licensee's ability to identify risk-significant configurations resulting from maintenance or other operational activities and take appropriate compensatory measures to avoid such configurations.

The NRC staff reviewed licensee reliance on 10 CFR 50.65(a)(4) for the non-higher-risk systems and components, and related guidance to assess and manage the risk of upward mode changes. The Commission has found that compliance with the industry guidance for implementation of 10 CFR 50.65(a)(4), as endorsed by RG 1.160, and mandated by LCO 3.0.4, SR 4.0.4, and SR 4.0.3, satisfies the configuration risk management objectives of RG 1.177 for TS surveillance interval and completion time extensions. The licensee's reliance on 10 CFR 50.65(a)(4) processes that are consistent with the provisions of the NRC-endorsed industry guidance was also found to be adequate for managing the risk of missed surveillances as described in the *Federal Register* on September 28, 2001 (66 FR 49714).

The NRC staff review also had the objective of ensuring that existing NRC inspection programs have the necessary controls in place to allow the NRC staff to oversee the implementation of the proposed change, reliance on 10 CFR 50.65(a)(4) processes or programs, and the ability to adequately assess the licensee's performance associated with risk assessments. The review encompassed inspection procedures (i.e., NRC Inspection Procedure 62709 dated 12/28/00, "Configuration Risk Assessment and Risk Management Process," and NRC Inspection Procedure 71111.13 dated 01/17/02, "Maintenance Risk Assessments and Emergent Work Control"), the significance determination process (SDP) (i.e., "Maintenance Risk Assessment and Risk Management Significance Determination Process"), enforcement guidance (i.e.,

Enforcement Manual Section 7.11, “Actions Involving the Maintenance Rule”), and the associated reactor oversight process (ROP).

3.0 TECHNICAL EVALUATION

During the development of the current STS, improvements were made to LCO 3.0.4, such as clarifying its applicability with respect to plant shutdowns, Cold Shutdown mode and Refueling mode. In addition, during the STS development, almost all the LCO with completion times greater than or equal to 30 days, and many LCOs with completion times greater than or equal to 7 days were given individual LCO 3.0.4 exceptions. During some conversions to the STS, individual plants provided acceptable justifications for other LCO 3.0.4 exceptions. All of these specific LCO 3.0.4 exceptions allow entry into a mode or other specified condition in the TS applicability while relying on the TS required actions and associated completion times. The changes proposed by Harris and Oconee, would provide standardization and consistency to the use and application of LCO 3.0.4, both internal to and between each of the specifications, as well as with the STS. This proposed change will also ensure consistency through the utilization of appropriate levels of risk assessment of plant configurations for application of LCO 3.0.4. However, nothing in this safety evaluation should be interpreted as encouraging upward mode transition with inoperable equipment. Good practice should dictate that such transitions should normally be initiated only when all required equipment is operable and that mode transition with inoperable equipment should be the exception rather than the rule.

The current LCO 3.0.4.a allowances are retained in the proposal and do not represent a change in risk from the current situation. The LCO 3.0.4.b allowances apply to systems and components and require a risk assessment prior to utilization to ensure an acceptable level of safety is maintained. The LCO 3.0.4.c allowances apply to parameters and values which have been previously approved by the NRC in a plant’s specific TSs. The licensee provided in the TS Bases, a discussion and list of each NRC-approved LCO 3.0.4.c specific value and parameter allowance. The TS Bases of LCO 3.0.4 are revised to explain the new allowances and their utilization.

In its review of TSTF-359, the NRC staff did a generic qualitative assessment of the risk impact of the proposed change in LCO 3.0.4.b allowances by evaluating how licensee implementation of the proposed risk-informed approach is expected to meet the requirements of the applicable RGs. The NRC staff referred to the guidance provided in RG 1.174 and in RG 1.177. RG 1.177 provides the NRC staff’s recommendations on using risk information to assess the impact of proposed changes to nuclear power plant TSs on the risk associated with plant operation. Although RG 1.177 does not specifically address the type of generic change in this proposal, the NRC staff considered the approach documented in RG 1.177 in evaluating the risk information provided in support the proposed changes in TS LCO 3.0.4.

The NRC staff’s evaluation of how the implementation of the proposed risk-informed approach, used to justify LCO 3.0.4.b allowances, agrees with the objectives of the guidance outlined in RG 1.177 is discussed in Section 3.1. Oversight of the risk-informed approach associated with the LCO 3.0.4.b allowances is discussed in Section 3.2 of this safety evaluation.

3.1 Evaluation of Risk Management

Both the temporary and cumulative risk of the proposed change is adequately limited. The temporary risk is limited by the exclusion of higher-risk systems and components, and completion time limits contained in the TSs (Section 3.1.1 of this safety evaluation). The

cumulative risk is limited by the temporary risk limitations and by the expected low frequency of the proposed operational condition changes with inoperable equipment (Section 3.1.2 of this safety evaluation). Adequate NRC oversight of the licensee's ability to use the LCO 3.0.4.b provisions under appropriate circumstances, i.e., to identify risk-significant configurations when entering a higher mode or condition in the applicability of an LCO (Section 3.1.3 of this safety evaluation) is provided by NRC inspection of the licensee's implementation of 10 CFR 50.65(a)(4) as applied to the proposed change.

3.1.1 Temporary Risk Increases

The RG 1.177 proposes the incremental conditional core damage probability (ICCDP) and the incremental conditional large early release probability (ICLERP) as appropriate measures of the increase in probability of core damage and large early release, respectively, during the period of implementation of a proposed TS change. In addition, RG 1.177 stresses the need to preclude potentially high-risk configurations introduced by the proposed change. The ICCDP associated with any specified plant condition, such as the condition introduced by entering a higher mode with plant equipment inoperable, is expressed by the following equation:

$$ICCDP = \Delta R\ d = (R_1 - R_0)\ d \qquad (1)$$

where:

ΔR = the conditional risk increase, in terms of core damage frequency (CDF), caused by the specified condition

d = the duration of the specified plant condition

R_1 = the plant CDF with the specified condition permanently present

R_0 = the plant CDF without the specified condition

The same expression can be used for ICLERP by substituting the measure of risk, i.e., large early release frequency (LERF) for CDF. The magnitude of the ICCDP and ICLERP values associated with plant conditions applicable to LCO 3.0.4.b allowances can be managed by controlling the conditional risk increase, ΔR (in terms of both CDF and LERF) and the duration, d, of such conditions. The following sections discuss how the key elements of the proposed risk-informed approach, used to justify LCO 3.0.4.b allowances, are expected to limit ΔR and d and, thus, prevent any significant temporary risk increases.

Identification of Risk-Important TS Systems and Components

A major element that limits the risk of the proposed mode change flexibility is the exclusion of certain systems and associated LCO for the mode change allowance. TSs allow operation in Mode 1 (Power Operation) with specified levels of inoperability for specified times. This provides a benchmark of currently acceptable risk against which to measure any incremental risk inherent in the proposed LCO 3.0.4.b. If a system inoperability accrues risk at a higher rate in one or more of the transition operational conditions than it would in Mode 1, then an upward transition into that mode should not be allowed without demonstration of a high degree of experience and sophistication in risk management. However, the risk management process evaluated in Section 3.1.3 (of this safety evaluation), is adequate if higher-risk systems/components are excluded from the scope of LCO 3.0.4.b.

The importance of most TS systems in mitigating accidents increases as power increases. However, some TS systems are relatively more important during lower power and shutdown operations, because:

- Certain events are peculiar to modes of plant operation other than power operation,
- Certain events are more probable at modes of plant operation other than power operation, and
- Some modes of plant operation have less mitigation system capability than power operation.

The risk information submitted in support of the proposed changes to TS LCO 3.0.4 and SR 4.0.4 in TSTF-359 included qualitative risk assessments performed by each owners group to identify higher risk systems and components at the various modes of operation, including transitions between modes, as the plant moves upward from the refueling mode of operation toward power operation. The owners groups' generic qualitative risk assessments are included as attachments to TSTF-359, Revision 9 (ADAMS Accession No. ML031190607) . Each of the owners groups' generic qualitative risk assessments discuss the technical approach used and the systems/components subsequently determined to be of higher risk significance; the systems/components not to be granted the TS LCO 3.0.4 allowances for the various operational conditions are listed.

The owners groups' generic qualitative risk assessments are:

- "WOG [Westinghouse Owners Group] Qualitative Risk Assessment Supporting Increased Flexibility in MODE Restraints,"
- "B&W [Babcock & Wilcox] owners group Qualitative Risk Assessment for Increased Flexibility in MODE Restraints," Framatome Technologies BAW-2383

Following interactions with the NRC staff, all owners groups used the same systematic approach in their qualitative risk assessments to identify the higher-risk systems in the STS, consisting of the following steps:

- Identification of plant conditions (i.e., plant parameters and availability of key mitigation systems) associated with changes in plant modes while returning to power,
- Identification of key activities that have the potential to impact risk and which are in progress during transitions between modes while the plant is returning to power,
- Identification of applicable accident initiating events for each mode or other specified condition in the applicability, and
- Identification of the higher-risk systems and components by combining the information in the first three steps (qualitative risk assessment).

The risk assessments properly used the results and insights from previous deterministic and probabilistic studies to systematically search for plant conditions in which certain key plant

components are more important in mitigating accidents than during operation at power (Mode 1). This search was systematic, taking the following factors into account for the various stages of returning the plant to power:

- The status of accident mitigation and normally operating systems,
- The status of key plant parameters such as reactor coolant system pressure,
- The key activities that are in progress during transitions between modes which have the potential to impact risk (e.g., the transfer from auxiliary to main feedwater at some PWR plants when Mode 1 is entered),
- The applicable accident initiating events for each mode of plant operation, and
- Design and operational differences among plants or groups of plants.

The following systems and components were identified as higher-risk systems and components, when the plant is entering a new mode.

Westinghouse Owners Group (WOG) Plants

System	Entering Mode
Emergency Diesel Generators	4, 3, 2, 1
Auxiliary Feedwater (AFW) System (for plants depending on AFW for startup)	4, 3, 2, 1
High Head Safety Injection	4
Low-Temperature Overpressure Protection (LTOP) System	4

Babcock & Wilcox Owners Group (B&WOG) Plants

System	Entering Mode
Emergency Diesel Generators (Hydro-Electric Units for Oconee)	4, 3, 2, 1
Emergency Core Cooling System (ECCS) Decay Heat Removal	4
Emergency Feedwater	1

If a licensee identifies a higher-risk system for only some of the modes of applicability, the TSs for that system would be modified by a note that reads, for example, "LCO 3.0.4(b) is not applicable when entering MODE 1 from MODE 2." Systems identified as higher risk for Mode 4 and 5 for boiling water reactors (BWRs), are also excluded from transitioning up to the mode of higher risk, and as previously discussed, notes for those transitions are superfluous. In addition,

operational condition transitions for Modes 5 and 6 for PWRs, will be addressed by administrative controls.

The NRC staff's review of the Owners Group's qualitative risk assessments finds that they are of adequate quality to support the application (i.e., they identify the higher-risk systems and components) associated with entering higher modes of plant operation with equipment inoperable while returning to power.

The licensee has adopted the TSTF-359 wording for Harris TS LCO 3.0.4 and SR 4.0.4 and Oconee TS LCO 3.0.4 and SR 3.0.4. Existing notes stating that "LCO 3.0.4 is not applicable" have been deleted from various TS LCOs as described in TSTF-359, and the supporting documentation. LCO 3.0.4.c has been referenced appropriately for the TS defining limits on parameters and values. The licensee has, consistent with the above tables, added notes to the appropriate TS to state that the revised TS LCO 3.0.4.b, allowing mode changes with inoperable equipment, is not applicable for the previously mentioned higher-risk systems.

Limited Time in TS Required Actions

Any temporary risk increase will be limited by, among other factors, duration constraints imposed by the TS completion times of the inoperable systems. For the systems and components that are not higher risk, any temporary risk increase associated with the proposed allowance will be smaller than what is considered acceptable when the same systems and components are inoperable at power. This is due to the fact that completion times associated with the majority of TS systems and components were developed for power operation and pose a smaller plant risk for action statement entries initiated or occurring at lower modes of operation as compared to power operation.

The TS LCO 3.0.4.b allowance will be used only when the licensee determines that there is a high likelihood that the LCO will be satisfied following the mode change. This will minimize the likelihood of additional temporary risk increases associated with the need to exit a mode due to failure to restore the unavailable equipment within the completion time (CT). In most cases, licensees will enter into a higher mode with the intent to move up to Mode 1 (power operation).

As discussed in Section 3.2 (of this safety evaluation), the revised ROP monitors unplanned power changes as a performance indicator. The ROP, thus, discourages licensees from entering a mode or other specified condition in the applicability of an LCO, and moving up in power, when there is a likelihood that the mode would have to be subsequently exited due to failure to restore the unavailable equipment within the CT. Another disincentive for licensees to enter a higher mode when an LCO is not met is related to reporting requirements. It clearly states in 10 CFR 50.72 and 50.73 that a report is required when a nuclear plant shutdown or mode change is required by TSs. The NRC's oversight program will provide the framework for inspectors and other staff to follow the history at a specific plant of entering higher modes while an LCO is not met and use such information in assessing the licensee's actions and performance.

3.1.2 Cumulative Risk Increases

The cumulative risk impact of the change to allow the plant to enter a higher operational condition of operation with one or more safety-related components unavailable (as proposed here), is measured by the average yearly risk increase associated with the change. In general, this cumulative risk increase is assessed in terms of both ΔCDF and

ΔLERF. The increase in CDF due to the proposed change is expressed by the following equation, which integrates the risk impact from all expected specified conditions (i.e., all expected plant conditions caused by mode changes with various TS systems and components unavailable).

$$\Delta CDF = \Sigma(\Delta CDF_i) = \Sigma\ ICCDP_i\ f_i \qquad (2)$$

Where

ΔCDF_i = the CDF increase due to specified condition i

$ICCDP_i$ = the ICCDP associated with specified condition i

F_i = the average yearly frequency of occurrence of specified condition i

The magnitude of the ΔCDF and ΔLERF values associated with plant conditions applicable to LCO 3.0.4.b allowances can be managed by controlling the temporary risk increases, in terms of both CDF and LERF (i.e., ICCDP and ICLERP), and the frequency (f), of each of such conditions. In addition to the points made in the previous section regarding temporary risk increases, the following points put into perspective how the key elements of the proposed risk-informed approach, used to justify an LCO 3.0.4.b allowance, are expected to prevent significant cumulative risk increases by limiting the frequency of its use:

- The frequency of risk-significant conditions will be limited by not providing the LCO 3.0.4.b allowances to the higher risk systems and components.

- The frequency of risk-significant conditions will be limited by the requirement to assess the likelihood that the LCO will be satisfied following the mode change.

- The frequency of risk-significant conditions is limited by the fact that such conditions can occur only when the plant is returning to power following shutdown, i.e., during a small fraction of time per year (data over the past five years indicate that the plants are averaging 2.1 startups per year).

The addition of the proposed TS LCO 3.0.4.b allowances to the plant maintenance activities is not expected to change the plant's average (cumulative) risk significantly.

3.1.3 Risk Assessment and Risk Management of Mode Changes

With all safety systems and components operable, a plant can transition up in operational condition to power operation. With one or more system(s) or component(s) inoperable, this change permits a plant to transition up in mode to power operation if the inoperable system(s) or component(s) are not in the pre-analyzed higher risk category, a 10 CFR 50.65(a)(4) based risk assessment is performed prior to the mode transition, and the requisite risk management actions are taken. The proposed TS Bases state, "When an LCO is not met, LCO 3.0.4 also allows entering MODES or other specified conditions in the Applicability following assessment of the risk impact and determination that the impact can be managed. 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."

It should be noted that the risk assessment, for the purposes of LCO 3.0.4.b, must take into account all inoperable TS equipment regardless of whether the equipment is included in the licensee's normal 10 CFR 50.65(a)(4) risk assessment scope. The risk assessments will be conducted using the procedures and guidance endorsed by RG 1.160. The results of the risk assessment shall be considered in determining the acceptability of entering the MODE or other specified condition in the Applicability statement, and any corresponding risk management actions.

A risk assessment and establishment of risk management actions, as appropriate, are required for determination of acceptable risk for entering MODE or other specified conditions in the Applicability when an LCO is not met. Elements of acceptable risk assessment and risk management actions are included in Section 11 of NUMARC 93-01, "Assessment of Risk Resulting from Performance of Maintenance Activities" (ADAMS Accession No. ML11116A198), as endorsed by RG 1.160, which addresses general guidance for conduct of the risk assessment, gives quantitative and qualitative guidelines for establishing risk management actions, and provides example risk management actions. These risk management actions include actions to plan and conduct other activities in a manner that controls overall risk, actions to increase risk awareness by shift and management personnel, actions to reduce the duration of the conditions, 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.

NUMARC 93-01 states that a licensee's risk assessment process should be sufficiently robust and comprehensive to assess risk associated with maintenance activities during power operation, low power, and shutdown conditions (all modes of operation), including changes in plant conditions. NUMARC 93-01 also states that the risk assessment should include consideration of: the degree of redundancy available for performance of the safety function(s) served by the out-of-service equipment; the duration of the out-of-service condition; component and system dependencies that are affected; the risk impact of performing the maintenance during shutdown versus at power; and, the impact of mode transition risk. For power operation, key plant safety functions are those that ensure the integrity of the reactor coolant pressure boundary, ensure the capability to shutdown and maintain the reactor in safe shutdown condition, and ensure the capability to prevent or mitigate the consequences of accidents that could result in potentially significant offsite exposures.

While the inoperabilities permitted by the completion times of TS required actions take into consideration the safety significance and redundancy of the system or components within the scope of an LCO, the completion times generally do not address or consider concurrent system or component inoperabilities in multiple LCOs. Therefore, the performance of the 10 CFR 50.65(a)(4) risk assessment which looks at the entire plant configuration is essential (and required) prior to changing the mode. The 10 CFR 50.65(a)(4)-based risk assessment will be used to confirm (or reject) the appropriateness of transitioning up in mode given the actual status of plant safety equipment.

The risk impact on the plant condition of invoking a TS LCO 3.0.4.b allowance will be assessed and managed through the program established to implement 10 CFR 50.65(a)(4). This program is consistent with RG 1.177 and RG 1.174 in its approach. The implementation guidance for paragraph (a)(4) of the Maintenance Rule addresses controlling temporary risk increases resulting from maintenance activities. This guidance, consistent with guidance in RG 1.177, establishes action thresholds based on qualitative and quantitative considerations and risk

management actions. Significant temporary risk increases following a TS LCO 3.0.4.b allowance are unlikely to occur unless:

- High-risk configurations are allowed (e.g., certain combinations of multiple component outages), or

- Risk management of plant operation activities is inadequate.

The requirements associated with the proposed change are established to ensure that such conditions will not occur.

The thresholds of the cumulative (aggregate) risk impacts, assessed pursuant to 10 CFR 50.65(a)(4) and the associated implementation guidance, are based on the permanent change guidelines in NRC RG 1.174. Therefore, licensees will manage the risk exercising TS LCO 3.0.4 in conjunction with the risk from other concurrent plant activities to ensure that any increase, in terms of CDF and LERF will be small and consistent with the Commission's Safety Goal Policy Statement.

3.2 Oversight

The ROP provides a means for assessing the licensee's performance in the application of the proposed mode change flexibility. The adequacy of the licensee's assessment and management of maintenance-related risk is addressed by existing inspection programs and guidance for 10 CFR 50.65(a)(4). Although the current versions of that guidance do not specifically address application of the licensee's (a)(4) program to support risk-informed TSs, it is expected that, in most cases, risk assessment and management associated with risk-informed TSs would be required by (a)(4), because maintenance activities will be involved.

Adoption of the proposed change will make failure to assess and manage the risk of an upward mode change with inoperable equipment covered by TSs, prior to commencing such a mode change, a violation of TSs. Further, as explained above in general, under most foreseeable circumstances, such a change in configuration would also require a risk assessment under 10 CFR 50.65(a)(4). Inoperable systems or components will necessitate maintenance to restore them to operability, and hence a 10 CFR 50.65(a)(4) risk assessment would be performed prior to the performance of those maintenance actions (except for immediate plant stabilization and restoration actions if necessary). Further, before altering the plant's configuration, including plant configuration changes associated with mode changes, the licensee must update the existing (a)(4) risk assessment to reflect those changes.

The *Federal Register* notice issuing a revision to the Maintenance Rule, 10 CFR 50.65 (64 FR 38553. dated July 19, 1999), along with NRC Inspection Procedure 71111.13, and Section 11, dated February 22, 2000, "Assessment of Risk Resulting from Performance of Maintenance Activities," of NUMARC 93-01, all indicate that to determine the safety impact of a change in plant conditions during maintenance, a risk assessment must be performed before changing plant conditions. The bases for the proposed TS change mandate that the risk assessment and management of upward mode changes will be conducted under the licensee's program and process for meeting 10 CFR 50.65(a)(4). Oversight of licensee performance in assessing and managing the risk of plant maintenance activities is conducted principally by inspection in accordance with ROP Baseline Inspection Procedure (IP) 71111.13, "Maintenance Risk Assessment and Emergent Work Control." Supplemental IP 62709, "Configuration Risk

Assessment and Risk Management Process," is utilized to evaluate the licensee's process, when necessary.

The ROP is described in overview in NUREG-1649, Rev. 3, "Reactor Oversight Process" (ADAMS Accession No. ML16214A274), and in detail in the NRC Inspection Manual. IP 71111.13 requires verification of performance of risk assessments when they are required by 10 CFR 50.65(a)(4) and in accordance with licensee procedures. The procedure also requires verification of the adequacy of those risk assessments and verification of effective implementation of licensee-prescribed risk management actions. The rule itself requires such assessment and management of risk prior to maintenance activities, including preventive maintenance, surveillance, and testing (and promptly for emergent work) during all modes of plant operation.

The guidance documents for both industry implementation of Section 50.65(a)(4) and NRC oversight of that implementation indicate that changes in plant configuration (which would include mode changes) in support of maintenance activities must be taken into account in the risk assessment and management process. Revisions to NRC inspection guidance and licensee implementation procedures will be needed to address oversight of risk assessment and management required by TSs in support of mode changes that are not already required under the circumstances by 10 CFR 50.65(a)(4). This consideration provides performance-based regulatory oversight of the use of the proposed flexibility, and a disincentive to use the flexibility without the requisite care in planning.

In addition, the NRC staff developed the significance determination process (SDP) guidance for use in assessing inspection findings related to 10 CFR 50.65(a)(4). This guidance was issued in draft for comment and became final during August 2008. The ROP considers inspection findings and performance indicators in evaluating licensee ability to operate safely. The SDP is used to determine the significance of inspection findings related to licensee assessment and management of the risk associated with performing maintenance activities under all plant operating or shutdown conditions. Unplanned reactor scrams and unplanned power changes are two of the Reactor Safety Performance Indicators that the ROP utilizes to assess licensee performance and inform the public. The ROP will provide a disincentive to entering into power operation (Mode 1) when there is a significant likelihood that the mode would have to be subsequently exited due to failure to restore the unavailable equipment within the completion time.

3.3 Summary

The licensee submitted proposed TS changes to allow entry into a higher mode of operation, or other specified condition in the TS Applicability, while relying on the TS conditions, and associated required actions and completion times, provided a risk assessment is performed to confirm the acceptability of that action. The proposal revises Harris TS LCO 3.0.4 and SR 4.0.4 and Oconee TS LCO 3.0.4 and SR 3.0.4, and their application to the TSs. New paragraphs a, b, and care proposed for TS LCO 3.0.4.

The proposed TS LCO 3.0.4.a retains the current allowance, permitting the mode change when the TS required actions allow indefinite operation.

Proposed TS LCO 3.0.4.b is the change to allow entry into a higher mode of operation, or other specified condition in the TS Applicability, while relying on the TS conditions and associated required actions and completion times, provided a risk assessment is performed to confirm the

acceptability of that action for the existing plant configuration. The NRC staff review finds that the process proposed by the licensee for assessing and managing risk during the implementation of the proposed TS LCO 3.0.4.b allowances meets Commission guidance for TS changes. Key elements of this process are listed below.

- A risk assessment shall be performed before any TS LCO 3.0.4.b allowance is invoked.

- The risk impact on the plant condition when invoking an LCO 3.0.4.b allowance will be assessed and managed through the program established to implement 10 CFR 50.65(a)(4) and the associated guidance in RG 1.160. Allowing entry into a higher mode or condition in the Applicability of an LCO after a 10 CFR 50.65(a)(4) based risk assessment and appropriate risk management actions are taken for the existing plant configuration will ensure that plant safety is maintained.

- The LCO 3.0.4.b allowance will be used only when the licensee determines that there is a high likelihood that the LCO will be satisfied within the required action's completion time.

- TS systems and components which may be of higher risk during mode changes have been identified generically by each owners' group for each plant operational mode or condition. Licensees will identify such plant-specific systems and components in the individual plant TSs. The proposed LCO 3.0.4.b allowance does not apply to these systems and components for the mode or condition in the applicability of an LCO at which they are of higher risk.

- In adopting LCO 3.0.4.b, the licensee will ensure that plant procedures in place to implement 10 CFR 50.65(a)(4) address the situation where entering a mode or other specified condition in the applicability is contemplated with plant equipment inoperable. Such plant procedures will follow the guidance endorsed by NRC RG 1.160.

The NRC's ROP provides the framework for inspectors and other NRC staff to oversee the implementation of 10 CFR 50.65(a)(4) requirements at a specific plant and assess the licensee's actions and performance.

The LCO 3.0.4.b allowance does not apply to values and parameters of the TSs that have their own respective LCO (e.g., Reactor Coolant System Specific Activity), but instead those values and parameters are addressed by LCO 3.0.4.c. The TS values and parameters for which mode transition allowances apply, will have a note that states LCO 3.0.4.c is applicable.

The objective of the proposed change is to provide additional operational flexibility without compromising plant safety.

The licensee has a Bases control program in Oconee TS 5.5.15 and Harris TS 6.8.4 which is consistent with the bases control program described in the STS for B&W plants, NUREG-1430, Revision 4 and Westinghouse Plants, NUREG-1431, Revision 4. The licensee will make conforming changes to the TS Bases for TS LCO 3.0.4 and SR 3.0.4 (SR 4.0.4 for Harris), concurrent with the license amendment. The NRC staff agrees that the TS Bases Control Program is the appropriate process for updating the affected TS Bases pages.

The licensee's proposed changes are acceptable because the adopted key elements; requires the licensee to assess and manage risk; and consistent with NRC-approved TSTF-359, and the Commission's regulations.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina and South Carolina officials were notified of the proposed issuance of the amendment on August 20, 2020 (ADAMS Accession Nos. ML20233A506 and ML20233A505, respectively). The State of North Carolina official responded on August 20, 2020 (ADAMS Accession No. ML20234A249), with no comments. The State of South Carolina official responded on August 20, 2020 (ADAMS Accession No. ML20233A828), with no comments.

5.0 ENVIRONMENTAL CONSIDERATION

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.

6.0 CONCLUSION

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

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SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3, AND SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF AMENDMENTS REGARDING THE TECHNICAL SPECIFICATION REQUIREMENTS PERTAINING TO MODE CHANGE LIMITATIONS (EPID L-2020-LLA-0024) DATED SEPTEMBER 4, 2020

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