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ONS-2015-113

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U.S. Nuclear Regulatory Commission  
Washington, DC 20555

10 CFR 50.55a

Duke Energy Carolinas, LLC (Duke Energy)  
Oconee Nuclear Station, Units 1, 2 and 3  
Docket Numbers 50-269, 50-270, and 50-287  
Renewed License Numbers DPR-38 DPR-47 and DPR-50

**Subject:** Fifth 10-Year Inservice Testing Plan, Relief Request No. ON-GRR-01,  
Grace Period for OM Code Frequencies (Code Case OMN-20)

Pursuant to 10 CFR 50.55a(z)(2), Duke Energy is seeking relief from the frequency specifications of the American Society of Mechanical Engineers, Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code) by utilizing the alternate frequencies specified in Code Case OMN-20. Complying with frequencies as specified in the OM Code would result in a hardship without a compensating increase in the level of quality and safety. This relief request will apply to the Fifth 10-Year Inservice Testing (IST) Interval for Oconee Nuclear Station, Units 1, 2, and 3, which began on July 1, 2012 and incorporates 2004 Edition, through Addenda OMB-2006, of the ASME OM Code.

Duke Energy requests approval of this relief request by March 31, 2016, to support the upcoming Unit 3 Spring 2016 refueling outage. The Relief Request is provided as an enclosure to this letter.

This submittal document contains no regulatory commitments.

If there are any questions or further information is needed you may contact David Haile at (864) 873-4742.

Sincerely,

Scott L. Batson  
Vice President  
Oconee Nuclear Station

Enclosure

Relief Request No. ON-GRR-01:  
Grace Period for OM Code Frequencies (Code Case OMN-20)  
for Fifth Interval Inservice Test Plan

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ONS-2015-113  
November 23, 2015  
Page 2

cc (with enclosure):

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**Enclosure to ONS-2015-113  
ON-GRR-01 IST Generic Relief Request**

**Duke Energy Carolinas, LLC  
Oconee Nuclear Station, Units 1, 2, and 3**

**Relief Request No. ON-GRR-01:**

**Grace Period for OM Code Frequencies (Code Case OMN-20)  
for Fifth Interval Inservice Test Plan**

**Enclosure to ONS-2015-113**  
**ON-GRR-01 IST Generic Relief Request**

**Relief Request ON-GRR-01:**  
**Inservice Test Plan Grace Period for OM Code Frequencies (Code Case OMN-20)**

**This Proposed Alternative is submitted in Accordance with 10CFR50.55a(z)(2).**

**1. ASME Code Component(s) Affected**

All Pumps and Valves contained within the Inservice Testing Program scope.

**2. Applicable Code Edition and Addenda**

ASME OM Code; 2004 Edition with 2005 and 2006 Addenda.

**3. Applicable Code Requirement(s)**

The test frequencies given in the ASME OM Code do not include a tolerance band. This request applies to the test frequencies specified by the ASME OM Code.

<b><u>OM Reference</u></b>	<b><u>Excerpts of Applicable Frequency Requirements</u></b> (not exhaustive)
ISTA-3120(a)	<u>Inservice Testing Interval:</u> The frequency for the inservice testing shall be in accordance with the requirements of Section IST.
ISTB-3400	<u>Frequency of Inservice Tests:</u> An inservice test shall be run on each pump as specified in Table ISTB-3400-1.
ISTB-6200(a)	<u>Corrective Action: Alert Range.</u> If the measured test parameter values fall within the alert range of Table ISTB-5121-1, Table ISTB-5221-1, Table ISTB-5321-1, or Table ISTB 5321-2, as applicable, the frequency of testing specified in ISTB-3400 shall be doubled until the cause of the deviation is determined and the condition is corrected.
ISTC-3510	<u>Exercising Test Frequency:</u> Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months, except as provided by ISTC-3520, ISTC-3540, ISTC- 3550, ISTC-3570, ISTC-5221, and ISTC-5222.
ISTC-3540	<u>Manual Valves:</u> Manual valves shall be full-stroke exercised at least once every 2 years, except where adverse conditions may require the valve to be tested more frequently to ensure operational readiness. Any increased testing frequency shall be specified by the Owner. The valve shall exhibit the required change of obturator position.
ISTC-3630(a)	<u>Leakage Rate for Other Than Containment Isolation Valves Test Frequency:</u> Tests shall be conducted at least once every 2 years
ISTC-3700	<u>Position Verification Testing:</u> Valves with remote position indicators shall be observed locally at least once every 2 years to verify that valve operation is accurately indicated.
ISTC-5221(c)(3)	<u>Valve Obturator Movement:</u> At least one valve from each group shall be disassembled and examined at each refueling outage; all valves in each group shall be disassembled and examined at least once every 8 years.

**Enclosure to ONS-2015-113**  
**ON-GRR-01 IST Generic Relief Request**

<b>OM Reference</b>	<b>Excerpts of Applicable Frequency Requirements</b> (not exhaustive)
Appendix I, I-1320 (a)	<u>Test Frequency, Class 1 Pressure Relief Devices:</u> Class 1 pressure relief valves shall be tested at least once every 5 years, starting with initial electric power generation. .... a minimum of 20% of the valves from each valve group shall be tested within any 24 month interval.
Appendix I, I-1330	<u>Test Frequency, Class 1 Nonreclosing Pressure Relief Devices:</u> Class 1 nonreclosing pressure relief devices shall be replaced every 5 years, ...
Appendix I, I-1340	<u>Test Frequency, Class 1 Pressure Relief Valves That Are Used for Thermal Relief Applications:</u> Tests shall be performed in accordance with I-1320, Test Frequencies, Class 1 Pressure Relief Valves.
Appendix I, I-1350 (a)	<u>Test Frequency, Class 2 and 3 Pressure Relief Valves:</u> Classes 2 and 3 pressure relief valves, with the exception of PWR main steam safety valves, shall be tested every 10 years, starting with initial electric power generation. .... a minimum of 20% of the valves from each valve group shall be tested within any 48 month interval.
Appendix I, I-1360	<u>Test Frequency, Class 2 and 3 Nonreclosing Pressure Relief Devices:</u> Classes 2 and 3 nonreclosing pressure relief devices shall be replaced every 5 years, ....
Appendix I, I-1370 (a) & (b)	<u>Test Frequency, Class 2 and 3 Primary Containment Vacuum Relief Valve:</u> (a) Tests shall be performed on all Class 2 and 3 containment vacuum relief valves at each refueling outage or every 2 years, whichever is sooner, ... (b) Leak tests shall be performed on all Class 2 and 3 containment vacuum relief valves at a frequency designated by the Owner in accordance with Table ISTC-3500-1.
Appendix I, I-1380	<u>Test Frequency, Class 2 and 3 Vacuum Relief Valves, Except for Primary Containment Vacuum Relief Valves:</u> All Classes 2 and 3 vacuum relief valves shall be tested every 2 yr, ...
Appendix I, I-1390	<u>Test Frequency, Class 2 and 3 Pressure Relief Devices used for Thermal Relief:</u> Tests shall be performed on all Classes 2 and 3 relief devices used in thermal relief application every 10 yr, ... In lieu of tests the Owner may replace the relief devices at a frequency of every 10 yr, ...
Appendix II, II-4000(a)(1)	<u>Performance Improvement Activities Interval:</u> If sufficient information is not currently available to complete the analysis required in II-3000, or if this analysis is inconclusive, then the following activities shall be performed at sufficient intervals over an interim period of the next 5 years or two refueling outages, whichever is less, to determine the cause of the failure or the maintenance patterns.
Appendix II, II-4000(b)(1)(e)	<u>Optimization of Condition Monitoring Activities Interval:</u> Identify the interval of each activity. Interval extensions shall be limited to one fuel cycle per extension. Intervals shall not exceed the maximum intervals shown in Table II-4000-1.

## Enclosure to ONS-2015-113

### ON-GRR-01 IST Generic Relief Request

#### 4. Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and standards," paragraph (z)(2), relief is requested from the frequency specifications of the ASME OM Code. The basis of the relief request is that the Code requirement presents an undue hardship without a compensating increase in the level of quality or safety.

ASME OM Code, 2004 Edition, with 2005 and 2006 Addenda, establishes the inservice test frequency for all components within the scope of the Code. The frequencies (e.g., quarterly) have historically been interpreted as "nominal" frequencies (generally as defined in the Table 3.2 of NUREG 1482) and Owners applied the surveillance extension time period (i.e., grace period) prescribed by the plant Technical Specifications (TS). The TS (SR 3.0.2) allows for a 25% extension of the surveillance test frequency to facilitate scheduling, and to accommodate plant conditions that may not be suitable for conducting the surveillance. However, regulatory issues have been raised with regard to the applicability of the TS "Grace Period" to ASME OM Code required inservice test frequencies, irrespective of allowances provided under TS Administrative Controls (e.g., Oconee's TS 5.5.9, "Inservice Testing Program," invokes the application of SR 3.0.2 to OM Code frequencies that are 2 years or less).

Without a tolerance band on the ASME OM Code IST frequency, operational flexibility is restricted and introduces a conflict where a surveillance test would be required due to the expiration of its frequency period, but where the test is not possible or practical to be performed until a plant condition is resolved, or until a Limiting Condition for Operation (LCO) is restored. This is the basis for why the NRC allows a frequency tolerance as described in TS SR 3.0.2. Without a similar provision for applying operational flexibility to OM Code testing frequencies, an unusual hardship is created for the plant to adequately schedule work tasks and possibly cause the plant to enter into higher risk operating scenarios.

Thus, just as with TS required surveillance testing, tolerance is needed for OM Code testing intervals to assure operational and scheduling flexibility to accommodate maintenance and testing activities to optimize safe operating conditions.

#### 5. Proposed Alternative and Basis for Use

Oconee Nuclear Station proposes to use the ASME OM Code Case OMN-20 as published in the ASME OM Code 2012 Edition. The 2012 edition of the ASME OM Code was approved by the ASME Board on Nuclear Codes and Standards. ASME OM-2012 was also approved by the American National Standards Institute on December 21, 2012.

Code Case OMN-20 will be used for determining acceptable tolerances for pump and valve testing frequencies. The code case as published in ASME OM Code, 2012 Edition, is repeated below.

**Enclosure to ONS-2015-113**  
**ON-GRR-01 IST Generic Relief Request**

**Published OMN-20 Code Case.**

*ASME OM Division: 1 Section IST and earlier editions and addenda of ASME OM Code specify component test frequencies based either on elapsed time periods (e.g., quarterly, 2 years, etc.) or based on the occurrence of plant conditions or events (e.g., cold shutdown, refueling outage, upon detection of a sample failure, following maintenance, etc.).*

*(a) Components whose test frequencies are based on elapsed time periods shall be tested at the frequencies specified in Section IST with a specified time period between tests as shown in Table 1 (below). The specified time period between tests may be reduced or extended as follows:*

- 1) For periods specified as less than 2 years, the period may be extended up to 25% for any given test.*
- 2) For periods specified as greater than or equal to 2 years, the period may be extended by up to 6 months for any given test.*
- 3) All periods specified may be reduced at the discretion of the owner (i.e., there is no minimum period requirement).*

*Period extension is to facilitate test scheduling and considers plant operating conditions that may not be suitable for performance of the required testing (e.g., performance of the test would cause an unacceptable increase in the plant risk profile due to transient conditions or other ongoing surveillance, test or maintenance activities). Period extensions are not intended to be used repeatedly merely as an operational convenience to extend test intervals beyond those specified.*

*Period extensions may also be applied to accelerated test frequencies (e.g. pumps in Alert Range) and other less than two year test frequencies not specified in Table 1 (below).*

*Period extensions may not be applied to the test frequency requirements specified in Subsection ISTD, Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-water Reactor Nuclear Power Plants, as Subsection ISTD contains its own rules for period extensions.*

**Table 1 Specified Test Frequencies**

<b>Frequency</b>	<b>Specified Time Period Between Tests</b>
Quarterly (or every 3 months)	92 days
Semiannually (or every 6 months)	184 days
Annually (or every year)	366 days
X Years	X calendar years, where "X" is a whole number of years $\geq 2$

*(b) Components whose test frequencies are based on the occurrence of plant conditions or events may not have their period between tests extended excepts as allowed by ASME OM, Division 1, Section IST, 2009 Edition through OMa-2011 Addenda and all earlier editions and addenda.*

**Enclosure to ONS-2015-113**  
**ON-GRR-01 IST Generic Relief Request**

**6. Duration of Proposed Alternative**

The proposed alternative identified in this relief request will be utilized for the remainder of the Oconee Fifth 10-year IST interval (which began July 1, 2012).

**7. Precedents**

Specific relief granted for other plants are similar to Relief Request ON-GRR-01.

Relief Request Number PR-04 for Callaway Plant Unit 1 was approved by NRC by letter dated July 15, 2014 (TAC Nos. MF2784, MF2785, MF2786, MF2788, and MF2789)

Relief Request Number RR-06 for Prairie Island Unit 1 and 2 was approved by the NRC by letter dated December 5, 2014 (TAC Nos. MF3928 and MF3929).

Relief Request Number RG01 for Columbia Generating Station was approved by the NRC by letter dated December 9, 2014 (TAC No. MF3847, MF3848, MF3849, MF3851, MF3852, MF3853, MF3854, MF3855, MF3856, MF3857, AND MF3858)