T. PRESTON GILLESPIE, JR.
Vice President
Oconee Nuclear Station

Duke Energy
ON01VP / 7800 Rochester Hwy.
Seneca, SC 29672

864-873-4478
864-873-4208 fax
T.Gillespie@duke-energy.com

10 CFR 50.90

October 5, 2012

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

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station (ONS), Units 2 and 3
Renewed Facility Operating License Numbers DPR-47 and DPR-55
Docket Numbers 50-270 and 50-287
License Amendment Request for a One-Time, 19-Month Extension to the ONS Units 2 and 3 Integrated Leak Rate Test Intervals
License Amendment Request No. 2012-12

In accordance with 10 CFR 50.90, Duke Energy Carolinas, LLC (Duke Energy) requests Nuclear Regulatory Commission (NRC) review and approval to amend the Technical Specifications (TS) of Renewed Facility Operating License Nos. DPR-47 and DPR-55. The proposed change would allow a one-time extension to the ten-year frequency of the ONS Unit 2 and Unit 3 containment leakage rate test (i.e., Integrated Leak Rate Test (ILRT) or Type A test). This test is required by Technical Specification (TS) 5.5.2 "Containment Leakage Rate Testing Program." The proposed change would permit the existing ILRT frequency to be extended from ten years to approximately 11.6 years.

The proposed revision would avoid the necessity of performing the ONS Unit 2 Type A test prior to the expiration of the ONS Unit 2 ten-year interval and, based on current refueling outage projected schedules, allow Duke Energy to minimize the impact of the ILRT on critical path outage activities. Currently, the ILRT is to be performed approximately six months prior to the 10th year anniversary of the completion of the last Type A test (May 29, 2004). If granted, this revision would extend the period from 120 months (10 years) to no longer than 139 months between successive tests. In terms of refueling outages, this extension would move the performance of the next ILRT from the scheduled fall 2013 refueling outage (2EOC26) to the fall 2015 refueling outage (2EOC27).

The proposed revision would also provide the same benefits for ONS Unit 3 outage activities. Currently, the ONS Unit 3 ILRT is to be performed approximately eight months prior to the 10th year anniversary of the completion of the last Type A test (December 21, 2004). If granted, this revision would extend the period from 120 months (10 years) to no longer than 139 months between successive tests. In terms of refueling outages, this extension would move the performance of the next ILRT from the scheduled spring 2014 refueling outage (3EOC27) to the spring 2016 refueling outage (3EOC28).

The last ONS Unit 2 and Unit 3 ILRTs were completed on May 29, 2004, and December 21, 2004, respectively. The next ILRTs are required by TS 5.5.2 to be performed no later than May 29, 2014, and December 21, 2014, which are approximately six months after the

A017
NRR

conclusion of ONS Unit 2 outage 2EOC26 and eight months after the conclusion of ONS Unit 3 outage 3EOC27. The proposed change would encompass the currently scheduled completion of 2EOC27 and 3EOC28. This request is for a 19 month extension, which bounds the time to begin the next operating cycle. This additional time is requested to allow flexibility in the schedule to address any potential extended down powers or forced outages or unforeseen issues that may arise during an outage without having to revise this request.

An evaluation of the proposed change is provided in the Enclosure 1. A No Significant Hazards Consideration Evaluation and the Environmental Impact Analysis are also included in the Enclosure 1. The marked up and revised Technical Specification pages are provided in Attachments 1 and 2, respectively.

In accordance with Duke Energy administrative procedures that implement the Quality Assurance Program Topical Report, these proposed changes have been reviewed and approved by the Plant Operations Review Committee. A copy of this LAR is being sent to the State of South Carolina in accordance with 10 CFR 50.91 requirements.

Duke Energy requests approval of this amendment request by October 12, 2013. Once approved, the amendment will be implemented within 60 days. Duke Energy will update applicable sections of the ONS Updated Final Safety Analysis Report (UFSAR), as necessary, and submit these changes in accordance with 10 CFR 50.71(e). There are no new commitments being made as a result of this proposed change. Inquiries on this proposed amendment request should be directed to Sandra Severance of the Oconee Regulatory Affairs Group at (864) 873-3466.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 5, 2012.

Sincerely,

T Gillespie

T. Preston Gillespie, Jr., Vice President,
Oconee Nuclear Station

Enclosure:
1. Evaluation of Proposed Change

Attachments:
1. Technical Specifications – Marked up TS Pages
2. Technical Specifications - Revised TS Pages

cc w/enclosure and attachments:

Mr. Victor McCree
Regional Administrator
U.S. Nuclear Regulatory Commission – Region II
Marquis One Tower
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, GA 30303-1257

Mr. John Boska
Senior Project Manager
(By electronic mail only)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop 0-8 G9A
Washington, DC 20555

NRC Senior Resident Inspector
Oconee Nuclear Station

Susan E. Jenkins, Manager,
Radioactive & Infectious Waste Management,
SC Department of Health & Environmental Control
2600 Bull Street
Columbia, SC 29201

ENCLOSURE 1

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request for a One-Time, 19-Month Extension to the ONS Units 2 and 3 Integrated Leak Rate Test Intervals

1. SUMMARY DESCRIPTION

2. BACKGROUND

3. DETAILED DESCRIPTION OF PROPOSED CHANGES

4. TECHNICAL EVALUATION

5. REGULATORY EVALUATION

- Significant Hazards Consideration
- Applicable Regulatory Requirements/Criteria
- Precedent
- Conclusion

6. ENVIRONMENTAL CONSIDERATION

7. REFERENCES

1. SUMMARY DESCRIPTION

Duke Energy Carolinas, LLC (Duke Energy) requests to amend the Renewed Facility Operating License DPR-47 for the Oconee Nuclear Station (ONS) Unit 2 and DPR-55 for the Oconee Nuclear Station (ONS) Unit 3 to revise Technical Specifications (TS) 5.5.2 "Containment Leakage Rate Testing Program," requirements. The proposed change would allow a one-time extension to the ten-year frequency of the ONS Unit 2 and Unit 3 containment leakage rate test (i.e., Integrated Leak Rate Test (ILRT) or Type A test). This test is required by Technical Specification (TS) 5.5.2 "Containment Leakage Rate Testing Program." The proposed change would permit the existing ILRT frequency to be extended from ten years to approximately 11.6 years.

The proposed revision would avoid the necessity of performing the ONS Unit 2 Type A test prior to the expiration of the ONS Unit 2 ten-year interval and, based on current refueling outage projected schedules, allow Duke Energy to minimize the impact of the ILRT on critical path outage activities. Currently, the ILRT is to be performed approximately six months prior to the 10th year anniversary of the completion of the last Type A test (May 29, 2004). If granted, this revision would extend the period from 120 months (10 years) to no longer than 139 months between successive tests. In terms of refueling outages, this extension would move the performance of the next ILRT from the scheduled fall 2013 refueling outage (2EOC26) to the fall 2015 refueling outage (2EOC27).

The proposed revision would also provide the same benefits for ONS Unit 3 outage activities. Currently, the ONS Unit 3 ILRT is to be performed approximately eight months prior to the 10th year anniversary of the completion of the last Type A test (December 21, 2004). If granted, this revision would extend the period from 120 months (10 years) to no longer than 139 months between successive tests. In terms of refueling outages, this extension would move the performance of the next ILRT from the scheduled spring 2014 refueling outage (3EOC27) to the spring 2016 refueling outage (3EOC28).

The last ONS Unit 2 and Unit 3 ILRTs were completed on May 29, 2004 and December 21, 2004 respectively. The next ILRTs are required by TS 5.5.2 to be performed no later than May 29, 2014 and December 21, 2014, which are approximately six months after the conclusion of ONS Unit 2 outage 2EOC26 and eight months after the conclusion of ONS Unit 3 outage 3EOC27. The proposed change would encompass the currently scheduled completion of 2EOC27 and 3EOC28. This request is for a 19 month extension, which bounds the time to begin the next operating cycle. This additional time is requested to allow flexibility in the schedule to address any potential extended down powers or forced outages or unforeseen issues that may arise during an outage without having to revise this request.

Duke Energy is proposing this revision based on the satisfactory containment leakage rate history and containment visual examination history at ONS Unit 2 and Unit 3. Additional insights from a risk analysis of this extension support the deterministic argument of extending the inspection interval 19 months. This request for a 19-month extension would bound the time to reach 2EOC27 and 3EOC28 and provide additional time to allow flexibility in the schedule to address any potential extended down powers,

forced outages or unforeseen issues that may arise during that outage and the intervening time before 2EOC27 and 3EOC28 without having to revise this request.

2. BACKGROUND

2.1 Description of Primary Containment System

The primary containment is described in Updated Final Safety Analysis Report (UFSAR) Sections 1.2.2.3, 3.8.1, and 6.2.1.1.1.

The containment is a reinforced concrete structure which consists of a post-tensioned reinforced concrete cylinder and dome connected to and supported by a massive reinforced concrete foundation slab. The containment design includes un-grouted tendons where the cylinder wall is pre-stressed with a post tensioning system in the vertical and horizontal directions, and the dome roof is pre-stressed using a three-way tensioning system.

The entire interior surface of the structure is lined with a welded ASTM A36 steel plate to assure a high degree of leak tightness. Numerous mechanical and electrical systems penetrate the Reactor Building wall through welded steel penetrations. The mechanical penetrations and access openings are designed, fabricated, inspected, and installed in accordance with Subsection B, Section III, of the ASME Pressure Vessel Code. All piping and ventilation penetrations are of the rigid welded type and are solidly anchored to the Reactor Building wall or foundation slab, thus precluding any requirements for expansion bellows.

Principal dimensions are as follows:

- Inside Diameter 116 ft.
- Inside Height (Including Dome) 208-1/2 ft.
- Vertical Wall Thickness 3-3/4 ft.
- Dome Thickness 3-1/4 ft.
- Foundation Slab Thickness 8-1/2 ft.
- Liner Plate Thickness 1/4 in.
- Internal Free Volume 1,836,000 cu ft. (as-built)

2.2 Testing Requirements of 10 CFR 50, Appendix J

The testing requirements of 10 CFR 50, Appendix J, provide assurance that leakage from the containment, including systems and components that penetrate the containment, does not exceed the allowable leakage values specified in the TS. 10 CFR 50, Appendix J also ensures that periodic surveillance of reactor containment penetrations and isolation valves is performed so that proper maintenance and repairs are made during the service life of the containment and the systems and components penetrating primary containment. The limitation on containment leakage provides assurance that the containment would perform its design function following an accident up to and including the plant design basis accident. Appendix J identifies three types of required tests: (1) Type A tests, intended to measure the primary containment overall integrated leakage rate; (2) Type B tests, intended to detect local leaks and to measure

leakage across pressure-containing or leakage limiting boundaries (other than valves) for primary containment penetrations; and (3) Type C tests, intended to measure containment isolation valve leakage rates. Type B and C tests identify the vast majority of potential containment leakage paths. Type A tests identify the overall (integrated) containment leakage rate and serve to ensure continued leakage integrity of the containment structure by evaluating those structural parts of the containment not covered by Type B and C testing.

In 1995, 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," was amended to provide a performance-based Option B for the containment leakage testing requirements. Option B requires that test intervals for Type A, Type B, and Type C testing be determined by using a performance-based approach. Performance-based test intervals are based on consideration of the operating history of the component and resulting risk from its failure. The use of the term "performance-based" in 10 CFR 50 Appendix J refers to both the performance history necessary to extend test intervals as well as to the criteria necessary to meet the requirements of Option B.

Also in 1995, Regulatory Guide (RG) 1.163 was issued. The RG endorsed Nuclear Energy Institute (NEI) 94-01, Revision 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J" with certain modifications and additions. Option B, in concert with RG 1.163 and NEI 94-01, Revision 0, allows licensees with a satisfactory ILRT performance history (i.e., two consecutive, successful Type A tests) to reduce the test frequency for the containment Type A (ILRT) test from three tests in 10 years to one test in 10 years. This relaxation was based on an NRC risk assessment contained in NUREG-1493, "Performance-Based Containment Leak-Test Program," and Electric Power Research Institute (EPRI) TR-104285, "Risk Impact Assessment of Revised Containment Leak Rate Testing Intervals," both of which showed that the risk increase associated with extending the ILRT surveillance interval was very small. In addition to the 10-year ILRT interval, provisions for extending the test interval an additional 15 months was considered in the establishment of the intervals allowed by RG 1.163 and NEI 94-01, but that this "should be used only in cases where refueling schedules have been changed to accommodate other factors."

In 2008, NEI 94-01, Revision 2A, was issued. This document describes an acceptable approach for implementing the optional performance-based requirements of Option B to 10 CFR 50, Appendix J, subject to the limitations and conditions noted in Section 4.0 of the NRC Safety Evaluation Report (SER) on NEI 94-01. The NRC SER was included in the front matter of this report. NEI 94-01, Revision 2A, includes provisions for extending Type A ILRT intervals to up to fifteen years and incorporates the regulatory positions stated in Regulatory Guide 1.163 (September 1995). It delineates a performance-based approach for determining Type A, Type B, and Type C containment leakage rate surveillance testing frequencies. Justification for extending test intervals is based on the performance history and risk insights.

The NRC has also provided the following concerning the extension of ILRT intervals to 15 years:

> "The basis for acceptability of extending the ILRT interval out to once per 15 years was the enhanced and robust primary containment inspection program and the local leakage rate testing of penetrations. Most of the primary containment leakage experienced has been attributed to penetration leakage and penetrations are thought to be the most likely location of most containment leakage at any time." (Reference NEI 94-01, Revision 3A, NRC SER Section 4.2)

2.3 Current ONS Technical Specification History

The following is a short summary of ONS TS history associated with containment leak-rate tests and is provided to establish the current TS requirements:

On October 30, 1996, the NRC issued Amendment No. 218 to Facility Operating License No. DPR-47 for ONS Unit 2 and No. 215 to Facility Operating License No. DPR-55 for ONS Unit 3. This amendment was in response to the application dated August 12, 1996, and supplement dated September 10, 1996, ML012050049. The amendment revised the TS associated with the containment leak-rate tests by implementing 10 CFR Part 50, Appendix J, Option B for Type A leak-rate tests only. The performance of Type B and C leak-rate tests remained under Option A of 10 CFR Part 50, Appendix J.

On February 28, 2002, the NRC issued Amendment No. 321 to Renewed Facility Operating License DPR-55 for ONS Unit 3, ML013650232. This amendment was in response to the application dated March 5, 2001, and supplement dated September 4, 2001. The steam generators (SG) for ONS Unit 3 were scheduled to be replaced during the refueling outage scheduled to begin in October 2004. Following SG replacement, a Type A test would be required. Since the October 2004, SG replacement was approximately 10 months past the end of the 15-month grace period of December 11, 2003, ONS Unit 3 would have been required to perform two consecutive Type A tests. Thus, the licensee proposed this one-time extension, which extended the ILRT interval approximately 16 months to the outage when the SG replacement occured.

On July 28, 2011, the NRC issued Amendment No. 377 to Facility Operating License No. DPR-47 for ONS Unit 2 and Amendment No. 376 to Facility Operating License No. DPR-55 for ONS Unit 3. The amendment was in response to the application dated July 14, 2010, ML11186A906. This amendment revised the TS to adopt technical specification task force technical change Traveler 52, Revision 3, to implement 10 CFR Part 50, Appendix J, Option B for Type B and C leak-rate tests.

On October 1, 2012, the NRC issued Amendment No. 381, ML12250A339, to Facility Operating License No. DPR-38. The amendment was in response to the application dated April 3, 2012, ML12097A248. The amendment allows for a one-time extension to the ten-year frequency of the ONS Unit 1 containment leakage rate test (i.e., Integrated Leak Rate Test (ILRT) or Type A test). This test is required by TS 5.5.2 "Containment Leakage Rate Testing Program." The amendment permits the existing ONS Unit 1 ILRT frequency to be extended from ten years to approximately 11.25 years.

3. DETAILED DESCRIPTION OF PROPOSED CHANGES

3.1 Current Technical Specification Requirement

ONS TS 5.5.2, "Containment Leakage Rate Testing Program," currently states:

A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. The next Unit 1 ILRT following the December 8, 2003 test shall be performed no later than March 8, 2015. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995. Containment system visual examinations required by Regulatory Guide 1.163, Regulatory Position C.3, shall be performed as follows:

1. *Accessible concrete surfaces and post-tensioning system component surfaces of the concrete containment shall be visually examined prior to initiating SR 3.6.1.1 Type A test. These visual examinations, or any portion thereof, shall be performed no earlier than 90 days prior to the start of refueling outages in which Type A tests will be performed. The validity of these visual examinations will be evaluated should any event or condition capable of affecting the integrity of the containment system occur between the completion of the visual examinations and the Type A test.*

2. *Accessible interior and exterior surfaces of metallic pressure retaining components of the containment system shall be visually examined at least three times every ten years, including during each shutdown for SR 3.6.1.1 Type A test, prior to initiating the Type A test.*

The calculated peak containment internal pressure for the design basis loss of coolant accident, P_a, is 59 psig. The containment design pressure is 59 psig.

The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.20% of the containment air weight per day.

Leakage rate acceptance criterion is:

a. *Containment leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the Type B and C tests, and $\leq 0.75\ L_a$ for Type A tests;*

The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50, Appendix J.

3.2 The Proposed Change

The proposed change would revise the initial paragraph of TS 5.5.2 by the addition of a specific requirement for ONS Units 2 and 3 while maintaining the current requirement for ONS Unit 1 (changes underlined), as shown below:

A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. The next Unit 1 ILRT following the December 8, 2003 test shall be performed no later than March 8, 2015. The next Unit 2 ILRT following the May 29, 2004 test shall be performed no later than December 29, 2015. The next Unit 3 ILRT following the December 21, 2004 test shall be performed no later than July 21, 2016. *This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995. Containment system visual examinations required by Regulatory Guide 1.163, Regulatory Position C.3, shall be performed as follows:*

1. *Accessible concrete surfaces and post-tensioning system component surfaces of the concrete containment shall be visually examined prior to initiating SR 3.6.1.1 Type A test. These visual examinations, or any portion thereof, shall be performed no earlier than 90 days prior to the start of refueling outages in which Type A tests will be performed. The validity of these visual examinations will be evaluated should any event or condition capable of affecting the integrity of the containment system occur between the completion of the visual examinations and the Type A test.*

2. *Accessible interior and exterior surfaces of metallic pressure retaining components of the containment system shall be visually examined at least three times every ten years, including during each shutdown for SR 3.6.1.1 Type A test, prior to initiating the Type A test.*

The calculated peak containment internal pressure for the design basis loss of coolant accident, P_a, is 59 psig. The containment design pressure is 59 psig.

The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.20% of the containment air weight per day.

Leakage rate acceptance criterion is:

a. *Containment leakage rate acceptance criterion is ≤ 1.0 L_a. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are ≤ 0.60 L_a for the Type Band C tests, and ≤ 0.75 L_a for Type A tests;*

The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50, Appendix J.

Attachment 1 contains existing TS page 5.0-7 marked up to show the proposed changes to TS 5.5.2. Attachment 2 contains the re-type of the proposed TS changes.

4. TECHNICAL EVALUATION

In addition to the periodic integrated leakage rate testing of the Reactor Containment, various other inspections and tests are performed on an ongoing basis to help assure primary containment integrity. The relevant basis, history, and results of these inspections and tests, as well as discussion of other, generic areas of interest, are included in the subsections below to aid in the review of this request. These include

- 4.1 – Second Interval Containment Inservice Inspection Plan
- 4.2 – Containment Surfaces Subject To Augmented Inspections
- 4.3 – Recent IWE/IWL Inspection Results
- 4.4 – Loss of Tendon Prestress
- 4.5 – Inaccessible Areas
- 4.6 – Containment Coatings Program
- 4.7 – Previous ILRT Results
- 4.8 – Appendix J Type B and Type C Testing Program
- 4.9 – IN 92-20, Inadequate Local Leak Rate Testing
- 4.10 – Supplemental Inspection Requirements
- 4.11 – Plant Specific Confirmatory Analysis.

As shown below, the combined results of these tests and inspections provide a high degree of assurance of continued primary containment integrity.

4.1 Second Interval Containment Inservice Inspection Plan

The ONS UFSAR classifies the Reactor Building as a Class 1 structure. Class 1 structures are those which prevent uncontrolled release of radioactivity and are designed to withstand all loadings without loss of function. The current American Society of Mechanical Engineers (ASME) Code component classifications did not exist at the time of plant design and construction. The ASME Class CC and MC designations were added in later editions of the Code. For the purposes of this plan, Class CC components will consist of the concrete Reactor Building and the Reactor Building Un-bonded Post-Tensioning System, and Class MC components will consist of the metallic shell and penetration liners.

Inspection Interval and Inspection Periods

The Second/Third Containment In-service Inspection Intervals for ONS Unit 2 and 3 are shown below. Please note that these intervals do not coincide with In-service Inspection Intervals for ASME Class 1, 2, and 3 systems and components. The term "EOC" used below is an abbreviation for "End of Cycle" and the associated number indicates the sequential refueling outage following initial operation of the unit. These inspection intervals and periods have been modified in accordance with the provisions of Duke Energy Corporation Request for Alternative Serial #03-GO-010.

IWE - Metal Containments and Liners of Concrete Containments

In accordance with TS 5.5.2, accessible interior and exterior surfaces of metallic pressure retaining components of the containment system shall be visually examined at least three times every ten years, including during each shutdown for TS Surveillance Requirement (SR) 3.6.1.1 Type A test, prior to initiating the Type A test.

The following table documents the Inspection Intervals and periods to meet the requirements of TS 5.5.2 and ASME Section XI, Table IWE-2500.

Second/Third Containment In-service Inspection Interval
Unit 2 (IWE)
(See Notes)

Interval 2

Start Date 07/15/2005	07/15/2008	07/15/2011	End Date 07/15/2014
1st Period		2nd Period (Note 5)	3rd Period
Outage 1 (EOC 21)		Outage 3 (EOC 23)	Outage 5 (EOC 25) Note 4
Outage 2 (EOC 22)		Outage 4 (EOC 24)	Outage 6 (EOC 26)

Interval 3*

Start Date 07/15/2014	07/15/2018	07/15/2021	End Date 07/14/2024
1st Period		2nd Period	3rd Period
Outage 1 (EOC 27)		Outage 3 (EOC 29)	Outage 4 (EOC 30)
Outage 2 (EOC 28)			Outage 5 (EOC 31)

* The scheduled dates for the Third Containment In-service Inspection Intervals are proposed dates in that the Third Interval inspection program has not been approved at this time.

Unit 3 (IWE)
(See Notes)

Interval 2

Start Date 07/15/2005	07/15/2008	07/15/2011	End Date 07/15/2014
1st Period		2nd Period (Note 5)	3rd Period
Outage 1 (EOC 22)		Outage 3 (EOC 24)	Outage 5 (EOC 26) Note 4
Outage 2 (EOC 23)		Outage 4 (EOC 25)	Outage 6 (EOC 27)

Interval 3*

Start Date 07/15/2014	07/15/2018	07/15/2021	End Date 07/14/2024
1st Period		2nd Period	3rd Period
Outage 1 (EOC 28)		Outage 3 (EOC 30)	Outage 4 (EOC 31)
Outage 2 (EOC 29)			Outage 5 (EOC 32)

* The scheduled dates for the Third Containment In-service Inspection Intervals are proposed dates in that the Third Interval inspection program has not been approved at this time.

If the IWE-2500, Table IWE-2500-1, Category E-A, Item E1.11 examination is to be credited towards satisfying the examinations required by 10 CFR 50 Appendix J, the examination shall be performed during the refueling outage during which a Type A test is to be performed, prior to the start of the Type A test. Duke Energy intends to credit ASME Section XI, Table IWE-2500-1, Item E1.11 visual exams towards satisfying the requirements of 10 CFR 50 Appendix J.

IWL - Concrete Components And Post-Tensioning Systems

In accordance with TS 5.5.2, accessible concrete surfaces and post-tensioning system component surfaces of the concrete containment shall be visually examined prior to initiating SR 3.6.1.1 Type A test. These visual examinations, or any portion thereof, shall be performed no earlier than 90 days prior to the start of refueling outages in which Type A tests will be performed. The validity of these visual examinations will be evaluated should any event or condition capable of affecting the integrity of the containment system occur between the completion of the visual examinations and the Type A test.

When possible, Duke Energy intends to credit the IWL concrete examinations towards meeting the above TS requirement. IWL concrete and post-tensioning system examinations and tests are also performed in accordance with the schedule provided in the table below.

Second/Third Containment In-service Inspection Interval
Unit 2 (IWL)
(See Notes)

Interval 2

IWL Period 1:	6/22/07 – 6/22/09	(35th Year Exams)
IWL Period 2:	6/22/12 – 6/22/14	(40th Year Exams)

Interval 3

IWL Period 1:	6/22/17 – 6/22/19	(45th Year Exams)
IWL Period 2:	6/22/22 – 6/22/24	(50th Year Exams)

Unit 3 (IWL)
(See Notes)

Interval 2

IWL Period 1:	5/7/08 – 5/7/10	(35th Year Exams)
IWL Period 2:	5/7/13 – 5/7/15	(40th Year Exams)

Interval 3

IWL Period 1:	5/7/18 – 5/7/20	(45th Year Exams)
IWL Period 2:	5/7/23 – 5/7/25	(50th Year Exams)

ONS Unit 2 Notes:

1. During ISI Interval 1, examinations of the Unit 2 concrete surfaces were completed on 12/15/99 (and again by 12/15/05), as permitted by 10CFR50.55a(g)(6)(ii)(B)(2) (subsequently revised), which read "The date of the first examination of concrete must be used to determine the 5-year schedule for subsequent examinations subject to the provisions of IWL-2410(c)." The provisions of 10CFR50.55a(g)(6)(ii)(B)(2) were used to permit these examinations to be scheduled in late 1999 in conjunction with refueling outage 2EOC17, instead of performing the examinations between 6/22/97 and 6/22/99, as required by IWL- 2410(a) and IWL-2410(c). Because 10CFR50.55a(g)(6)(ii)(B)(2) has been revised and no longer provides this alternative, Duke Energy believes that it is acceptable to comply with either schedule previously permitted, provided no more than 5 years (+/- 12 months) has elapsed between successive concrete examinations. As such, Duke Energy has elected to perform the concrete examinations during ISI Interval 2 in accordance with the requirements of IWL-2410.

2. IWL Period 1 for Unit 2 unbonded post-tensioning system examinations is based on a repeating 5 year schedule (+/- 12 months) following the completion of the containment Structural Integrity Test, as required by IWL-2410 and IWL-2420.

The Unit 2 Structural Integrity Test was completed on 6/22/1973. Initial post-tensioning operations were completed in December, 1971. Subsequent unbonded post-tensioning system examinations shall comply with this schedule.

3. IWE Examinations are scheduled for the Second Inspection Interval in accordance with ASME Section XI Inspection Plan B, Table IWE-2412-1, as modified in accordance with the provisions of Duke Energy Corporation Request for Alternative Serial #03-GO-010.

4. ISI Interval 2 has been reduced by 12 months, as permitted by IWA-2430(d)(1).

5. IWE Period 2 has been reduced by 12 months, as permitted by IWA-2430(d)(3).

ONS Unit 3 Notes:

1. The IWL Periods for Unit 3 are based on a repeating 5 year schedule (+/- 12 month) following the completion of the containment Structural Integrity Test, as required by IWL-2410 and IWL-2420. The Unit 3 Structural Integrity Test was completed on 5/07/1974. Initial post-tensioning operations were completed in June, 1973.

2. IWE Examinations are scheduled for the Second Inspection Interval in accordance with ASME Section XI Inspection Plan B, Table IWE-2412-1, as modified in accordance with the provisions of Duke Energy Corporation Request for Alternative Serial #03-GO-010.

3. ISI Interval 2 has been reduced by 12 months, as permitted by IWA-2430(d)(1).

4. IWE Period 2 has been reduced by 12 months, as permitted by IWA-2430(d)(3).

5. Although the 24 month window for IWL Period 2 extends beyond the ISI Interval 2 end date of 07/15/2014, examinations/tests performed between 07/15/2014 and 05/07/2015 for IWL Period 2 shall be performed in accordance with the requirements of the 2nd Interval Containment ISI Plan.

4.2 Containment Surfaces Subject To Augmented Inspections

In accordance with the ONS Unit 2 and Unit 3 "Second Interval Containment In-service Inspection Plan," the following augmented inspections are currently required to be performed each Inspection Period. As noted in the table, the most recent examination results have been determined to be acceptable in all cases. Following the Augmented Inspection Table is a discussion of those examinations that required evaluation in accordance with the requirements of Section XI, IWE and the results. All other examination results (including augmented examinations) were acceptable by examination.

Please note that the scope of augmented examinations for the 3rd Containment ISI Interval have not yet been determined and may vary from those listed below. The scope of augmented examinations (IWE-2500, Table IWE-2500-1, Examination Category E-C)

for the 3rd Inspection Interval shall be determined in accordance with requirements of the applicable Section XI Code of Record to be used during the 3rd Containment ISI Interval.

Second Interval Containment In-service Inspection Plan
ONS Unit 2 Augmented Inspections

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E04.11.0001	2-SCV-001	Visible Surfaces	VT-1 (Metal Containment)	Examination is limited to surfaces at embedment zones within 2" of the basement floor at elevation 777+6 (Nom.) at accessible locations shown on inspection drawings. Added as a result of PIPs 0-O96-2414 and 1-O99-2317. See Note 2.	Acceptable
E04.11.0002	2-MOBR-001	Moisture Barrier	VT-1 (Metal Containment)	Added as a result of PIPs 0-O96-2414 and 1-O99 2317. May be performed in conjunction with Item E1.30 examination each Period. See Note 2. This is a moisture barrier (sealant) installed at the containment liner plate embedment zone.	Acceptable
E04.11.0003	2-MOBR-005	Moisture Barrier	VT-1 (Metal Containment)	Added as a result of PIPs 0-O96-2414 and 1-O99-2317. May be performed in conjunction with Item E1.30 examination each Period. See Note 2. This is a moisture barrier (sealant) installed at the containment liner plate embedment zone.	Acceptable
E04.11.0004	2-MOBR-010	Moisture Barrier	VT-1 (Metal Containment)	Added as a result of PIPs 0-O96-2414 and 1-O99-2317. May be performed in conjunction with Item E1.30 examination each Period. See Note 2. This is a moisture barrier (sealant) installed at the containment liner plate embedment zone.	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E04.11.0005	2-SCV-011	Visible Surfaces	VT-1 (Metal Containment)	Examination is limited to surfaces of the containment liner plate within inspection port located at azimuth 235° on the basement floor at elevation 777'+6." Note: Inspection port plug must be removed to permit visual examination (See drawing O-1067A). Added as a result of PIP O-96-2414. See Note 2.	Acceptable
E4.12.0001	2-GRID-001	Surface Area Grid	UT	Examination is limited to surfaces of the containment liner plate within inspection port located at azimuth 235° on the basement floor at elevation 777'+6". Note: Inspection port plug must be removed to permit examination (See drawing O-1067-A). Added as a result of PIP O-96-2414. See Notes 2 and 6.	Acceptable
E4.12.0002	2-GRID-A159	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0003	2-GRID-A160	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0004	2-GRID-A161	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0005	2-GRID-A162	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E4.12.0006	2-GRID-A163	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0007	2-GRID-A164	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0008	2-GRID-A165	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0009	2-GRID-A166	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0010	2-GRID-A167	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0011	2-GRID-A168	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0012	2-GRID-A204	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0013	2-GRID-A205	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E4.12.0014	2-GRID-A206	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0015	2-GRID-A207	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0016	2-GRID-A208	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0017	2-GRID-A210	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0018	2-GRID-A211	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0019	2-GRID-A212	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0020	2-GRID-A213	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0021	2-GRID-A214	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable

ONS Unit 3 Augmented Inspections

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E04.11.0001	3-SCV-001	Visible Surfaces	VT-1 (Metal Containment)	Examination is limited to surfaces at embedment zones within 2" of the basement floor at elevation 777+6 (Nom.) at accessible locations shown on inspection drawings. Added as a result of PIPs 0-O96-2414 and 1-O99-2317. See Note 2.	Acceptable
E04.11.0002	3-MOBR-001	Moisture Barrier	VT-1 (Metal Containment)	Added as a result of PIPs 0-O96-2414 and 1-O99 2317. May be performed in conjunction with Item E1.30 examination each Period. See Note 2. This is a moisture barrier (sealant) installed at the containment liner plate embedment zone.	Unacceptable during 3EOC22 Exam. Corrective Actions taken to restore moisture barrier. Subsequent exam was acceptable.
E04.11.0003	3-MOBR-005	Moisture Barrier	VT-1 (Metal Containment)	Added as a result of PIPs 0-O96-2414 and 1-O99-2317. May be performed in conjunction with Item E1.30 examination each Period. See Note 2. This is a moisture barrier (sealant) installed at the containment liner plate embedment zone.	Acceptable
E04.11.0004	3-MOBR-010	Moisture Barrier	VT-1 (Metal Containment)	Added as a result of PIPs 0-O96-2414 and 1-O99-2317. May be performed in conjunction with Item E1.30 examination each Period. See Note 2. This is a moisture barrier (sealant) installed at the containment liner plate embedment zone.	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E04.11.0005	3-SCV-011	Visible Surfaces	VT-1 (Metal Containment)	Examination is limited to surfaces of the containment liner plate within inspection port located at azimuth 30° on the basement floor at elevation 777'+6." Note: Inspection port plug must be removed to permit visual examination (See drawing O-1067A). Added as a result of PIP O-96-2414, and PIP O-06-06328. See Note 2.	Acceptable
E04.11.0006	3-SCV-011	Visible Surfaces	VT-1 (Metal Containment)	Examination is limited to surfaces of the containment liner plate within inspection port located at azimuth 30° on the basement floor at elevation 777'+6." Note: Inspection port plug must be removed to permit visual examination (See drawing O-1067A). Added as a result of PIP O-96-2414, and PIP O-06-06328. See Note 2.	Acceptable
E04.11.0007	3-SCV-011	Visible Surfaces	VT-1 (Metal Containment)	Examination is limited to surfaces of the containment liner plate within inspection port located at azimuth 30° on the basement floor at elevation 777'+6." Note: Inspection port plug must be removed to permit visual examination (See drawing O-1067A). Added as a result of PIP O-96-2414, and PIP O-06-06328. See Note 2.	Scheduled for 3EOC27
E4.12.0001	3-GRID-001	Surface Area Grid	UT	Examination is limited to surfaces of the containment liner plate within inspection port located at azimuth 30° on the basement floor at elevation 777'+6". Note: Inspection port plug must be removed to permit examination (See drawing O-1067-A). Added as a result of PIP O-96-2414, and PIP O-06-06328. See Note 2.	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E4.12.0002	3-GRID-A159	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0003	3-GRID-A160	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0004	3-GRID-A161	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0005	3-GRID-A162	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0006	3-GRID-A163	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0007	3-GRID-A164	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0008	3-GRID-A165	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E4.12.0009	3-GRID-A166	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0010	3-GRID-A167	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0011	3-GRID-A168	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0012	3-GRID-A204	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0013	3-GRID-A205	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0014	3-GRID-A206	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0015	3-GRID-A207	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable

Item Number	Component ID	Component Description	Inspection/ NDE Required	Comments/Miscellaneous Code Requirements	Examination Results
E4.12.0016	3-GRID-A208	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0017	3-GRID-A210	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0018	3-GRID-A211	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0019	3-GRID-A212	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0020	3-GRID-A213	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable
E4.12.0021	3-GRID-A214	Surface Area Grid	UT	Added as a result of PIP O-08-01395. See Notes 2 and 6. Location is at containment liner plate embedment zone beneath Equipment Hatch, adjacent to Shielding Wall "C".	Acceptable

The following notes from the Second Interval Containment Inservice Inspection Plan and Problem Investigation Program (PIP) documents are referenced in the Comments column in the table above and are included here for additional information.

Note 2. Exam may be discontinued after 2 consecutive periods if the requirement of IWE-2420(c) has been met.

Note 6. Accessible surfaces of the containment metallic liner plate shall be examined and the location of the minimum wall thickness shall be located using the coordinate system shown on applicable ISI drawing. Subsequent examinations need only be performed at the identified minimum wall thickness location.

PIP Report O-99-2317, Degradation of moisture barrier:

This report documents adverse conditions observed on Unit 1 moisture barriers at the containment liner plate embedment zone. A summary of the observed conditions, evaluations conducted, and corrective actions is documented in a letter to the NRC, dated October 13, 1999 [submitted pursuant to 10 CFR 50.55a(b)(2)(x)(A) - now 10 CFR 50.55a(b)(2)(ix)(A)].

PIP Report O-96-2414, Majority of sealant along basement slab/liner plate interface and between edge of slab and columns, walls, and foundations is missing or degraded:

This report documents the results of inspections performed by site engineering during which degradation of moisture barriers (sealant) was observed at the interface between the containment liner plate and the interior concrete base slab in Units 1 and 3. Sealant degradation was also noted at other interior joints in the base slab concrete. As a result of these observed conditions, moisture barriers were corrected and permanent (removable) inspection ports were added in the base concrete slab at the containment liner plate interface to allow for continued monitoring of conditions immediately behind the liner plate/base slab concrete interface. Subsequent examination of these areas has been performed in accordance with ASME Code, Section XI, IWE-2500, Table IWE-2500-1, Examination Category E-C, and the results of these examinations performed during the Second Containment ISI Interval have been acceptable.

PIP Report O-08-01395, Documentation of Containment Integrity Assessment results from PIP G-06-00465:

During Steam Generator Replacement Project activities, hydrolazing was used to remove concrete from the containment at the location of the temporary construction opening. During this activity, a significant amount of water was introduced into the space between the liner plate and the interior surface of the concrete, beneath the temporary opening. This additional water could increase the risk of potential corrosion of the liner plate in these areas where any gaps exist between the concrete and the containment liner plate. To address this concern, the ONS Containment ISI Plan was revised to add ultrasonic thickness measurement of liner plate areas beneath the repaired opening in accordance with the ASME Code, Section XI, Category E-C, Item E4.12. Locations of wall thickness examinations are identified in the ONS Containment ISI Plan. Results of these examinations performed during the Second Containment ISI Interval have revealed no detectable wall thickness loss.

4.3 Recent IWE/IWL Inspection Results (Since start of Inspection Interval 2 on July 15, 2005)

The following is a summary of results of examinations that required evaluation in accordance with the requirements of Section XI, IWE and IWL. Unless otherwise noted, all other examination results (including augmented examinations) were acceptable by examination.

IWL Examination Results:

During the ONS Unit 2 35th year post-tensioning system surveillance, the following conditions were observed:

1. The absolute difference between the amount of corrosion protection medium removed and the amount replaced exceeded 10% of the tendon net duct volume for the following tendons. All tendons where the net volume of grease installed exceeded amount removed by 10% of the net duct volume of the sheath were found to have adequate grease coverage on anchorage components and no active corrosion was observed. In over 12 years of tendon surveillances, it has been observed that if tendon hardware is adequately coated with protection medium, the sheath need not be 100% filled to prevent corrosion. No repair/replacement is required. No additional examinations are required. All other examination and test results for the tendons identified below were acceptable.

Tendon Mark No.	Difference Between Volume Installed vs. Volume Removed (% of Net Duct Volume)
24H105	16.4
13H74	14.9
62H68	17.2
1D43	13.7
3D53	11.1
3D05	22.2
2D42	17.7

2. Tendon 2D42 tendon anchorage area was examined with the following indication. Segregation was noted in the outer surface of the Ring Girder or on the face of tendon pocket. Segregation of concrete in these areas is common due to the complexity of the original formwork. No reduction in structural capacity is caused by this segregation. No repair/replacement is required. No additional examinations are required.

During the ONS Unit 3 35th year post-tensioning system surveillance, the following conditions were observed:

1. Tendon 35H17 was found to contain two gallons of free water. The water content of the grease sample was 12% by weight, the corrosion level of the anchorage components was not significant (met the procedure acceptance standards). The pH of the water collected was 9.48 which is highly basic. There is no

reduction in area of the tendon. No repair/replacement is required. No additional examinations are required.

Tendon 62H01 (at Tendon End #2) was found to contain one gallon of free water. The water content of the grease sample was 8.3% by weight, and the corrosion level of the anchorage components at End #2 was not significant (met the procedure acceptance standards). The ph of the water collected was 10.04 which is highly basic. All other tests and exams (including tests on the grease collected from this tendon end) were acceptable.

2. For replacement tendon 35H58, the reserve alkalinity was 4.40 at End 1 and 53.0 at End 2. This is obviously due to residual 2090P grease in the sheath at End 1 when the sample was taken.

   Note: The reserve alkalinity for all grease samples tested met the procedure acceptance standards. Tendon 35H58 was specifically identified because it had been replaced during the Steam Generator Replacement Project and the tendon sheath had been refilled with 2090-P4 grease at that time.

3. The absolute difference between the amount of corrosion protection medium removed and the amount replaced exceeded 10% of the tendon net duct volume for the following tendons. All tendons where the net volume of grease installed exceeded amount removed by 10% of the net duct volume of the sheath were found to have adequate grease coverage on anchorage components and no active corrosion was observed. No repair/replacement is required. No additional examinations are required. All other examination and test results for the tendons identified below were acceptable.

Tendon Mark No.	**Difference Between Volume Installed vs. Volume Removed (% of Net Duct Volume)**
23V07	15.0
34V24	12.4
2D33	46.8
1D04	60.6

4. Tendon 23V07, 34V27, and 46H66 anchorage areas were examined and all reported cracking occurred in the unreinforced curb area surrounding the baseplate (at top ends of tendons). There is no effect on the load bearing capacity of the baseplate. No repair/replacement is required. No additional examinations are required.

5. Tendon 1D04, 2D16 and 1D47 anchorage areas were examined and cracking was noted in the outer surface of the Ring Girder or on the face of tendon pockets. These areas are very lightly reinforced and tendon loads alone would have caused cracking in these areas and in these patterns. There is no reduction in the load carrying capacity of the baseplates. No repair/replacement is required. No additional examinations are required.

IWE Examination Results:

The following examination results required evaluation and were documented in Duke Energy's Problem Investigation Program (PIP).

1. During refueling outage 2EOC25 (Interval 2, Period 3), the following conditions were observed:

   PIP Report O-11-12615 documented eight nuts missing on hinges of personnel air lock inner door and two nuts not in contact with the hinge plate at different locations.

   During VT-1 inspection of the Unit 2 Personel Air Lock under Work Order 01934640-01, QC noted several discrepancies as listed below:

   1) Eight nuts are missing on hinges of the personnel air lock inner door at various locations.

   2) There are two nuts that are not in contact with the hinge plate in two different locations.

   Engineering identified that Drawing OM-100-0276-001 shows the bolts reported as missing nuts are leveling bolts. These leveling bolts do not require nuts, therefore the missing nuts and nuts not in contact with the hinge plate are acceptable. No further evaluation was required.

   PIP Report O-11-13053 documented lack of full thread engagement and missing washers identified during ISI visual examinations of ONS Unit 2 Reactor Building electrical penetration bolted connections.

   When performing the ONS Unit 2EOC25 IWE Inservice Inspection VT-1 examinations of Reactor Building electrical penetration bolted connections the following unacceptable conditions were recorded:

   Item # E08.10.0030 Component ID # 2-PENE-EA10 - All Bolts are flush with nuts and do not have full thread engagement.

   Item # E08.10.0031 Component ID # 2-PENE-EA11 - All Bolts are flush with nuts and do not have full thread engagement.

   Item # E08.10.0050 Component ID # 2-PENE-ED1 - Two Bolts are missing washers.

   Item # E08.10.0067 Component ID # 2-PENE-EF2 - All Bolts are flush with nuts and do not have full thread engagement.

   Item # E08.10.0068 Component ID # 2-PENE-EF4 - All Bolts are flush with nuts and do not have full thread engagement.

Component ID # 2-PENE-ED1: The field inspection (reinspection) shows that all washers are in place; therefore it is acceptable without further evaluation.

The other 4 components ID # 2-PENE-EA10, EA11, EF2 and EF4 are having issue with all bolts' end flushing with all nuts' surface (12 bolts - .875" diameter; for 12" diameter sleeve 150# rating welding neck flange), and they too are acceptable for continuing service because drawing OM-363-0059-002 note 16 for similar penetration in the Reactor Building stated that the end of the bolt can be .0625" below the nut face. The field inspection confirmed that all the nuts are essentially flush with the bolt ends.

Sufficient thread engagement is needed in order to make sure that there is enough axial load on the bolt to perform its intended function. During a postulated accident event, the pressure inside reactor building produces only compression load on the welding neck flanges which is a favorable condition on the bolts. Since these penetrations are not leaking, the current nut thread engagements are acceptable.

2. During refueling outage 3EOC26 (Interval 2, Period 3), the following conditions were observed:

PIP Report O-12-05105 documented the following discrepancies that were recorded during VT-1 examinations on three Penetration Bolted Connections required by the Containment ISI plan for the ONS 3EOC26 outage:

1) Item Number: E08.10.0001 Component ID Number: 3-PENE-C090. This VT-1 examination is on the Personnel Air Lock Inner Door Latching Bracket Bolting. The bolts have what appears to be the original lock washers plus a rusty oversized lock washer on the bolts.

2) Item Number: E08.10.0032 Component ID Number: 3-PENE-EA9. This is a VT-1 examination of the bolted connection on penetration EA-9. All the bolts do not have full thread engagement. Up to 5/32" or two threads not fully engaged.

3) Item Number: E08.10.0033 Component ID Number: 3-PENE-EA10. This is a VT-1 examination of the bolted connection on penetration EA-10. All the bolts do not have full thread engagement. Up to 5/32" or two threads not fully engaged.

The air lock and penetrations were inspected by engineering on 5/23/12. The results of these inspections are documented in the PIP, as follows:

1) The air lock door bolting is acceptable as is. The additional lock washer is not an issue.

2) and 3) The penetration bolts appear to be lacking up to two threads around the bottom of the penetration. This is also acceptable. During a LOCA event these flanges would be in compression.

No further evaluation was determined to be necessary.

4.4 Loss of Tendon Prestress

PIP G-06-00465 documents the results of the Containment Integrity Assessment, which was approved on March 13, 2008. Section 12.6, Loss of Tendon Prestress due to Wire Relaxation, Concrete Creep/Shrinkage, states that "Oconee operating experience has not detected tendon prestress loss in excess of prescribed limits since the initial implementation of the Containment ISI Program."

Tendon prestress losses will continue to be monitored through the performance of testing required by the ASME Code, Section XI, Subsection IWL.

4.5 Inaccessible Areas

For Class MC and CC applications, Duke Energy shall evaluate the acceptability of inaccessible areas when conditions exist in accessible areas that could indicate the presence of or result in degradation to such inaccessible areas. For each inaccessible area identified, Oconee Nuclear Station shall provide the following in the ISI Summary Report, as required by 10 CFR 50.55a(b)(2)(viii)(E) and 10 CFR 50.55a(b)(2)(ix)(A):

- A description of the type and estimated extent of degradation, and the conditions that led to the degradation;
- An evaluation of each area, and the result of the evaluation, and;
- A description of necessary corrective actions.

Duke Energy has not needed to implement any new technologies to perform inspections of any inaccessible areas at this time. However, Duke Energy actively participates in various nuclear utility owners groups and ASME Code committees to maintain cognizance of ongoing developments within the nuclear industry. Industry operating experience is also continuously reviewed to determine its applicability to ONS. Adjustments to inspection plans and availability of new, commercially available technologies for the examination of the inaccessible areas of the containment would be explored and considered as part of these activities.

4.6 Containment Coatings Program

The primary purpose of containment coatings, from an ILRT perspective, is to provide corrosion protection for the carbon steel liner plate to allow it to maintain its pressure retaining capability. The safety related coatings applied to the liner plate at Duke Energy nuclear stations are considered to be Service Level I, defined in Nuclear System Directive (NSD) 318, "Coating Program," as coatings applied to all exposed surface areas within the primary containment facilities which are required to withstand a Loss-Of-Coolant Accident (LOCA) environment.

Duke Energy has implemented controls for the procurement, application and maintenance of Service Level I protective coatings used inside containment in a manner that is consistent with the licensing basis and regulatory requirements applicable to ONS.

The original liner plate coatings, consisting of a prime coat of inorganic zinc (IOZ) and a modified phenolic finish coat, were supplied by the Carboline Company and have been successfully tested by Carboline to withstand anticipated LOCA conditions. Carboline also supplies the Service Level I substitute coatings (epoxy mastic) now used for new applications and repair/replacement activities inside containment. The substitute coatings when used for maintenance over the original coatings were tested, with the appropriate documentation, to demonstrate a qualified coating system.

Condition assessments of Service Level I coatings used inside containment are performed during each refueling outage. If localized areas of degradation are identified, those areas are evaluated and scheduled for repair or replacement as necessary.

The observed liner plate coating degradation at ONS in the last ten years has typically consisted of the finish coat pulling away, or delaminating, from the IOZ primer. This delamination does not pose a liner plate corrosion protection issue because the remaining IOZ provides a sufficient corrosion barrier.

At the end of the last Unit 2 refueling outage (2EOC25 – Fall 2011), there was approximately 1360 ft^2 of degraded liner plate coatings remaining in containment which is less than 2% of the total amount of liner plate coatings (77,583 ft^2) . It should be noted there was no visible corrosion indicated in the minimal amount of degraded liner plate coatings.

There was approximately 1030 ft^2 of liner plate related exposed zinc remaining in containment after 2EOC25. As noted above, exposed zinc continues to provide a sufficient corrosion barrier so there is no visible corrosion present.

The above values for liner plate related degraded coatings and exposed zinc were obtained from the 2EOC25 Coating Inspection Form approved 11/10/2011.

At the end of the last Unit 3 refueling outage (3EOC26 – Spring 2012), there was approximately 2795 ft^2 of degraded liner plate coatings remaining in containment which is less than 4% of the total amount of liner plate coatings (77,583 ft^2) . It should be noted there was no visible corrosion indicated in the minimal amount of degraded liner plate coatings.

There was approximately 981 ft^2 of liner plate related exposed zinc remaining in containment after 3EOC26. As noted above, exposed zinc continues to provide a sufficient corrosion barrier so there is no visible corrosion present. The above values for liner plate related degraded coatings and exposed zinc were obtained from the 3EOC26 Coating Inspection Form approved 05/30/2012.

In summary, there are negligible amounts of liner plate coatings degradation in ONS Unit 2 and Unit 3, and they pose minimal to no corrosion protection issues for the liner plate. As discussed above, condition assessments of our containment coatings are performed every refueling outage. ONS's operating experience supports no coatings related containment structure leakage will result from extending the next ONS Unit 2 and Unit 3 ILRTs to 2EOC27 in Fall 2015 and 3EOC28 in Spring 2016, respectively.

4.7 Previous ILRT Results

The last ONS Unit 2 and Unit 3 ILRTs were completed on May 29, 2004 and December 21, 2004, after the installation of the replacement steam generators and closure of the construction openings. Previous ILRT testing confirmed that the ONS Unit 2 and Unit 3 containment structure leakage is acceptable, with considerable margin, with respect to the TS acceptance criterion of 0.2% of containment air weight at the design basis loss of coolant accident pressure (L_a). Since the last two ONS Unit 2 and Unit 3 Type A as-found results, as shown in the following table, were less than 1.0 L_a, a test frequency of at least once per 10 years would be in accordance with NEI 94-01, Revision 0.

No modifications that require a Type A test are planned prior to 2EOC27 and 3EOC28 when the next Type A tests will be performed under this proposed change. Any unplanned modifications to the containment prior to the next scheduled Type A test would be subject to the special testing requirements of Section IV.A of 10 CFR 50, Appendix J. There have been no pressure or temperature excursions in the containment which could have adversely affected containment integrity. There is no anticipated addition or removal of plant hardware within containment which could affect leak-tightness that would not be challenged by local leak rate testing. Following the approval of this licensing amendment, the next ONS Unit 2 ILRT must be performed on or before December 29, 2015 and the next ONS Unit 3 ILRT must be performed on or before July 21, 2016.

ILRT Performance Results

ONS Unit 2 ILRT Completion Date	(As-found) / As-left results (wt %/day UCL) Note 1, 2	Allowable TS criterion (wt %/day) (≤ 0.75 La)	Test Pressure (psig)
5/29/04	(0.0937) 0.0920	0.1875	60
6/11/93	(0.1509) 0.1509	0.1875	60
10/17/90	(0.1178) 0.1178	0.132	29.5
3/28/88	0.0703	0.132	29.5
11/19/83	0.1209	0.132	29.5
6/2/80	0.0595	0.132	29.5
8/1/77	0.0969	0.132	29.5
7/5/73	0.00233	0.25	59
(Initial ILRT)	0.00828	N/A	29.5

ONS Unit 3 ILRT Completion Date	(As-found) / As-left results (wt %/day UCL) Note 1, 2	Allowable TS criterion wt %/day (≤ 0.75 La)	Test Pressure (psig)
12/21/04	(0.0715) 0.0715	0.1875	59
9/11/92	(0.1196) 0.1094	0.1875	59
12/9/89	(0.1158) 0.1188	0.132	29.5
3/18/87	(0.1148) 0.1054	0.132	29.5

ONS Unit 3 ILRT Completion Date	(As-found) / As-left results (wt %/day UCL) Note 1, 2	Allowable TS criterion wt %/day (≤ 0.75 La)	Test Pressure (psig)
5/16/84	(0.1081) 0.1080	0.132	29.5
2/18/81	0.0656	0.132	30
7/3/78	0.1029	0.132	29.5
5/7/74	(0.0215)	0.25	59
(Initial ILRT)	(0.0248)	N/A	29.5

Note 1: The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.20% of the containment air weight per day following the adoption of alternate source term in 2006. Prior to this the allowable containment leakage rate was 0.25% of the containment air weight per day.

Note 2: "As Found" Evaluation of Containment

In a letter dated July 27, 1989 to Duke Power Company, the Director of NRR concluded that "As Found" Type A testing is not an explicit requirement of the regulations. Therefore, the "As Found" evaluation in accordance with NRC Information Notice No. 85-71, "Containment Integrated Leak Rate Tests," does not currently apply to Oconee Nuclear Station.

However, 10 CFR 50 Appendix J, Section IILA.I.(a) requires that, "during the period between the initiation of the containment inspection and the performance of the Type A test, no repairs or adjustments shall be made so that the containment can be tested in as close to the 'as is' condition as practical." The "As Found" Type A result is determined by adding the total leakage savings resulting from the repair or adjustment to the "As Left" Type A test result. These corrections are the difference between the pre-repair leakages (but not negatative), calculated in the minimum pathway case for each penetration.

Reference July 27, 1989 Letter to Mr. H. B. Tucker, Vice President Duke Power Company from Mr. Thomas E. Murley, Director Office of Nuclear Regulation, Determination of Backfit Appeal Regarding Containment Integrated Leakage Rate Testing at Oconee, McGuire, and Catawba Nuclear Station (TACS 68443-68449).

4.8 Type B and C Testing Program

The ONS Units 2 and Unit 3 Appendix J, Type B and Type C testing program requires testing of electrical penetrations, airlocks, hatches, flanges, and valves within the scope of the program as required by 10 CFR 50, Appendix J, Option B and TS 5.5.2. The Type B and Type C testing program consists of local leak rate testing of penetrations with a resilient seal, double gasket man ways, hatches and flanges, and containment isolation valves that serve as a barrier to the release of the post-accident containment atmosphere.

On July 28, 2011, the NRC issued Amendment No. 377 to Facility Operating License No. DPR-47 for ONS Unit 2 and No. 376 to Facility Operating License No. DPR-55 for

ONS Unit 3. This amendment revised the TS to adopt technical specification task force technical change Traveler 52, Revision 3, to implement 10 CFR Part 50, Appendix J, Option B for Type B and C leak-rate tests. Prior to this amendment, the Type B and C testing program was conducted in accordance with 10 CFR 50 Appendix J, Option A. Under Option A, all penetrations were tested at the minimum frequency of 30 months.

A review of the Type B and Type C test results from May 2004 through January 2012 for ONS Unit 2 and December 2004 through June 2012 for ONS Unit 3 and their comparison with the allowable leakage rate was performed. The currently established Type B and Type C leakage acceptance criterion is 212,402 standard cubic centimeters per minute (sccm). The maximum pathway leak rate summary totals for this time period show maximum pathway leakage to be historically less than 25% of the limit for ONS Unit 2 and less than 15% for ONS Unit 3 as shown in the following table, Leak Rate History And Reactor Building Leak Rate Verification Results (PT/2&3/A/0150/034). It should be noted that all LLRT testing has been performed in accordance with Option A since the 2004 ILRTs.

As discussed in NUREG-1493, Type B and Type C tests can identify the vast majority (greater than 95%) of all potential containment leakage paths. This amendment request does not affect the scope, performance, or scheduling of Type B or Type C tests. Type B and Type C testing will continue to provide a high degree of assurance that containment integrity is maintained.

The fall 2011 outage was the first ONS Unit 2 refueling outage and the spring 2012 outage was the first ONS Unit 3 refueling outage since the adoption of Option B for Type B and C tests on July 28, 2011. Transition from the prescriptive testing requirements of Option A to the performance-based requirements of Option B is in progress and will include the following: (1) The establishment of extended test intervals for Type B and C tested components shall be performed in accordance with NEI 94-01, Revision 0, Sections 10.2.1.2 and 10.2.1.4 for Type B and Sections 10.2.3.2 and 10.2.3.4 for Type C tested components. (2) As-found testing for Type B and Type C tested components shall also be performed for those components that will establish extended test intervals in accordance with NEI 94-01, Revision 0, Section 10.2.1.3 for Type B and Section 10.2.3.3 for Type C tested components. (3) Containment airlocks shall be tested in accordance with NEI 94-01, Revision 0, Section 10.2.2.

LEAK RATE HISTORY AND REACTOR BUILDING
LEAK RATE VERIFICATION RESULTS (PT/2&3/A/0150/034)

Unit 2

Date	Result (sccm)	Acceptance Criteria (sccm)	Percentage of Acceptance Criteria
9/5/12	11,879	212,402	5.59%
4/9/12	18,304	212,402	8.62%
1/24/12	18,342	212,402	8.64%
1/17/12	13,342	212,402	6.28%
11/14/11	13,332	212,402	6.28%
11/5/11	14,121	212,402	6.65%
9/27/11	13,960	212,402	6.57%
8/27/11	15,610	212,402	7.35%
4/1/11	14,949	212,402	7.04%
3/9/11	13,179	212,402	6.20%
10/11/10	14,329	212,402	6.75%
9/30/10	14,397	212,402	6.78%
8/23/10	15,047	212,402	7.08%
5/24/10	15,047	212,402	7.08%
5/22/10	16,459.9	212,402	7.75%
5/15/10	22,616	212,402	10.65%
4/22/10	22,526	212,402	10.61%
2/22/10	20,907	212,402	9.84%
2/22/10	21,826	212,402	10.28%
12/2/09	20,907	212,402	9.84%
9/22/09	20,707	212,402	9.75%
8/27/09	21,396	212,402	10.07%
6/10/09	21,290	212,402	10.02%
4/22/09	21,337	212,402	10.05%
12/30/08	21,895	212,402	10.31%
12/8/08	21,753	212,402	10.24%
11/16/08	17,466.6	212,402	8.22%
7/9/08	17,499	212,402	8.24%
5/3/08	18,499	212,402	8.71%
3/24/08	18,499	212,402	8.71%
3/6/08	18,335	212,402	8.63%
2/12/08	18,498	212,402	8.71%
10/10/07	16,718	212,402	7.87%
9/11/07	15,960	212,402	7.51%
5/31/07	17,400	212,402	8.19%
5/26/07	32,568	212,402	15.33%
5/25/07	31,318	212,402	14.74%
4/24/07	31,130	212,402	14.66%
2/12/07	33,610	212,402	15.82%
1/9/07	31,569	212,402	14.86%

Date	Result (sccm)	Acceptance Criteria (sccm)	Percentage of Acceptance Criteria
1/3/07	31,407	212,402	14.79%
8/23/06	29,307	212,402	13.80%
8/16/06	46,287	212,402	21.79%
8/15/06	49,631	212,402	23.37%
8/8/06	50,480	212,402	23.77%
7/5/06	51,880	212,402	24.43%
4/3/06	35,031	212,402	16.49%
3/13/06	34,241	212,402	16.12%
3/9/06	30,674	212,402*	14.44%
11/19/05	26,900	221,262	12.16%
11/17/05	26,896	221,262	12.16%
11/16/05	30,869	221,262	13.95%
10/28/05	31,335	221,262	14.16%
10/20/05	27,022	221,262	12.21%
10/11/05	27,066	221,262	12.23%
9/26/05	28,705	221,262	12.97%
7/11/05	28,705	221,262	12.97%
6/28/05	28,319	221,262	12.80%
5/24/05	20,894	221,262	9.44%
3/22/05	21,594	221,262	9.76%
2/16/05	21,594	221,262	9.76%
1/7/05	21,637	221,262	9.78%
12/26/04	27,839	221,262	12.58%
9/27/04	27,787	221,262	12.56%
8/18/04	37,977	221,262	17.16%
8/10/04	20,767	221,262	9.39%
6/1/04	31,477	221,262	14.23%
5/27/04	32,385	221,262	14.64%

* Alternate Source Term adoption revised acceptance criteria to 212,402 sccm

Unit 3

Date	Result (sccm)	Acceptance Criteria (sccm)	Percentage of Acceptance Criteria
6/26/12	19,413	212,402	9.14%
6/4/12	19,313	212,402	9.09%
3/22/12	20,540	212,402	9.67%
1/25/12	18,564	212,402	8.74%
10/7/2011	26,064	212,402	12.27%
8/19/11	26,108	212,402	12.29%
8/11/2011	26,150	212,402	12.31%
5/4/2011	18,550	212,402	8.73%
3/10/11	19,380	212,402	9.12%
11/16/10	20,980	212,402	9.88%
10/21/10	23,437	212,402	11.03%
10/12/10	23,437	212,402	11.03%
9/30/10	22,037	212,402	10.38%
5/27/10	22,156	212,402	10.43%
4/14/10	20,726	212,402	9.76%
3/12/10	20,128	212,402	9.48%
2/24/10	20,493	212,402	9.65%
2/23/10	20,473	212,402	9.64%
12/2/09	20,473	212,402	9.64%
10/6/09	25,743	212,402	12.12%
8/17/09	25,288	212,402	11.91%
6/17/09	25,268	212,402	11.90%
6/4/09	26,938	212,402	12.68%
5/21/09	26,938	212,402	12.68%
5/17/09	26,938	212,402	12.68%
4/24/09	23,835	212,402	11.22%
4/23/09	30,335	212,402	14.28%
1/12/09	30,709	212,402	14.46%
1/5/09	31,604	212,402	14.88%
8/20/08	28,554	212,402	13.44%
7/30/08	27,499	212,402	12.95%
4/1/08	25,739	212,402	12.12%
3/5/08	25,965	212,402	12.22%
1/10/08	25,265	212,402	11.89%
12/13/07	30,320	212,402	14.27%
10/22/07	25,163	212,402	11.85%
8/15/07	25,208	212,402	11.87%
8/14/07	25,208	212,402	11.87%
7/12/07	25,200	212,402	11.86%
6/5/07	25,100	212,402	11.82%
4/16/07	25,084	212,402	11.81%
10/21/06	22,141	212,402	10.42%
9/19/06	23,186	212,402	10.92%

Date	Result (sccm)	Acceptance Criteria (sccm)	Percentage of Acceptance Criteria
5/28/06	23,689	212,402	11.15%
5/27/06	23,689	212,402	11.15%
5/22/06	27,012	212,402	12.72%
5/12/06	27,104	212,402	12.76%
4/27/06	27,061	212,402	12.74%
4/11/06	27,461	212,402	12.93%
4/10/06	27,461	212,402	12.93%
3/2/06	26,250	212,402*	12.36%
12/28/05	25,940	221,262	11.72%
10/3/05	24,050	221,262	10.87%
8/2/05	23,590	221,262	10.66%
6/22/05	24,380	221,262	11.02%
5/20/05	24,035	221,262	10.86%
3/9/05	23,976	221,262	10.84%
12/23/04	25,377	221,262	11.47%
10/21/04	32,412	221,262	14.65%

* Alternate Source Term adoption revised acceptance criteria to 212,402 sccm

4.9 NRC Information Notice 92-20, Inadequate Local Leak Rate Testing

NRC Information Notice 92-20 was issued to alert licensees to problems with local leak rate testing of two-ply stainless steel bellows used on piping penetrations at some plants. Specifically, local leak rate testing could not be relied upon to accurately measure the leakage rate that would occur under accident conditions since, during testing, the two plies in the bellows were in contact with each other, restricting the flow of the test medium to the crack locations. Any two-ply bellows of similar construction may be susceptible to this problem.

All ONS Unit 2 and Unit 3 piping and ventilation penetrations are of the rigid welded type and are solidly anchored to the Reactor Building wall or foundation slab, thus precluding any requirements for expansion bellows.

4.10 Supplemental Inspection Requirements

Prior to initiating a Type A test, a general visual examination of accessible interior and exterior surfaces of the containment system for structural problems that may affect either the containment structure leakage integrity or the performance of the Type A test is performed. This inspection is typically conducted in accordance with the ONS Unit 2 and Unit 3 Containment In-service Inspection Plan, which implements the requirements of ASME, Section XI, Subsection IWE / IWL.

Identification and evaluation of inaccessible areas are addressed in accordance with the requirements of 10 CFR 50.55a(b)(2)(ix)(A) and 10 CFR 50.55a(b)(2)(viii)(E). Examination of pressure-retaining bolted connections and evaluation of containment

bolting flaws or degradation are performed in accordance with the requirements of 10 CFR 50.55a(b)(ix)(G) and 10 CFR 50.55a(b)(ix)(H), as modified by relief request #03-GO-010. Each ten-year ISI interval is divided into three approximately equal-duration inspection periods for IWE, and 24-month periods for IWL examinations and tests (every 5 years).

Since a 11.6 year ILRT interval spans at least three IWE ISI inspection periods, the frequency of the examinations performed in accordance with the IWE program satisfies the requirement of NEI 94-01, Revision 0, Section 9.2.3.2, to perform the general visual examinations during at least two other outages before the next Type A test, if the Type A test interval is to be extended. Duke Energy intends to credit ASME Section XI Table IWE-2500-1 Item E1.11 visual exams towards satisfying the requirements of 10 CFR 50, Appendix J. This is in accordance with TS 5.5.2, which requires that "Accessible interior and exterior surfaces of metallic pressure retaining components of the containment system shall be visually examined at least three times every ten years, including during each shutdown for SR 3.6.1.1 Type A test, prior to initiating the Type A test."

Since an 11.6 year ILRT interval spans at least two IWL ISI inspection periods, the frequency of the examinations performed in accordance with the IWL program satisfies the frequency requirement of NEI 94-01, Revision 0, Section 9.2.3.2. However, because the Type A Test may not coincide with scheduled IWL examinations, TS 5.5.2 requires that "Accessible concrete surfaces and post-tensioning system component surfaces of the concrete containment shall be visually examined prior to initiating SR 3.6.1.1 Type A test. These visual examinations, or any portion thereof, shall be performed no earlier than 90 days prior to the start of refueling outages in which Type A tests will be performed." When the Type A Test does not coincide with scheduled IWL examinations, the examination of containment accessible concrete surfaces is performed in accordance with applicable site technical procedures, but is not credited towards satisfying the IWL requirements.

The ASME Code, Section XI, IWE and IWL examination requirements, in conjunction with TS 5.5.2, provide assurance that visual examinations of accessible surfaces of the containment shall be conducted at appropriate frequencies between each Type A test.

4.11 Plant-Specific Confirmatory Analysis

The purpose of this analysis is to provide risk insights about extending the currently allowed containment Type A Integrated Leak Rate Test (ILRT) interval by 19 months. The extended test interval is a one-time 19-month increase over the currently approved 10-year test interval. This translates to an extended test interval of 11.6 years. The extension would allow for substantial cost savings as the ILRT could be deferred for an additional scheduled refueling outage for the Oconee Nuclear Station (ONS). The risk assessment follows the guidelines from NEI 94-01, Revision 2A, the methodology used in EPRI TR-104285 the NEI "Interim Guidance for Performing Risk Impact Assessments in Support of One-Time Extensions for Containment Integrated Leakage Rate Test Surveillance Intervals" from November 2001, the methodology used for Calvert Cliffs to estimate the likelihood and risk implications of corrosion-induced leakage of steel liners going undetected during the extended test interval, the methodology used in EPRI 1009325, Revision 2, and the methodology improvements in EPRI 1018243.

The findings of the ONS risk assessment confirm the general findings of previous studies that the risk impact associated with extending the ILRT interval from ten years to 11.6 years is "small." The ONS plant-specific results for extending ILRT interval from the current 10 years to 11.6 years are summarized below:

- Since the ILRT does not impact Core Damage Frequency (CDF), the relevant criterion is Large Early Release Frequency (LERF). The increase in LERF resulting from a change in the Type A ILRT test interval from three in 10 years to one in 11.6 years is very conservatively estimated to be "small."

- An additional assessment of the impact from external events was also performed. In this sensitivity case, the change in the total ONS LERF (including external events) was conservatively estimated to be "small." Similar sensitivity analysis of internal flood events were also performed and resulted in the same conclusions. As such, the estimated change in LERF from sensitivity studies is also determined to be "small."

- The change in Type A test frequency to one per 11.6 years, measured as an increase to the total integrated plant risk for those accident sequences influenced by Type A testing, is 0.021 person-rem/year. EPRI Report No. 1009325, Revision 2-A, states that a very small population dose is defined as an increase of ≤ 1.0 person-rem per year, or ≤ 1% of the total population dose, whichever is less restrictive for the risk impact assessment of the extended ILRT intervals. Moreover, the risk impact when compared to other severe accident risks is "negligible."

- The increase in the conditional containment failure from the three in 10 year interval to one in 11.6 year interval is 0.634%. EPRI Report No. 1009325, Revision 2-A, states that increases in conditional containment failure probability (CCFP) of ≤ 1.5 percentage points is very small. Therefore, this increase is judged to be "very small."

Therefore, increasing the ILRT interval to 11.6 years is considered to be insignificant since it represents a "very small" change to the ONS risk profile.

The NRC, in NUREG-1493, has previously concluded that:

- Reducing the frequency of Type A tests (ILRTs) from three per 10 years to one per 20 years was found to lead to an imperceptible increase in risk. The estimated increase in risk is very small because ILRTs identify only a few potential containment leakage paths that cannot be identified by Type B or Type C testing, and the leaks that have been found by Type A tests have been only marginally above existing requirements.

- Given the insensitivity of risk to containment leakage rate and the small fraction of leakage paths detected solely by Type A testing, increasing the interval between integrated leakage-rate tests is possible with minimal impact on public risk. The impact of relaxing the ILRT frequency beyond one in 20 years has not been evaluated. Beyond testing the performance of containment penetrations, ILRTs also test integrity of the containment structure.

The findings for ONS confirm these general findings on a plant-specific basis considering the severe accidents evaluated for ONS, the ONS containment failure modes, and the local population surrounding ONS.

The insights from this risk analysis support the deterministic analysis showing that there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner of this license request.

5. REGULATORY EVALUATION

5.1 Significant Hazards Consideration

A change is proposed to the Oconee Nuclear Station (ONS) Unit 2 and Unit 3, Technical Specification (TS) 5.5.2, "Containment Leakage Rate Testing Program." The proposed amendment would extend the Type A test required by TS 5.5.2 for ONS Unit 2 and Unit 3 by approximately 19 months.

Duke Energy has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

The proposed exemption involves a one-time extension to the current interval for ONS Unit 2 and Unit 3 Type A containment testing. The current test interval of 120 months (10 years) would be extended on a one-time basis to no longer than approximately 139 months from the last Type A test. The proposed extension does not involve either a physical change to the plant or a change in the manner in which the plant is operated or controlled. The containment is designed to provide an essentially leak tight barrier against the uncontrolled release of radioactivity to the environment for postulated accidents. As such, the containment and the testing requirements invoked to periodically demonstrate the integrity of the containment exist to ensure the plant's ability to mitigate the consequences of an accident, and do not involve the prevention or identification of any precursors of an accident. Therefore, this proposed extension does not involve a significant increase in the probability of an accident previously evaluated.

This proposed extension is for the next ONS Unit 2 and Unit 3 Type A containment leak rate test only. The Type B and C containment leak rate tests would continue to be performed at the frequency currently required by the ONS TS. As documented in NUREG 1493, Type B and C tests have identified a very large percentage of containment leakage paths, and the percentage of containment leakage paths that are detected only by Type A testing is very small. The ONS Unit 2 and Unit 3 Type A test history supports this conclusion.

The integrity of the containment is subject to two types of failure mechanisms that can be categorized as (1) activity based and (2) time based. Activity based failure mechanisms are defined as degradation due to system and/or component modifications or maintenance. Local leak rate test requirements and administrative controls such as configuration management and procedural requirements for system restoration ensure that containment integrity is not degraded by plant modifications or maintenance activities. The design and construction requirements of the containment combined with the containment inspections performed in accordance with ASME Section XI, the Maintenance Rule, and TS requirements serve to provide a high degree of assurance that the containment would not degrade in a manner that is detectable only by a Type A test.

Based on the above, the proposed extension does not significantly increase the consequences of an accident previously evaluated.

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

Response: No.

The proposed amendment to the TS involves a one-time extension to the current interval for the ONS Unit 2 and Unit 3 Type A containment test. The containment and the testing requirements to periodically demonstrate the integrity of the containment exist to ensure the plant's ability to mitigate the consequences of an accident do not involve any accident precursors or initiators. The proposed change does not involve a physical change to the plant (i.e., no new or different type of equipment will be installed) or a change to the manner in which the plant is operated or controlled.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed amendment to the TS involves a one-time extension to the current interval for the ONS Unit 2 and Unit 3 Type A containment test. This amendment does not alter the manner in which safety limits, limiting safety system set points, or limiting conditions for operation are determined. The specific requirements and conditions of the TS Containment Leak Rate Testing Program exist to ensure that the degree of containment structural integrity and leak-tightness that is considered in the plant safety analysis is maintained. The overall containment leak rate limit specified by TS is maintained.

The proposed change involves only the extension of the interval between Type A containment leak rate tests for ONS Unit 2 and Unit 3. The proposed surveillance interval extension is bounded by the 15 year ILRT Interval currently authorized within NEI 94-01, Revision 2A. Type B and C containment leak rate tests would continue to be performed at the frequency currently required by TS. Industry experience supports the conclusion that Type B and C testing detects a large percentage of containment leakage

paths and that the percentage of containment leakage paths that are detected only by Type A testing is small. The containment inspections performed in accordance with ASME Section XI, TS and the Maintenance Rule serve to provide a high degree of assurance that the containment would not degrade in a manner that is detectable only by Type A testing. The combination of these factors ensures that the margin of safety in the plant safety analysis is maintained. The design, operation, testing methods and acceptance criteria for Type A, B, and C containment leakage tests specified in applicable codes and standards would continue to be met, with the acceptance of this proposed change, since these are not affected by changes to the Type A test interval.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

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

5.2 Applicable Regulatory Requirements/Criteria

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met.

10 CFR 50.54(o) requires primary reactor containments for water-cooled power reactors to be subject to the requirements of Appendix J to 10 CFR 50, "Leakage Rate Testing of Containment of Water Cooled Nuclear Power Plants." Appendix J specifies containment leakage testing requirements, including the types required to ensure the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. In addition, Appendix J discusses leakage rate acceptance criteria, test methodology, frequency of testing and reporting requirements for each type of test.

RG 1.163 was developed to endorse NEI 94-01, Revision 0, with certain modifications and additions.

The adoption of the Option B performance-based containment leakage rate testing for Type A testing did not alter the basic method by which Appendix J leakage rate testing is performed; however, it did alter the frequency at which Type A, Type B, and Type C containment leakage tests must be performed. Under the performance-based option of 10 CFR 50, Appendix J, the test frequency is based upon an evaluation that review "as-found" leakage history to determine the frequency for leakage testing which provides assurance that leakage limits will be maintained. The change to the Type A test frequency did not directly result in an increase in containment leakage. Similarly, the proposed change to the Type A test frequency will not directly result in an increase in containment leakage.

Based on the considerations above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will continue to be conducted in accordance with the site licensing

basis, and (3) the approval of the proposed change will not be inimical to the common defense and security or to the health and safety of the public.

5.3 Precedent

This request is similar in nature to the following license amendments authorized by the NRC:

- October 1, 2012 (ML12250A339), for Oconee Nuclear Station, Unit No. 1,
- August 23, 2010 (ML102090137), for Palisades Nuclear Plant,
- July 20, 2009 (ML091540158), for Arkansas Nuclear One, Unit No. 2,
- March 24, 2006 (ML060520032), for Seabrook Station, Unit No. 1,
- December 23, 2005 (ML053190343), for St. Lucie Unit 2,
- June 2, 2003 (ML031320686), for Vermont Yankee Nuclear Power Station, and
- December 29, 1994 (ML011080782), for Nine Mile Point Nuclear Station Unit 1.

5.4 Conclusion

In conclusion, Duke Energy has determined that the proposed change does not require any exemptions or relief from regulatory requirements, other than the TS, and does not affect conformance with any regulatory requirements / criteria.

6. ENVIRONMENTAL CONSIDERATION

The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7. REFERENCES

1. ONS Updated Final Safety Analysis Report – 31 Dec 2011
2. ONS Technical Specifications
3. 10 CFR 50 Appendix J, "Primary Reactor Containment Leakage Testing for Water Cooled Power Reactors"

4. Nuclear Energy Institute, NEI 94-01, Revision 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J"

5. Nuclear Energy Institute, NEI 94-01, Revision 2-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," October 2008

6. NUREG-1493, "Performance-Based Containment Leak-Test Program"

7. Electric Power Research Institute, EPRI TR-104285, "Risk Impact Assessment of Revised Containment Leak Rate Testing Intervals"

8. Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program" September 1995

9. ASME Boiler and Pressure Vessel Code, Section XI, 1992 Edition with the 1992 Addenda.

10. Duke Energy Document O-ISIC2-62-0001, "Oconee Nuclear Station, Units 1, 2 & 3, Second Interval Containment Inservice Inspection Plan" Revision 7

11. Duke Energy Procedure QA-516, "Evaluation of ISI Indications"

12. Duke Power Company Mechanical Systems Engineering Support Program For 10 CFR Part 50-Appendix J, Revision 1

13. Duke Energy Nuclear System Directive: 318, Coating Program, Revision 5

14. Regulatory Guide 1.54, Service Level I, II, and III Protective Coatings Applied to Nuclear Power Plants, Revision 2

15. 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants

16. American National Standards Institute, ANSI N101.2, "Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities," 1972

17. Regulatory Guide 1.82, Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident, Revision 3

18. Oconee Nuclear Station Procedure PT/2&3/A/0150/034, "Leak Rate History And Reactor Building Leak Rate Verification Results"

19. NRC Information Notice 92-20, Inadequate Local Leak Rate Testing

20. Electric Power Research Institute, EPRI Report No. 1009325, Revision 2-A, Risk Impact Assessment of Extended Integrated Leak Rate Testing Interval, October 2008

21. ML011080782, Issuance Of Amendment For Nine Mile Point Nuclear Station Unit No. 1 (TAC NO. M90278) December 29, 1994

22. ML031320686, Vermont Yankee Nuclear Power Station - Issuance Of Amendment Re: One-Time Extension Of Appendix J Type A Integrated Leakage Rate Test Interval (TAC NO. MB6507) June 2, 2003

23. ML091540158, Arkansas Nuclear One, Unit No.2 -Issuance Of Amendment Re: One-Time Extension To 10-Year Frequency Of Integrated Leak Rate Test (TAC NO. MD9502) July 20, 2009

24. ML102090137, Palisades Nuclear Plant -Issuance Of Amendment Re: One-Time Extension To The Integrated Leak Rate Test Interval (TAC NO. ME2122) August 23, 2010

25. ML012050049, Issuance Of Technical Specification Amendments -Oconee Nuclear Station, Units 1, 2, And 3 (TAC NOS. M96317, M96318, M96319)

26. ML11186A906, Oconee Nuclear Station, Units 1, 2, And 3, Issuance Of Amendments Regarding A Proposed Change To The Technical Specifications To Adopt Technical Specification Task Force (TSTF) Technical Change Traveler 52, Revision 3, To Implement Option B Of Appendix J To Title 10 Of The Code Of Federal Regulations, Part 50 (TAC Nos. ME455, ME4558, And ME4559)

27. July 27, 1989 Letter to Mr. H. B. Tucker, Vice President Duke Power Company from Mr. Thomas E. Murley, Director Office of Nuclear Regulation, Determination of Backfit Appeal Regarding Containment Integrated Leakage Rate Testing at Oconee, McGuire, and Catawba Nuclear Station (TACS 68443-68449)

28. ML12097A248, Oconee Nuclear Station, Unit 1 Renewed Facility Operating License Number DPR-38 Docket Number 50-269 License Amendment Request for a One-Time, 15-Month Extension to the Integrated Leak Rate Test Interval License Amendment Request No. 2012-03

29. ML12250A339, Oconee Nuclear Station, Unit 1, Issuance of Amendment Regarding Extension of the Reactor Building Integrated Leak Rate Test (TAC NO. ME8407)

30. ML053190343, St. Lucie Plant, Unit No. 2 - Issuance Of Amendment Regarding Type A Test Interval Extension (TAC NO. MC6629)

31. ML060520032, Seabrook Station, Unit No. 1 - Issuance Of Amendment Re: Six-Month Extension For The Containment Integrated Leakage Rate Test Interval (TAC NO. MC8549)

Attachment 1

Proposed Technical Specification Changes (mark-up)

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs and Manuals

The following programs shall be established, implemented, and maintained.

5.5.1 Offsite Dose Calculation Manual (ODCM)

The ODCM shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the radiological environmental monitoring program.

Licensee initiated changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:

   1. sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s), and

   2. a determination that the change(s) do not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations;

b. Shall become effective after the approval of the Station Manager; and

c. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Radioactive Effluent Release Report for the period of the report in which any change in the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

5.5.2 Containment Leakage Rate Testing Program

A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. The next Unit 1 ILRT following the December 8, 2003 test shall be performed no later than March 8, 2015. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163,

INSERT: The next Unit 2 ILRT following the May 29, 2004 test shall be performed no later than December 29, 2015. The next Unit 3 ILRT following the December 21, 2004 test shall be performed no later than July 21, 2016.

s. ~~381~~, ~~377~~, & ~~376~~

5.5 Programs and Manuals

5.5.2 Containment Leakage Rate Testing Program (continued)

"Performance-Based Containment Leak-Test Program," dated September 1995. Containment system visual examinations required by Regulatory Guide 1.163, Regulatory Position C.3 shall be performed as follows:

1. Accessible concrete surfaces and post-tensioning system component surfaces of the concrete containment shall be visually examined prior to initiating SR 3.6.1.1 Type A test. These visual examinations, or any portion thereof, shall be performed no earlier than 90 days prior to the start of refueling outages in which Type A tests will be performed. The validity of these visual examinations will be evaluated should any event or condition capable of affecting the integrity of the containment system occur between the completion of the visual examinations and the Type A test.

2. Accessible interior and exterior surfaces of metallic pressure retaining components of the containment system shall be visually examined at least three times every ten years, including during each shutdown for SR 3.6.1.1 Type A test, prior to initiating the Type A test.

The calculated peak containment internal pressure for the design basis loss of coolant accident, P_a, is 59 psig. The containment design pressure is 59 psig.

The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.20% of the containment air weight per day.

Leakage rate acceptance criterion is:

a. Containment leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the Type B and C tests, and $\leq 0.75\ L_a$ for Type A tests;

The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

Nothing in these Technical Specifications shall be construed to modify the testing Frequencies of 10 CFR 50, Appendix J.

Attachment 2

Proposed Technical Specification Changes (retype)

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs and Manuals

The following programs shall be established, implemented, and maintained.

5.5.1 Offsite Dose Calculation Manual (ODCM)

The ODCM shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the radiological environmental monitoring program.

Licensee initiated changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:

   1. sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s), and

   2. a determination that the change(s) do not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations;

b. Shall become effective after the approval of the Station Manager; and

c. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Radioactive Effluent Release Report for the period of the report in which any change in the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

5.5.2 Containment Leakage Rate Testing Program

A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. The next Unit 1 ILRT following the December 8, 2003 test shall be performed no later than March 8, 2015. The next Unit 2 ILRT following the May 29, 2004 test shall be performed no later than December 29, 2015. The

5.5 Programs and Manuals

5.5.2 Containment Leakage Rate Testing Program (continued)

next Unit 3 ILRT following the December 21, 2004 test shall be performed no later than July 21, 2016. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995. Containment system visual examinations required by Regulatory Guide 1.163, Regulatory Position C.3 shall be performed as follows:

1. Accessible concrete surfaces and post-tensioning system component surfaces of the concrete containment shall be visually examined prior to initiating SR 3.6.1.1 Type A test. These visual examinations, or any portion thereof, shall be performed no earlier than 90 days prior to the start of refueling outages in which Type A tests will be performed. The validity of these visual examinations will be evaluated should any event or condition capable of affecting the integrity of the containment system occur between the completion of the visual examinations and the Type A test.

2. Accessible interior and exterior surfaces of metallic pressure retaining components of the containment system shall be visually examined at least three times every ten years, including during each shutdown for SR 3.6.1.1 Type A test, prior to initiating the Type A test.

The calculated peak containment internal pressure for the design basis loss of coolant accident, P_a, is 59 psig. The containment design pressure is 59 psig.

The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.20% of the containment air weight per day.

Leakage rate acceptance criterion is:

a. Containment leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the Type B and C tests, and $\leq 0.75\ L_a$ for Type A tests;

The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

Nothing in these Technical Specifications shall be construed to modify the testing Frequencies of 10 CFR 50, Appendix J.