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

December 30, 2015

Mr. Rafael Flores
Senior Vice President and
Chief Nuclear Officer
Attention: Regulatory Affairs
Luminant Generation Company LLC
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: TECHNICAL SPECIFICATION CHANGE FOR EXTENSION OF THE INTEGRATED LEAK RATE TEST FREQUENCY FROM 10 TO 15 YEARS (CAC NOS. MF5621 AND MF5622)

Dear Mr. Flores:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 165 to Facility Operating License No. NPF-87 and Amendment No. 165 to Facility Operating License No. NPF-89 for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated January 28, 2015, as supplemented by letter dated July 29, 2015.

The amendments revise TS 5.5.16, "Containment Leakage Rate Testing Program," to allow an increase in the Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," Type A Integrated Leak Rate Test (ILRT) interval from a 10-year frequency to a maximum of 15 years and the extension of the containment isolation valves leakage Type C tests from its current 60-month frequency to 75 months in accordance with Nuclear Energy Institute (NEI) 94-01, Revision 3-A, "Industry Guidance for Implementing Performance-Based Option of 10 CFR 50, Appendix J," July 2012, and conditions and limitations specified in NEI 94-01, Revision 2-A, "Industry Guidance for Implementing Performance-Based Option of 10 CFR 50, Appendix J," October 2008, in addition to limitations and conditions of NEI 94-01, Revision 3-A.

Specifically, the amendments revise TS 5.5.16.a to replace the reference to Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Rate Testing Program," with a reference to NEI 94-01, Revision 3-A, and the conditions and limitations specified in NEI 94-01, Revision 2-A and delete TS 5.5.16.1.3 listing one-time exceptions previously granted to ILRT frequencies.

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

Sincerely,

for

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures:
1. Amendment No. 165 to NPF-87
2. Amendment No. 165 to NPF-89
3. Safety Evaluation

cc w/encls: Distribution via Listserv

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

LUMINANT GENERATION COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-445

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 165
License No. NPF-87

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

   A. The application for amendment by Luminant Generation Company LLC dated January 28, 2015, as supplemented by letter dated July 29, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

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

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

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

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

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-87 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 165 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. Luminant Generation Company LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 120 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert J. Pascarelli, Chief
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility Operating
License No. NPF-87 and
Technical Specifications

Date of Issuance: December 30, 2015

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

LUMINANT GENERATION COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NO. 2

DOCKET NO. 50-446

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 165
License No. NPF-89

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

   A. The application for amendment by Luminant Generation Company LLC dated January 28, 2015, as supplemented by letter dated July 29, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

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

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

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

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

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 165 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. Luminant Generation Company LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 120 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert J. Pascarelli, Chief
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility Operating
License No. NPF-89 and
Technical Specifications

Date of Issuance: December 30, 2015

ATTACHMENT TO LICENSE AMENDMENT NO. 165

TO FACILITY OPERATING LICENSE NO. NPF-87

AND AMENDMENT NO. 165

TO FACILITY OPERATING LICENSE NO. NPF-89

DOCKET NOS. 50-445 AND 50-446

Replace the following pages of the Facility Operating License Nos. NPF-87 and NPF-89, and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Operating License No. NPF-87

REMOVE	INSERT
3	3

Facility Operating License No. NPF-89

REMOVE	INSERT
3	3

Technical Specifications

REMOVE	INSERT
5.5-14	5.5-14

(3) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, and described in the Final Safety Analysis Report, as supplemented and amended;

(4) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(6) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

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

(1) Maximum Power Level

Luminant Generation Company LLC is authorized to operate the facility at reactor core power levels not in excess of 3458 megawatts thermal through Cycle 13 and 3612 megawatts thermal starting with Cycle 14 in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 165 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. Luminant Generation Company LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, and described in the Final Safety Analysis Report, as supplemented and amended;

(4) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(6) Luminant Generation Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

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

(1) Maximum Power Level

Luminant Generation Company LLC is authorized to operate the facility at reactor core power levels not in excess of 3458 megawatts thermal through Cycle 11 and 3612 megawatts thermal starting with Cycle 12 in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 165 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. Luminant Generation Company LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

DELETED

5.5 Programs and Manuals

5.5.15 Safety Function Determination Program (SFDP) (continued)

b. A loss of safety function exists when, assuming no concurrent single failure, a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

1. A required system redundant to the system(s) supported by the inoperable support system is also inoperable; or

2. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable; or

3. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

c. The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

5.5.16 Containment Leakage Rate Testing Program

a. A program shall be established to implement 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. This program shall be in accordance with the guidelines contained in NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," Revision 3-A, dated July 2012, and the conditions and limitations specified in NEI 94-01, Revision 2-A, dated October 2008, as modified by the following exceptions:

1. The visual examination of containment concrete surfaces intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, will be performed in accordance with the requirements of and frequency specified by the ASME Section XI Code, Subsection IWL, except where relief has been authorized by the NRC.

2. The visual examination of the steel liner plate inside containment intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B, will be performed in accordance with the requirements of and frequency specified by the ASME Section XI Code, Subsection IWE, except where relief has been authorized by the NRC.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 165 TO

FACILITY OPERATING LICENSE NO. NPF-87

AND AMENDMENT NO. 165 TO

FACILITY OPERATING LICENSE NO. NPF-89

LUMINANT GENERATION COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

By application dated January 28, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15036A032), as supplemented by letter dated July 29, 2015 (ADAMS Accession No. ML15224B477), Luminant Generation Company LLC (Luminant, the licensee) requested changes to the Technical Specifications (TSs) for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2. The supplemental letter dated July 29, 2015, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on March 31, 2015 (80 FR 17092).

The proposed change would allow an increase in Integrated Leak Rate Test (ILRT) (Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix J, Type A Test) from its current 10-year frequency to a maximum of 15 years and the extension of the containment isolation valve (CIV) leakage test (10 CFR 50, Appendix J, Type C Tests) from its current 60-month frequency to 75 months for CPNPP, Units 1 and 2. The amendments also revise TS 5.5.16, "Containment Leakage Rate Testing Program," to replace the reference to Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Rate Testing Program," dated September 1995 (ADAMS Accession No. ML003740058), with a reference to Nuclear Energy Institute (NEI) topical report (TR) NEI 94-01, Revision 3-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," July 2012 (ADAMS Accession No. ML12221A202), and limitations and conditions specified in NEI 94-01, Revision 2-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," October 2008 (ADAMS Accession No. ML100620847), as the implementation documents for CPNPP, Units 1 and 2, to implement the performance-based leakage testing

program in accordance with Option B, "Performance-Based Requirements," of 10 CFR 50, Appendix J. By letter dated June 13, 1996, the NRC approved License Amendment No. 51 for CPNPP, Unit 1, and Amendment No. 37 for CPNPP, Unit 2, authorizing the implementation of 10 CFR Part 50, Appendix J, Option B for Type A, B, and C tests (ADAMS Accession No. ML021820234).

A one-time extension to extend the ILRT interval from 10 to 15 years for CPNPP, Units 1 and 2, was previously approved in License Amendment Nos. 98 and 98, respectively, by the NRC on August 15, 2002 (ADAMS Accession No. ML021970215). The proposed change deletes this one-time exception in TS 5.5.16.a.3.

2.0 REGULATORY EVALUATION

The regulations in 10 CFR 50.54(o) require that the primary reactor containments for water cooled power reactors shall be subject to the requirements set forth in Appendix J to 10 CFR Part 50, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." Appendix J to 10 CFR Part 50 includes two options: "Option A – Prescriptive Requirements," and "Option B – Performance-Based Requirements," either of which can be chosen for meeting the requirements of the Appendix. The testing requirements in 10 CFR Part 50, Appendix J ensure that (a) leakage through containments and systems and components penetrating containments does not exceed allowable leakage rates specified in the TS; and (b) integrity of the containment structure is maintained during the service life of the containment. The licensee has voluntarily adopted and has been implementing Option B for meeting the requirements of 10 CFR Part 50, Appendix J for both CPNPP, Units 1 and 2.

Option B of 10 CFR Part 50, Appendix J specifies performance-based requirements and criteria for preoperational and subsequent leakage-rate testing. These requirements are met by performance of: Type A tests to measure the containment system overall integrated leakage rate; Type B pneumatic tests to detect and measure local leakage rates across pressure-retaining leakage-limiting boundaries such as penetrations; and Type C pneumatic tests to measure CIV leakage rates. After the preoperational tests, these tests are required to be conducted at periodic intervals based on the historical performance of the overall containment system (for Type A tests), and based on the safety significance and historical performance of each boundary and isolation valve (for Type B and C tests) to ensure integrity of the overall containment system as a barrier to fission product release.

Currently, CPNPP, Units 1 and 2, TS 5.5.16 requires that leakage rate testing be performed as required by 10 CFR Part 50, Appendix J, Option B, as modified by approved exemptions, and in accordance with the guidelines contained in RG 1.163. This RG endorses, with certain exemptions, NEI 94-01, Revision 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," dated July 21, 1995 (ADAMS Accession No. ML11327A025).

Section 50.55a, "Codes and standards," of 10 CFR contains the containment inservice inspection (CISI) requirements that, in conjunction with the requirements of Appendix J, ensure the continued leak-tight and structural integrity of the containment during its service life.

10 CFR 50.65(a)(1) states, in part, that licensees "shall monitor the performance or condition of structures, systems, or components, against licensee-established goals, in a manner sufficient to provide reasonable assurance that these structures, systems, and components, as defined in paragraph (b) of this section, are capable of fulfilling their intended functions. These goals shall be established commensurate with safety and, where practical, take into account industrywide operating experience."

A Type A test is an overall ILRT of the containment structure. NEI 94-01, Revision 0, specifies an initial test interval of 48 months, but allows an extended interval of 10 years, based upon two consecutive successful tests. There is also a provision for extending the test interval an additional 15 months, but this "should be used only in cases where refueling schedules have been changed to accommodate other factors." By letter dated August 15, 2002 (Amendment Nos. 98 and 98, for CPNPP, Units 1 and 2, respectively), the NRC allowed a one-time extension of the ILRT interval to 15 years. However, the long-term ILRT test interval requirement in TS 5.5.16 for both units remained at 10 years.

Guidance for extending Type A ILRT surveillance intervals beyond 10 years is provided in NEI 94-01, Revision 2-A. Guidance for extending Type C test local leak rate test (LLRT) surveillance intervals beyond 60 months is provided in NEI 94-01, Revision 3-A.

The Type A, Type B, and Type C test results must not exceed the L_a (the maximum allowable leakage rate at the calculated peak containment pressure related to the design basis accident (P_a)) with margin, as specified in TS 5.5.16.d.1 for CPNPP, Units 1 and 2. Option B also requires that a general visual inspection of the accessible interior and exterior surfaces of the containment system for structural deterioration, which may affect the containment leak-tight integrity, must be conducted prior to each Type A test and at a periodic interval between tests based on the performance of the containment system.

The licensee proposes to extend the CPNPP, Units 1 and 2, intervals for the primary containment ILRT to a maximum of 15 years from the last ILRT. The last CPNPP, Unit 1, ILRT was completed on April 14, 2007. The last CPNPP, Unit 2, ILRT was completed on October 9, 2012. The ILRTs for each unit are currently required to be performed at a frequency of once every 10 years. Therefore, the next CPNPP, Unit 1, ILRT is due by April 2017 and the next CPNPP, Unit 2, ILRT is due by October 2022. Using the proposed interval of 15 years, the next CPNPP, Unit 1, ILRT will be due by April 2022 and the next CPNPP, Unit 2, ILRT will be due by October 2027.

The regulations in 10 CFR 50, Appendix J, Option B, Section V.B.3, requires that the regulatory guide or other implementation document used by a licensee to develop a performance-based leakage testing program must be included, by general reference, in the plant TSs. Furthermore, the submittal for TS revisions must contain justification, including supporting analyses, if the licensee chooses to deviate from methods approved by the Commission and endorsed in a regulatory guide.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes

Current TS 5.5.16.a states, in part, that:

> A program shall be established to implement 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. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program, dated September, 1995" as modified by the following exceptions:

Revised TS 5.5.16.a would state, in part, that:

> A program shall be established to implement 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. This program shall be in accordance with the guidelines contained in NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," Revision 3-A, dated July 2012, and the conditions and limitations specified in NEI 94-01, Revision 2-A, dated October 2008, as modified by the following exceptions:

Current TS 5.5.16.a.3 states:

> NEI 94-01 – 1995, Section 9.2.3: The first Type A Test performed after the December 7, 1993 Type A Test (Unit 1) and the December 1, 1997 Type A Test (Unit 2) shall be performed no later than December 15, 2008 (Unit 1) and December 9, 2012 (Unit 2).

The licensee proposed to delete TS 5.5.16.a.3.

3.2 Deterministic Considerations: Structural and Leak-Tight Integrity of the Containment

3.2.1 NRC Staff's Evaluation

The proposed changes in the license amendment request (LAR) would revise the aforementioned portion of CPNPP, Units 1 and 2, TS 5.5.16 by replacing the reference to RG 1.163 with a reference to NEI 94-01, Revision 3-A, and the conditions and limitations specified in NEI 94-01, Revision 2-A, as the implementation documents used by CPNPP to implement the Unit 1 and Unit 2 performance-based leakage testing program in accordance with Option B of 10 CFR 50, Appendix J. Consistent with the guidance contained in both NEI 94-01, Revision 2-A, and NEI 94-01, Revision 3-A, the licensee justified the proposed changes by demonstrating adequate performance of the CPNPP, Units 1 and 2, containments based on (a) the historical plant-specific containment leakage testing program results; (b) the CISI program results: and (c) a CPNPP plant-specific risk assessment. The NRC staff reviewed the

information provided by letters dated January 28 and July 29, 2015, from the point of deterministic considerations with regard to containment leak-tight integrity.

The results of the two most recent Type A test results for CPNPP, Unit 1, of December 1993 and April 2007 were reflected in Section 3.3 of Attachment 1 of the licensee's letter dated January 28, 2015. By letter dated July 29, 2015, in response to SCVB RAI-1 provided in the NRC staff's request for additional information (RAI) dated July 2, 2015 (ADAMS Accession No. ML15189A237), the licensee confirmed that both Type A tests were performed consistent with the definition of P_a.

The results of the two most recent Type A test results for CPNPP, Unit 2, of December 1997 and October 2012 were reflected in Section 3.3 of Attachment 1 of the licensee's letter dated January 28, 2015. In its July 29, 2015, response to SCVB RAI-1, the licensee confirmed that both Type A tests were performed consistent with the definition of P_a.

Both Type A tests were successful in that the test results were less than 1.0 L_a and less than the CPNPP, Units 1 and 2, TS 5.5.16.d limiting values. Both P_a and L_a are defined in CPNPP, Units 1 and 2, "Containment Leakage Rate Testing Program," TSs 5.5.16.b and 5.5.16.c, respectively.

3.2.1.1 Description of the CPNPP Primary Containments

In Section 3.2 of Attachment 1 of the letter dated January 28, 2015, the licensee stated, in part, that:

> Reactor Containment structure is a fully continuous, steel-lined, reinforced concrete structure. It consists of a vertical cylinder and a hemispherical dome and is supported on an essentially flat foundation mat with a reactor cavity pit projection. The Containment superstructure is independent of the adjacent interior and exterior structures. Sufficient space is provided between the Containment and the adjacent structures to prevent contact under all combinations of loadings.
>
> The entire inside face of the Containment (mat, walls, and dome) is lined with a continuous welded steel liner plate, attached with anchors to the reinforced concrete, to ensure a high degree of leaktightness. The thickness of the liner in the wall is 3/8 in. [inch] and in the dome is 1/2 in. A 1/4 in. thick plate is used on top of the foundation mat and is covered with a layer of concrete. Local thickened liner plate sections are provided at penetrations, major pipe and duct support attachments and at crane and rotating platform girder brackets, and at the bottom of the cylindrical wall's steel liner. Overlay plates and/or structural shapes may be used on the interior side of the liner for support of minor pipes and ducts, conduits, cable trays, and equipment.
>
> Leak-chase channels are provided at liner seams, which, after construction, are inaccessible for other means of leaktightness examination.

CPNPP, Units 1 and 2, TS 5.5.16.c indicates that the containments were designed for a leakage rate L_a not to exceed 0.10 percent of containment air weight per day at the calculated peak pressure, P_a. TS 5.5.16.b states:

> The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a, is 48.3 psig [pounds per square inch].

3.2.1.2 Integrated Leakage Rate Test, Type A Test Frequencies

As required by 10 CFR 50.54(o), the CPNPP, Units 1 and 2, containments are subject to the requirements set forth in 10 CFR 50, Appendix J. Option B of Appendix J requires that test intervals for Type A, Type B, and Type C testing be determined by using a performance-based approach. As explained above, the leakage rate testing requirements of 10 CFR 50, Appendix J, Option B (Type A, Type B, and Type C Tests) and the CISI requirements mandated by 10 CFR 50.55a, together ensure the continued leak-tightness and structural integrity of the containment during its service life.

Currently, the CPNPP, Units 1 and 2, 10 CFR 50 Appendix J Testing Program Plans are based on RG 1.163, which endorses NEI 94-01, Revision 0. The licensee proposes to revise the CPNPP, Units 1 and 2, 10 CFR 50, Appendix J Testing Program Plan by implementing the guidance contained in NEI 94-01, Revision 3-A, and the conditions and limitations of NEI 94-01, Revision 2-A.

By letter dated June 25, 2008 (ADAMS Accession No. ML081140105), the NRC published a safety evaluation (SE), with limitations and conditions, for NEI 94-01, Revision 2. In the SE, the NRC concluded that NEI 94-01, Revision 2, describes an acceptable approach for implementing the optional performance-based requirements of 10 CFR 50, Appendix J, and is acceptable for referencing by licensees proposing to amend their TSs in regard to containment leakage rate testing, subject to the limitations and conditions, noted in Section 4.0 of the SE. Section 4.1 of the SE establishes limitations and conditions pertaining to deterministic requirements; while Section 4.2 establishes limitations and conditions pertaining to the plant's probabilistic risk assessment (PRA) analysis. More explicitly, the SE includes provisions for extending the ILRT Type A test interval to a maximum of 15 years subject to the limitations and conditions provided in the SE for NEI 94-01, Revision 2. The NRC noted in the SE that NEI 94-01, Revision 2, incorporates the regulatory positions stated in RG 1.163. The accepted version of NEI 94-01, Revision 2, after inclusion of the SE and limitations and conditions, was subsequently issued as Revision 2-A. The NEI issued Revision 2-A to NEI TR 94-01 by letter dated November 19, 2008 (ADAMS Accession No. ML100620847).

Table 4.1.6-1, "NEI 94-01 Revision 2-A Limitations and Conditions," of Attachment 1 of the licensee's letter dated January 28, 2015, indicates that CPNPP, Units 1 and 2, will meet the limitations and conditions of NEI 94-01, Revision 2, Section 4.1. Accordingly, the licensee intends to adopt the testing technical methods and techniques of American National Standards Institute/American Nuclear Society (ANSI/ANS) 56.8–2002, "Containment System Leakage Testing Requirements" (reaffirmed August 9, 2011), rather than ANSI/ANS 56.8–1994.

NRC Staff Evaluation of Conditions and Limitations in NEI 94-01, Revision 2-A

The NRC staff has determined that the use of NEI 94-01, Revision 2-A, is acceptable for referencing by licensees proposing to amend their TSs to permanently extend the ILRT surveillance interval to a maximum of 15 years, provided the following applicable six conditions are satisfied (see Section 4.0 of the NRC staff's SE dated June 25, 2008, for NEI 94-01, Revision 2). Luminant's response to compliance with limitations/conditions of the NRC staff's SE is documented in Table 4.1.6-1, of Attachment 1 of the licensee's letter dated January 28, 2015.

Condition 1

> For calculating the Type A leakage rate, the licensee should use the definition in the NEI TR 94-01, Revision 2, in lieu of that in ANSI/ANS-56.8-2002.

Luminant's Compliance Statement (as stated)

> CPNPP will utilize the definition in NEI 94-01 Revision 3-A, Section 5.0. This definition has remained unchanged from Revision 2-A to Revision 3-A of NEI 94-01.

NRC Staff Assessment

Section 3.2.9, "Type A test performance criterion," of ANSI/ANS-56.8-2002 defines the "performance leakage rate" and states, in part, that:

> The performance criterion for a Type A test is met if the performance leakage rate is less than L_a. The performance leakage rate is equal to the sum of the measured Type A test UCL [upper confidence limit] and the total as-left MNPLR [minimum pathway leakage rate] of all Type B or Type C pathways isolated during performance of the Type A test.

The NRC staff's June 25, 2008, SE Section 3.1.1.1, for NEI 94-01, Revision 2, states, in part, that:

> Section 5.0 of NEI TR 94-01, Revision 2, uses a definition of "performance leakage rate" for Type A tests that is different from that of ANSI/ANS-56.8-2002. The definition contained in NEI TR 94-01, Revision 2, is more inclusive because it considers excessive leakage in the performance determination. In defining the minimum pathway leakage rate, NEI TR 94-01, Revision 2, includes the leakage rate for all Type B and Type C pathways that were in service, isolated, or not lined up in their test position prior to the performance of the Type A test. Additionally, the NEI TR 94-01, Revision 2, definition of performance leakage rate requires consideration of the leakage pathways that were isolated during performance of the test because of excessive leakage in the performance determination. The NRC staff finds this modification of the definition of "performance leakage rate" used for Type A tests to be acceptable.

Section 5.0 of NEI 94-01, Revision 2-A states, in part, that:

> The *performance leakage rate* is calculated as the sum of the Type A upper confidence limit (UCL) and as-left minimum pathway leakage rate (MNPLR) leakage rate for all Type B and Type C pathways that were in service, isolated, or not lined up in their test position (i.e., drained and vented to containment atmosphere) prior to performing the Type A test. In addition, leakage pathways that were isolated during performance of the test because of excessive leakage must be factored into the performance determination. The performance criterion for Type A tests is a performance leak rate of less than $1.0L_a$.

The NRC staff reviewed the definitions of "performance leakage rate" contained NEI 94-01, Revision 2, Revision 2-A, and Revision 3-A. The staff concluded that the definitions contained in all three revisions are identical. Based on this, the staff agrees with the licensee that this definition has remained unchanged from Revision 2-A to Revision 3-A of NEI 94-01.

In SCVB RAI-2 dated July 2, 2015, the NRC staff inquired as to whether the current CPNPP, Units 1 and 2, containment leakage rate testing programs employed the definition of "performance leakage rate" contained in NEI 94-01, Revision 2. In its response dated July 29, 2015, the licensee clarified that the plant test procedures used to perform the CPNPP, Unit 1 ILRT of April 14, 2007, and the CPNPP, Unit 2 ILRT of October 9, 2012, used the subject definition. In particular, the most recent containment ILRTs used Unit 1 Procedure No. PPT-SI-7014 Revision No. 1 (dated March 23, 2007) and Unit 2 Procedure No. PPT-52-7014 Revision No. 1 (dated October 4, 2012).

Therefore, the NRC staff concludes that both CPNPP, Units 1 and 2, will use the definitions found in Section 5.0 of NEI 94-01, Revision 2, for calculating the Type A leakage rate in the CPNPP, Units 1 and 2, containment leakage rate testing program.

Based on the above review, the NRC staff concludes that the licensee has adequately addressed "Condition 1."

Condition 2

> The licensee submits a schedule of containment inspections to be performed prior to and between Type A tests.

Luminant's Compliance Statement

The licensee provided the details of future American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, Subsections IWE and IWL examination schedules in Tables 4.1.2-1, 4.1.2-2, and 4.1.2-3 of Attachment 1 of its letter dated January 28, 2015.

NRC Staff Assessment

Section 9.2.3.2, "Supplemental Inspection Requirements," of NEI 94-01, Revision 2-A, and Revision 3-A, states that in order to provide continuing supplemental means of identifying

potential containment degradation, a general visual examination of accessible interior and exterior surfaces of the containment for structural deterioration that may affect the containment leak-tight integrity must be conducted prior to each Type A test and during at least three other outages before the next Type A test if the interval of the Type A test is extended to 15 years. However, by letter dated December 13, 2007, the NRC approved License Amendment No. 141 for CPNPP, Units 1 and 2 (ADAMS Accession No. ML073120252), to revise TS 5.5.16 to allow the visual examination of the containment to be performed in accordance with the requirements of and frequency specified by the ASME Code, Section XI, Subsections IWE and IWL. As stated in subparagraphs a.1 and a.2 of the CPNPP TS 5.5.16, the visual examination of the containment steel liner plate and the containment concrete surfaces, intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, is performed in accordance with the requirements of and frequency specified by the ASME Code, Section XI, Subsections IWE and IWL.

Subsection IWE of ASME Code, Section XI, requires the performance of a complete visual examination of the containment liner once each inspection period. If the interval for the Type A test is extended to 15 years, a minimum of four complete inspections of the containment liner will be performed. Subsection IWL of ASME Code, Section XI, requires the performance of a complete visual examination of the containment exterior concrete once every 5 years, as CPNPP, Units 1 and 2, are beyond 10 years of commercial operation. If the interval for the Type A test is extended to 15 years, a minimum of two complete inspections of the containment concrete surfaces will be performed during the interval between Type A tests. The licensee also stated that the CPNPP IWE and IWL examinations are scheduled in a way that is counted as a pre-ILRT examination. This is stated in the NRC's December 13, 2007, SE associated with the approval of the License Amendment No. 141. This letter also indicated that the intent of early uncovering of evidence of structural deterioration will continue to be met by the more rigorous requirements of the Subsection IWE and IWL visual examinations.

The last CPNPP, Units 1 and 2, Type A test was performed on April 14, 2007, and October 9, 2012, respectively. In its July 29, 2015, response to EMCB RAI-1, the licensee provided the dates of completed and scheduled IWE and IWL general visual examinations of the CPNPP, Units 1 and 2, containments, representative of a typical 15-year period between Type A tests for the first extended interval for Unit 1 (between April 14, 2007, and April 14, 2022) and Unit 2 (between October 9, 2012, and October 9, 2027). As indicated in the information provided, there will be four IWL examinations performed during the first extended ILRT interval for each unit. The licensee stated that this is due to the shift forward of the third fifth year IWL examination for both Units 1 and 2 from a scheduled date of March 2024 to March 2022 to coincide with the performance of the Unit 1 Type A test, if the current ILRT interval at CPNPP is extended to 15 years. Following this shift, there will only be three IWL examinations performed during each extended ILRT interval with the third inspection occurring prior to the next scheduled ILRT. The response to RAI-1 also indicated that there will be at least four IWE examinations of the CPNPP, Units 1 and 2, containments, with one IWE examination occurring prior to the next scheduled Type A test.

The NRC staff concludes that the schedule submitted by the licensee for containment inspections satisfies the intent of Condition 2 in the NRC's SE for NEI 94-01, Revision 2, based on the following:

(1) The CPNPP TS 5.5.16 states that the visual examination of the containment steel liner plate and the containment concrete surfaces intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, be performed in accordance with the requirements of and frequency specified by the ASME Code, Section XI, Subsections IWE and IWL;

(2) The licensee's schedule of general visual examinations of CPNPP, Units 1 and 2, containments, described above, results in at least four IWE and four IWL examinations, between Type A tests for the first extended interval;

(3) Following the first extended interval, there will be four IWE and three IWL examinations, between Type A tests in accordance with the established frequency specified by the ASME Code, Section XI, Subsections IWE and IWL, as indicated in CPNPP TS 5.5.16;

(4) The intent of early uncovering of evidence of structural deterioration will continue to be met by the more rigorous requirements of the Subsections IWE and IWL visual examinations; and

(5) The CPNPP IWE and IWL examinations are scheduled in a way that one examination is performed prior to a Type A test.

Condition 3

The licensee addresses the areas of the containment structure potentially subjected to degradation.

Luminant's Compliance Statement

The licensee provided the details of the areas of the containment structure potentially subjected to degradation in Tables 4.1.2.1, 4.1.2.2, and 4.1.2.3 of Attachment 1 of its letter dated January 28, 2015.

NRC Staff Assessment

In Section 4.1.2 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that general visual examination of accessible areas of the containment system for structural problems are conducted in accordance with the CPNPP, Units 1 and 2, CISI program, which implements the requirements of the 2007 Edition with the 2008 Addenda of the ASME Code, Section XI, Subsections IWE and IWL, as modified by 10 CFR 50.55a. The licensee further stated that the third interval CISI program is currently in effect and covers the interval from September 10, 2012, to September 9, 2021. This interval was reduced to 9 years to compensate for the previous interval being extended to 11 years.

In Sections 4.1.2.1 and 4.1.2.5 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that an evaluation of the acceptability of inaccessible areas of the containment is required when conditions exist in accessible areas that could indicate degradation could also exist or could have extended into the inaccessible areas. By letter dated July 29, 2015, in response to the EMCB RAI-3 requesting additional discussion on examination of inaccessible areas of the CPNPP, Units 1 and 2, containment structures and evaluation of the acceptability of inaccessible areas, as required by 10 CFR 50.55a(b)(2)(viii)(E) or 10 CFR 50.55a(b)(2)(ix)(A), the licensee stated that there have been no instances requiring the evaluation of the acceptability of inaccessible areas at CPNPP. In Section 4.1.2.1 of Attachment 1 to its letter dated January 28, 2015, the licensee further stated that (1) CPNPP has not needed to implement any new technologies to perform inspections of any inaccessible areas at this time; (2) Luminant actively participates in various nuclear utility owners groups and ASME Code committees to maintain cognizance of ongoing developments within the nuclear industry; (3) industry operating experience is also continuously reviewed to determine its applicability to CPNPP; and (4) 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.

In Section 4.1.2.2 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that moisture barriers including seismic barrier material attached to the containment liner and the plug-to-coupling pipe surface of the liner leak chase channel test piping is subject to a general visual inspection of 100 percent of the surfaces, each CISI inspection period. In its letter dated July 29, 2015, in response to EMCB RAI-2, the licensee provided the following information:

a) There is no history of unacceptable inspections of the plug-to-coupling pipe surface of the liner leak chase channel test piping. The last inspection of plug-to-coupling pipe surface was performed during Unit 1 1RF16 (spring 2013) and 1RF17 (fall 2014), and Unit 2 2RF14 (spring 2014) refueling outages.

b) During the Unit 1 1RF16 refueling outage inspection, an approximately 1-inch liner indication was noted at the moisture barrier surface (Area 16 approximately 203-degree azimuth). The indication was inspected and determined to be acceptable. The indication was photographed for documentation purposes.

c) During the Unit 2 2RF14 refueling outage inspection, an area of intermittent local surface damage of the moisture barrier seal was noted. The indication was inspected and determined to be acceptable. The indication was photographed for documentation purposes.

The licensee stated, in Section 4.1.2.3 of Attachment 1 to its letter dated January 28, 2015, that there are currently no identified areas requiring an augmented inspection per IWE-1240 at CPNPP, Units 1 and 2.

Based on the above information provided by the licensee regarding the implementation of the CISI program and operating experience at CPNPP, Units 1 and 2, to date, identifying no conditions that exhibit or would indicate the presence of potential degraded conditions in the accessible and inaccessible areas of the containment concrete and steel liner, the NRC staff

concludes that the licensee has adequately addressed the intent of Condition 3 of the NRC's SE for NEI 94-01, Revision 2.

Condition 4

> The licensee addresses any tests and inspections performed following major modifications to the containment structure, as applicable.

Luminant's Compliance Statement (as stated)

> CPNPP Unit 1 steam generator replacements have been completed. Unit 2, replacements are not anticipated.
>
> There are no planned modifications for CPNPP Units 1 and 2 that will require a Type A test prior to the next Units 1 and 2 Type A test proposed under this LAR.
>
> There is no anticipated addition or removal of plant hardware within the containment building which could affect its leak-tightness.

NRC Staff Assessment

The NRC staff's June 25, 2008, SE Section 3.1.4, for NEI 94-01, Revision 2, states, in part, that:

> Section 9.2.4 of NEI TR 94-01, Revision 2, states that: "Repairs and modifications that affect the containment leakage integrity require LLRT [local leak rate test] or short duration structural tests as appropriate to provide assurance of containment integrity following the modification or repair. This testing shall be performed prior to returning the containment to operation." Article IWE-5000 of the ASME Code, Section XI, Subsection IWE (up to the 2001 Edition and the 2003 Addenda), would require a Type A test after major repair or modifications to the containment. In general, the NRC staff considers the cutting of a large hole in the containment for replacement of steam generators or reactor vessel heads, replacement of large penetrations, as major repair or modifications to the containment structure.

In its letter dated July 29, 2015, in response to the NRC staff SCVB RAI-3 dated July 2, 2015, the licensee provided a discussion demonstrating its compliance with the guidance of the NRC staff's June 25, 2008, SE for NEI 94-01, Revision 2, Section 3.1.4, for any CPNPP, Units 1 and 2, containment modifications (major or minor) that may have affected containment integrity since the pre-operational phases of both units. The licensee stated, in part, that:

> There has been a single historical event associated with the containment structures at CPNPP. That being the Steam Generator and Reactor Vessel Head Replacement Project [(SGRP)] in Unit 1 during the 2007 1RF12 refueling outage. The equipment hatch was not of sufficient size to permit the removal and replacement of the Steam Generators (SGs) or the Reactor Vessel Head (RVH). To accomplish the removal and replacement of the SGs and the RVH, a Containment Alternate Access (CAA) was created in the Containment Building.

In its letter dated July 29, 2015, the licensee further stated, in part, that

> Post Modification Testing
>
> After the replacement concrete had attained design strength and prior to ascending to Plant Mode 4 the restored SGRP CAA was qualified by pressure testing.
>
> The scheduled required periodic Type A ILRT was performed on 4/14/2007 in accordance with 10 CFR 50, Appendix J on the Unit 1 containment structure. The scheduled Type A pressure test was performed at a test pressure of 48.862 psig in accordance with applicable TXU procedures. A new baseline inspection of the exterior surfaces of the affected concrete containment areas was performed prior to the Type A. Another visual inspection of the affected concrete areas was performed after the Type A test.

Based on the information provided by the licensee as described above, the NRC staff concludes that the licensee has sufficiently addressed the tests and inspections performed following the removal and replacement of the SGs and the RVH for CPNPP, Unit 1. The NRC staff notes that the licensee's compliance statement with "Condition 4" is based on the future projection that there are no planned modifications of the CPNPP, Units 1 and 2, containment buildings, which could affect the containment's leak tightness and any unplanned modifications to the containment structure in the future would be subject to the testing and inspection requirements specified in Section 9.2.4 of NEI TR 94-01, Revision 2. Therefore, the NRC staff concludes that the licensee has adequately addressed the intent of Condition 4 of the NRC staff SE for NEI 94-01, Revision 2.

Condition 5

> The normal Type A test interval should be less than 15 years. If a licensee has to utilize the provision of Section 9.1 of NEI TR 94-01, Revision 2, related to extending the ILRT interval beyond 15 years, the licensee must demonstrate to the NRC staff that it is an unforeseen emergent condition.

Luminant's Compliance Statement (as stated)

> CPNPP will follow the requirements of NEI 94-01 Revision 3-A, Section 9.1. This requirement has remained unchanged from Revision 2-A to Revision 3-A of NEI 94-01.
>
> In accordance with the requirements of 94-01 Revision 2-A, SER [Safety Evaluation Report] Section 3.1.1.2, CPNPP will also demonstrate to the NRC staff that an unforeseen emergent condition exists in the event an extension beyond the 15-year interval is required.

NRC Staff Assessment

The NRC staff's June 25, 2008, SE Section 3.1.1.2, for NEI 94-01, Revision 2, states:

> Deferral of Tests Beyond The 15-Year Interval
>
> As noted above, Section 9.2.3, NEI TR 94-01, Revision 2, states, "Type A testing shall be performed during a period of reactor shutdown at a frequency of at least once per 15 years based on acceptable performance history." However, Section 9.1 states that the "required surveillance intervals for recommended Type A testing given in this section may be extended by up to 9 months to accommodate unforeseen emergent conditions but should not be used for routine scheduling and planning purposes." The NRC staff believes that extensions of the performance-based Type A test interval beyond the required 15 years should be infrequent and used only for compelling reasons. Therefore, if a licensee wants to use the provisions of Section 9.1 in TR NEI 94-01, Revision 2, the licensee will have to demonstrate to the NRC staff that an unforeseen emergent condition exists.

The NRC staff notes that the licensee has acknowledged the requirements of NEI 94-01, Revision 2-A, SE Section 3.1.1.2 and accepted the NRC staff position discussed in Condition 5. The licensee has confirmed its understanding that any extension of the Type A test interval beyond the upper-bound performance-based limit of 15 years should be infrequent and that any requested permission (i.e., for such an extension) will demonstrate to the NRC staff that an unforeseen emergent condition exists.

Based on the above review, the NRC staff concludes that the licensee has adequately addressed "Condition 5."

Condition 6

> For plants licensed under 10 CFR Part 52, applications requesting a permanent extension of the ILRT surveillance interval to 15 years should be deferred until after the construction and testing of containments for that design have been completed and applicants have confirmed the applicability of NEI TR 94-01, Revision 2, and EPRI Report No. 1009325, Revision 2,[1] including the use of past containment ILRT data.

Luminant's Compliance Statement

The licensee indicated this condition is not applicable to CPNPP. CPNPP was not licensed under 10 CFR Part 52.

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[1] Electric Power Research Institute, EPRI 1009325, Revision 2, "Risk Impact Assessment of Extended Integrated Leak Rate Testing Intervals," August 2007 (ADAMS Accession No. ML072970208).

NRC Staff Assessment

The NRC staff concludes that CPNPP, Units 1 and 2, are operating reactors currently licensed per the requirements of 10 CFR Part 50.

Therefore, "Condition 6" does not apply.

Summation

Based on the above evaluation of each condition, the NRC staff determined that the licensee has adequately addressed the six conditions identified in Section 4.1 of the NRC's SE for TR NEI 94-01, Revision 2-A. Therefore, the NRC staff concludes that it is acceptable for CPNPP, Units 1 and 2, to adopt the "*conditions and limitations*" of TR NEI 94-01, Revision 2-A, as part of the implementation documents in TS 5.5.16, "Containment Leakage Rate Testing Program."

3.2.1.3 Licensee's Proposal for Extension of Type A Test Interval up to 15 Years

By letters dated January 28 and July 29, 2015, the licensee proposed to extend for both CPNPP, Units 1 and 2, the current performance-based Type A test intervals to no longer than 15 years by adopting NEI 94-01, Revision 3-A, and the conditions and limitations of NEI 94-01, Revision 2-A, as the implementation documents in TS 5.5.16. This change would allow CPNPP, Unit 1, to conduct the next Type A test by April 14, 2022, in lieu of the current due date of April 14, 2017, and would allow CPNPP, Unit 2, to conduct the next Type A test by October 9, 2027, in lieu of the current due date of October 9, 2022. The licensee justified these proposed changes by demonstrating adequate performance of the CPNPP, Units 1 and 2, containments based on plant-specific containment leakage testing program results and CISI (IWE/IWL) results and supported by a plant-specific risk assessment, consistent with the guidance in NEI 94-01, Revision 3-A, and the conditions and limitations of NEI 94-01, Revision 2-A. The NRC staff reviewed the information provided in the licensee's letters dated January 28 and July 29, 2015, as discussed in this section, from the point of deterministic considerations, with regard to containment structural and leak-tight integrity, if the current ILRT interval is extended to 15 years.

3.2.1.4 CPNPP Type A Test Performance History

Per TS 5.5.16, CPNPP, Units 1 and 2, were designed for a maximum allowable containment leakage rate L_a of 0.1 percent by weight of containment air weight per day at the calculated peak pressure, P_a. Per TS 5.5.16.b, the calculated peak containment internal pressure for the design basis loss-of-coolant accident, P_a, is 48.3 psig.

Since the summer of 1989, a total of three ILRTs have been performed on CPNPP, Unit 1, all with satisfactory results. All three ILRT test results were documented in Section 3.3 of Attachment 1 to the licensee's letter dated January 28, 2015, and in the licensee's response to SCVB RAI-1 in its letter dated July 29, 2015. These test results are summarized in Table 1 below:

TABLE 1

Historical CPNPP, Unit 1, Type A Tests

Test Date	As found Leakage (% Containment air weight per day)	Test Pressure (psig) (Note 2)
07/04/1989 (Pre-Operation) (Note 1)	0.023	49.0
12/07/1993	0.05638	48.66
04/14/2007	0.063019	48.862

Notes:

1. The commercial operation date for Unit 1 is August 13, 1990.
2. Data source: Tables 3.3-1 and 3.3-2 of letter dated July 29, 2015 (SCVB RAI-1 response).

Since the summer of 1992, a total of three ILRTs have been performed on CPNPP, Unit 2, all with satisfactory results. All three ILRT test results were documented in Section 3.3 of Attachment 1 to the licensee's letter dated January 28, 2015, and in the licensee's response to SCVB RAI-1 in its letter dated July 29, 2015. These test results are summarized in Table 2 below:

TABLE 2

Historical CPNPP, Unit 2, Type A Tests

Date	As found Leakage (% Containment air weight per day)	Test Pressure (psig) (Note 2)
09/10/1992 (Pre-Operation) (Note 1)	0.052	48.8256
12/01/1997	0.0317	49.203
10/09/2012	0.0595	48.49

Notes:

1. The commercial operation date for Unit 2 is August 3, 1993.
2. Data source: Tables 3.3-1 and 3.3-2 of letter dated July 29, 2015 (SCVB RAI-1 response).

The NRC staff notes that the last sentence of Section 9.2.3, "Extended Test Intervals," of NEI 94-01, Revision 3-A, states:

> In the event where previous Type A tests were performed at reduced pressure (as described in 10 CFR 50, Appendix J, Option A), at least one of the two consecutive periodic Type A tests shall be performed at peak accident pressure (P_a).

Based on Table 1, the last two CPNPP, Unit 1, tests were performed in December 1993 and April 2007. Both tests were performed at a pressure of greater than or equal to 48.66 psig. Therefore, both tests were performed at a pressure higher than the peak calculated design basis internal accident pressure, P_a, which per TS 5.5.16.b for CPNPP, Unit 1, is the peak calculated containment internal pressure for the design basis loss-of-coolant accident of 48.3 psig.

Based on Table 2, the last two CPNPP, Unit 2, tests were performed in December 1997 and October 2012. Both tests were performed at a pressure of greater than or equal to 48.49 psig. Therefore, both tests were performed at a pressure higher than the peak calculated design basis internal accident pressure, P_a, which per TS 5.5.16.b for CPNPP, Unit 2, is the peak calculated containment internal pressure for the design basis loss-of-coolant accident of 48.3 psig.

Marginal allowance for P_a is defined by Section 3.2.12 of ANSI/ANS 56.8-2002. In response to the NRC staff's SCVB RAI-1 dated July 2, 2015, in its letter dated July 29, 2015, the licensee verified that both CPNPP, Units 1 and 2, satisfied the acceptance criteria of NEI 94-01, Revision 3-A, Section 9.2.3, "Extended Test Intervals." The licensee stated, in part, that:

> The ILRT procedures used for the performance of the Unit 1, 1993 and 2007 ILRTs, and the Unit 2, 1997 and 2012 ILRTs, were updated to contain a signed verification step affirming that at no time had the ILRT test pressure fallen below 0.96 P_a. All four tests were signed in the affirmative.

CPNPP, Units 1 and 2, TS 5.5.16 states, in part, that:

> d. Leakage rate acceptance criteria are:
>
> 1. Containment leakage rate acceptance criteria 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 B and Type C tests and ≤ 0.75 L_a for Type A tests;

TS 5.5.16.d.1 establishes the maximum limit for CPNPP, Units 1 and 2, startup following completion of Type A testing at ≤ 0.75 L_a, which equals 0.075 percent of containment air weight per day.

As was noted in SE Section 3.2.1.2 Condition 4, the SG and Reactor Vessel Head Replacement Project in Unit 1 occurred during the 2007 1RF12 refueling outage. The equipment hatch was not of sufficient size to permit the removal and replacement of the SGs or the RVH. To accomplish the removal and replacement of the SGs and the RVH, a CAA was created in the Containment Building. The licensee's July 29, 2015, response to the NRC staff's SCVB RAI-3 dated July 2, 2015, provides a synopsis of the CAA modification process and the restoration of the Unit 1 Containment. Table 1 above indicates that the subsequent Unit 1 post-modification Containment ILRT Type A Test performed on April 14, 2007, was successful with a "as found leakage" of 0.063019 percent containment air weight per day. This was below the TS 5.5.16.d.1 limit of 0.075 percent of containment air weight per day. Accordingly, a CPNPP, Unit 1, restart was allowed.

The CPNPP, Units 1 and 2, containments were designed for a leakage rate L_a not to exceed 0.1 percent by weight of containment air per day at the calculated peak pressure, P_a. As displayed in Tables 1 and 2 for both CPNPP, Units 1 and 2, respectively, there has been substantial margin to the "as found" performance limit as described in TS 5.5.16.c of L_a equal to 0.1 percent weight/day for all historical ILRTs.

As required by NEI 94-01, Revision 3-A, Section 9.1.2, further extensions in test intervals are contingent upon two consecutive, successful periodic Type A tests and the requirements as stated therein in Section 9.2.3.

Past CPNPP, Units 1 and 2, ILRT results have confirmed that the containment is acceptable with respect to the design criterion of 0.1 percent leakage of containment air weight (L_a) per day at the design basis loss-of-coolant accident pressure (P_a). Since the last two Type A tests for CPNPP, Units 1 and 2 had "as found" test results of less than 1.0 L_a, a test frequency of 15 years in accordance with NEI 94-01, Revision 3-A, would be acceptable for both CPNPP units.

Based on the above, CPNPP, Units 1 and 2, ILRT test results and the licensee's responses to SCVB RAI-1 and SCVB RAI-3, the NRC staff concludes that the requirements of Sections 9.1.2 and 9.2.3 of NEI 94-01, Revision 3-A, have been satisfied.

3.2.1.5 Local Leakage Rate Tests: Type C Test Frequencies

As required by 10 CFR 50.54(o), the CPNPP, Units 1 and 2, containments are subject to the requirements set forth in 10 CFR 50, Appendix J. Option B of Appendix J allows that test intervals for Type A, Type B, and Type C testing be determined by using a performance-based approach As explained above, the leakage rate testing requirements of 10 CFR 50, Appendix J, Option B (Type A, Type B, and Type C Tests) and the CISI requirements mandated by 10 CFR 50.55a, together ensure the continued leak-tightness and structural integrity of the containment during its service life.

Type B testing ensures that the leakage rates of individual containment penetration non-valve barrier components is acceptable. Type C testing ensures that individual CIV leakage rates are acceptable. In addition, determining the aggregate Type B and Type C leakage rates support maintaining the leakage tightness of primary containment by monitoring the contribution from the most likely potential leakage paths.

Currently, CPNPP, Units 1 and 2, TS 5.5.16 is implemented in accordance with the guidelines contained in RG 1.163. The licensee has proposed to revise the CPNPP, Units 1 and 2, TS 5.5.16 by replacing Option B implementation document RG 1.163 with NEI 94-01, Revision 3-A, along with the conditions and limitations of NEI 94-01, Revision 2-A, to govern the test frequencies and the grace periods for Type A, Type B, and Type C Tests. Hence, the licensee is applying for an extension of the maximum Type C performance-based test interval from 60 months to 75 months.

By letter dated June 8, 2012 (ADAMS Accession No. ML121030286), the NRC issued an SE, with limitations and conditions, for NEI 94-01, Revision 3. In the SE, the NRC concluded that

NEI 94-01, Revision 3, describes an acceptable approach for implementing the optional performance-based requirements of 10 CFR 50, Appendix J, and is acceptable for referencing by licensees proposing to amend their TS in regards to containment leakage rate testing, subject to the limitations and conditions identified in SE Section 4.0 and summarized in SE Section 5.0. The accepted version of NEI 94-01, Revision 3, was subsequently issued as Revision 3-A. The NEI issued Revision 3-A to NEI 94-01 by letter dated July 31, 2012. With Revision 3-A, the technical report was revised to incorporate the June 8, 2012, NRC final SE.

In its letter dated January 28, 2015, the licensee indicated that CPNPP will meet the limitations and conditions of NEI 94-01, Revision 3-A, Section 4.0. Accordingly, the CPNPP will be adopting in part the testing technical methods and techniques of ANSI/ANS 56.8-2002 as part of its licensing basis. As stated in Section 2.0 of NEI 94-01, Revision 3-A, where technical guidance overlaps between NEI 94-01, Revision 3-A, and ANSI/ANS 56.8–2002, the guidance of NEI 94-01, Revision 3-A, takes precedence.

NRC Staff Evaluation of Conditions and Limitations in NEI 94-01, Revision 3-A

The licensee proposes to invoke NEI 94-01, Revision 3-A, as the implementation document for CPNPP, Units 1 and 2, TS 5.5.16, "Containment Leakage Rate Testing Program," to govern its Type B and Type C LLRT program.

The NRC staff has found that the use of NEI TR 94-01, Revision 3A, is an acceptable reference for use in licensee TSs to extend the Option B to 10 CFR Part 50, Appendix J, Type B test and Type C test intervals beyond 60 months, provided the following two conditions specified in the NRC staff's SE for NEI 94-01, Revision 3, dated June 8, 2012, are satisfied:

Condition 1

> NEI TR 94-01, Revision 3, is requesting that the allowable extended interval for Type C LLRTs be increased to 75 months, with a permissible extension (for non-routine emergent conditions) of nine months (84 months total). The staff is allowing the extended interval for Type C LLRTs be increased to 75 months with the requirement that a licensee's post-outage report include the margin between the Type B and Type C leakage rate summation and its regulatory limit. In addition, a corrective action plan shall be developed to restore the margin to an acceptable level. The staff is also allowing the non-routine emergent extension out to 84-months as applied to Type C valves at a site, with some exceptions that must be detailed in NEI 94-01, Revision 3. At no time shall an extension be allowed for Type C valves that are restricted categorically (e.g. BWR MSIVs [boiling-water reactor main steam isolation valves]), and those valves with a history of leakage, or any valves held to either a less than maximum interval or to the base refueling cycle interval. Only non-routine emergent conditions allow an extension to 84 months.

Licensee's Compliance Statement

Condition 1 presents three separate issues that are required to be addressed. The licensee's response to all the three issues is documented in Section 4.1.6.2 of its letter dated January 28, 2015, and states the following:

ISSUE 1 - The allowance of an extended interval for Type C LLRTs of 75 months carries the requirement that a licensee's post-outage report include the margin between the Type B and Type C leakage rate summation and its regulatory limit.

Licensee's Response to Issue 1

> The post-outage report shall include the margin between the Type B and Type C Minimum Pathway Leak Rate (MNPLR) summation value, as adjusted to include the estimate of applicable Type C leakage understatement, and its regulatory limit of 0.60 L_a.

ISSUE 2 - In addition, a corrective action plan shall be developed to restore the margin to an acceptable level.

Licensee's Response to Issue 2

> When the potential leakage understatement adjusted Type B and C MNPLR total is greater than the CPNPP administrative leakage summation limit of 0.50 L_a, but less than the regulatory limit of 0.6 L_a, then an analysis and determination of a corrective action plan shall be prepared to restore the leakage summation margin to less than the CPNPP administrative limit. The corrective action plan shall focus on those components which have contributed the most to the increase in the leakage summation value and what manner of timely corrective action, as deemed appropriate, best focuses on the prevention of future component leakage performance issues so as to maintain an acceptable level of margin.

ISSUE 3 - Use of the allowed 9-month extension for eligible Type C valves is only authorized for non-routine emergent conditions.

Licensee's Response to Issue 3

> CPNPP will apply the 9-month grace period only to eligible Type C components and only for non-routine emergent conditions. Such occurrences will be documented in the record of tests.

NRC Staff Assessment

The NRC staff has reviewed the requirements of NEI TR 94-01, Revision 3A, against the licensee's statements of compliance for Condition 1. Based on this review, the staff concludes that the licensee acknowledges all the requirements of Condition 1 and that the licensee has established its intent for CPNPP to comply with these requirements.

Condition 2

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. The containment leakage condition monitoring regime involves a portion of the penetrations being tested each refueling outage, nearly all LLRT's being performed during plant outages. For the purposes of assessing and monitoring or trending overall containment leakage potential, the "as-found" minimum pathway leakage rates for the just tested penetrations are summed with the "as-left" minimum pathway leakage rates for penetrations tested during the previous 1 or 2 or even 3 refueling outages. Type C tests involve valves which, in the aggregate, will show increasing leakage potential due to normal wear and tear, some predictable and some not so predictable. Routine and appropriate maintenance may extend this increasing leakage potential. Allowing for longer intervals between LLRTs means that more leakage rate test results from farther back in time are summed with fewer just tested penetrations and that total used to assess the current containment leakage potential. This leads to the possibility that the LLRT totals calculated understate the actual leakage potential of the penetrations. Given the required margin included with the performance criterion and the considerable extra margin most plants consistently show with their testing, any understatement of the LLRT total using a 5-year test frequency is thought to be conservatively accounted for. Extending the LLRT intervals beyond 5 years to a 75-month interval should be similarly conservative provided an estimate is made of the potential understatement and its acceptability determined as part of the trending specified in NEI 94-01, Revision 3, Section 12.1.

When routinely scheduling any LLRT valve interval beyond 60-months and up to 75-months, the primary containment leakage rate testing program trending or monitoring must include an estimate of the amount of understatement in the Type B & C total, and must be included in a licensee's post-outage report. The report must include the reasoning and determination of the acceptability of the extension, demonstrating that the LLRT totals calculated represent the actual leakage potential of the penetrations.

Licensee's Compliance Statement

Condition 2 presents two separate issues that are required to be addressed. The licensee's response to these two issues is documented in Section 4.1.6.2 of its letter dated January 28, 2015, and states the following:

ISSUE 1 - Extending the Type C, LLRT intervals beyond 5 years to a 75-month interval should be similarly conservative provided an estimate is made of the potential understatement and its acceptability determined as part of the trending specified in NEI TR 94-01, Revision 3, Section 12.1.

Licensee's Response to Issue 1

The change in going from a 60-month extended test interval for Type C tested components to a 75-month interval, as authorized under NEI 94-01, Revision 3-A, represents an increase of 25% in the LLRT periodicity. As such, CPNPP will conservatively apply a potential leakage understatement adjustment factor of 1.25 to the As-Left leakage total for each Type C component currently on the 75-month extended test interval. This will result in a combined conservative Type C total for all 75-month LLRT's being "carried forward" and will be included whenever the total leakage summation is required to be updated (either while on line or following an outage). When the potential leakage understatement adjusted leak rate total for those Type C components being tested on a 75-month extended interval is summed with the non-adjusted total of those Type C components being tested at less than the 75-month interval and the total of the Type B tested components, if the MNPLR is greater than the CPNPP administrative leakage summation limit of 0.50 L_a, but less than the regulatory limit of 0.6 L_a, then an analysis and corrective action plan shall be prepared to restore the leakage summation value to less than the CPNPP administrative leakage limit. The corrective action plan shall focus on those components which have contributed the most to the increase in the leakage summation value and what manner of timely corrective action, as deemed appropriate, best focuses on the prevention of future component leakage performance issues.

ISSUE 2 - When routinely scheduling any LLRT valve interval beyond 60-months and up to 75-months, the primary containment leakage rate testing program trending or monitoring must include an estimate of the amount of Type C understatement in the Type B and C total, and must be included in a licensee's post-outage report. The report must include the reasoning and determination of the acceptability of the extension, demonstrating that the LLRT totals calculated represent the actual leakage potential of the penetrations.

Licensee's Response to Issue 2

If the potential leakage understatement adjusted leak rate MNPLR is less than the CPNPP administrative leakage summation limit of 0.50 L_a, then the acceptability of the 75-month LLRT extension for all affected Type C components has been adequately demonstrated and the calculated local leak rate total represents the actual leakage potential of the penetrations.

In addition to Condition 1, Parts 1, 2, which deal with the MNPLR Type B and C summation margin, NEI 94-01, Revision 3-A also has a margin related requirement as contained in Section 12.1, Report Requirements.

A post-outage report shall be prepared presenting results of the previous cycle's Type B and Type C tests, and Type A, Type B and Type C tests, if performed during that outage. The technical contents of the report are generally described in ANSI/ANS-56.8-2002 and shall be available on-site for NRC review. The

report shall show that the applicable performance criteria are met, and serve as a record that continuing performance is acceptable. The report shall also include the combined Type B and Type C leakage summation, and the margin between the Type B and Type C leakage rate summation and its regulatory limit. Adverse trends in the Type B and Type C leakage rate summation shall be identified in the report and a corrective action plan developed to restore the margin to an acceptable level.

At CPNPP, in the event an adverse trend in the aforementioned potential leakage understatement adjusted Type B and C summation is identified, and then an analysis and determination of a corrective action plan shall be prepared to restore the trend and associated margin to an acceptable level. The corrective action plan shall focus on those components which have contributed the most to the adverse trend in the leakage summation value and what manner of timely corrective action, as deemed appropriate, best focuses on the prevention of future component leakage performance issues.

At CPNPP an adverse trend is defined as three (3) consecutive increases in the final pre-RCS [reactor coolant system] Mode Change Type B and C MNPLR leakage summation values, as adjusted to include the estimate of applicable Type C leakage understatement, as expressed in terms of L_a.

NRC Staff Assessment

The NRC staff has reviewed the requirements of NEI TR 94-01, Revision 3, against the licensee's statements of compliance for Condition 2. Based on this review, the staff concludes that the licensee acknowledges all the requirements of Condition 2 and that the licensee has established its intent for CPNPP to comply with these requirements.

Summation

Based on the above evaluation of each condition, the NRC staff determined that the licensee has adequately addressed both conditions in Section 4.0 of the NRC's SE for TR NEI 94-01, Revision 3-A. Therefore, the staff concludes that it is acceptable for CPNPP, Units 1 and 2, to adopt TR NEI 94-01, Revision 3-A, as the implementation document in TS 5.5.16, "Containment Leakage Rate Testing Program."

3.2.1.6 CPNPP Type B Test and Type C Test Performance History

TS 5.5.16.d, "Containment Leakage Rate Testing Program," states, in part, that:

d. Leakage rate acceptance criteria are:

1. Containment leakage rate acceptance criteria is $\leq 1.0\ L_a$. 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 B and Type C tests and $\leq 0.75\ L_a$ for Type A tests;

The NRC staff reviewed the local leak rate summaries contained in Table 4.1.5-1, "Unit 1 Type B and C LLRT As-Found/As-Left Trend Summary," and Table 4.1.5-2, "Unit 2 Type B and C LLRT As-Found/As-Left Trend Summary," of Attachment 1 to the licensee's letter dated January 28, 2015.

The data contained in Tables 4.1.5-1 and 4.1.5-2 supported the following conclusions:

- The "As-Found" minimum pathway leak rate average for CPNPP Unit 1, shows an average of 5.67 percent of 0.6 L_a with a high of 7.36 percent of 0.6 L_a (i.e., 0.044 L_a).

- The "As-Left" maximum pathway leak rate average for CPNPP Unit 1 shows an average of 14.5 percent of 0.6 L_a with a high of 19.62 percent of 0.6 L_a (i.e., 0.118 L_a).

- The "As-Found" minimum pathway leak rate average for CPNPP, Unit 2, shows an average of 5.53 percent of 0.6 L_a with a high of 7.17 percent of 0.6 L_a (i.e., 0.043 L_a).

- The "As-Left" maximum pathway leak rate average for CPNPP, Unit 2, shows an average of 12.97 percent of 0.6 L_a with a high of 15.85 percent of 0.6 L_a (i.e., 0.095 L_a).

Based on the review of the data contained in Tables 4.1.5-1 and 4.1.5-2, the NRC staff concluded that the aggregate results of the "As-Found Min Path" and "As-Left Min Path" for all the Type B and C tests from 2005 through 2014 demonstrates a history of successful tests since the aggregate test results were significantly less than the Type B and Type C test TS limit of < 0.60 L_a (i.e., 151,000 standard cubic centimeters per minute) contained in TS 5.5.16.d.1.

In the July 2, 2015, SCVB RAI-4 (also refer to EMCB RAI-5), the NRC staff inquired about the following items described in the CPNPP, Units 1 and 2, program Type B and Type C extended performance-based test intervals contained in Section 4.1.5 of Attachment 1 of the licensee's letter dated January 28, 2015:

- the percentage of the total number of Unit 1 Type B tested components that are on 120-month extended performance-based test intervals is 55 percent;

- the percentage of the total number of Unit 1 Type C tested components that are on 60-month extended performance-based test intervals is 28 percent;

- the percentage of the total number of Unit 2 Type B tested components that are on 120-month extended performance-based test intervals is 5 percent; and

- The percentage of the total number of Unit 2 Type C tested components that are on 60-month extended performance-based test intervals is 29 percent.

In particular, the NRC staff inquired about the low percentages of the total number of Type B and Type C tested components that are on the maximum test intervals (120 months for Type B

and 60 months for Type C) and, in particular, about the small percentage of Type B tested components on extended test intervals at Unit 2 (i.e., 5 percent).

In its RAI response dated July 29, 2015, the licensee stated that the performance evaluations required by NEI 94-01, Revision 0, Sections 10.2.1.2, "Extended Test Intervals (Except Containment Airlocks)," and Section 11.0, "Bases for Performance and Risk-Based Testing Frequencies for Type A, Type B, and Type C Tests," had not been completed for the Unit 1 and 2 Type B and C penetrations. Otherwise, more Type B and Type C penetration components would have been placed on extended intervals. The licensee indicated that there was nothing to be inferred from the low percentages. The NRC staff found the response acceptable.

The NRC staff reviewed the corrective actions identified in Table 4.1.5-3, "Unit 1 Type C LLRT Program Implementation Review," of Attachment 1 to the licensee's letter dated January 28, 2015, taken for the valves that failed the most recent Unit 1 Type C LLRT program tests during the refueling outages of spring 2013 and fall 2014. The NRC staff concludes that adequate corrective actions for the Unit 1 valves that failed their LLRTs had been performed.

The NRC staff reviewed the corrective actions identified in Table 4.1.5-4, "Unit 2 Type C LLRT Program Implementation Review," of Attachment 1 to the licensee's letter dated January 28, 2015, taken for the valves that failed the most recent Unit 2 Type C, LLRT program tests during the refueling outages of fall 2012 and spring 2014. The NRC staff concludes that adequate corrective actions for the Unit 2 valves that failed their LLRTs had been performed.

In summary, the NRC staff concludes that:

- any lack of information or any discrepancies contained in the licensee's submittal dated January 28, 2015, were adequately addressed by the licensee in its response to the NRC staff's RAI by letter dated July 29, 2015;

- the cumulative Type B and C test results were below the acceptance limit of TS 5.5.16.d.1; and

- the licensee has a corrective action program that appropriately addresses poorly performing valves.

Therefore, the NRC staff concludes that the licensee is effectively implementing the Type B and Type C leakage rate test program, as required by Option B of 10 CFR 50, Appendix J.

3.2.1.7 Containment In-Service Inspection Program

In Section 4 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that (1) the CPNPP CISI program establishes the requirements for the examination and testing of Class MC and Class CC components at CPNPP, Units 1 and 2, in accordance with the ASME Code Section XI, Subsections IWE and IWL, as required by 10 CFR 50.55a; and (2) the administrative procedures and inspection schedule described in the CISI program, combined with applicable CPNPP and approved vendor procedures, constitute the CISI portion of the 10-year inservice inspection program.

The operating experience relative to the moisture barrier at the interface of the concrete base floor and the containment wall steel liner has been discussed in Section 3.2.1.2 of this SE.

By letter dated July 29, 2015, in response to the EMCB RAI-6, the licensee provided the following information regarding the results of IWE/IWL inspections, since the last Type A test performed in 2007 for Unit 1 and in 2012 for Unit 2, and corrective actions taken to disposition them.

a) 2009 and 2014 IWL examinations of Unit 1 containment were performed satisfactorily with no recordable or significant indications.

b) 2014 IWL examination of Unit 2 was performed satisfactorily with no recordable or significant indications.

c) 2008 IWE examination of the Unit 1 Equipment Hatch identified two pins with missing bottom cotter pins. Equipment Hatch was re-inspected following replacement of missing cotter pins and found to be acceptable.

d) 2010 IWE examination of the Unit 1 Emergency Airlock identified a loose nut on 1BS-0202 equalizing valve 4-bolt flange. CR-2010-004111 was issued to rework the loose nut. The bolted connection was reexamined and found to be acceptable.

e) 2013 IWE examination of Unit 1 was performed satisfactorily with no recordable or significant indications.

f) 2014 IWE examination of Units 1 and 2 was performed satisfactorily with no recordable or significant indications.

In Section 4.1.10 of Attachment 1 to its letter dated January 28, 2015, the licensee provided information regarding the NRC Information Notice 2014-07, "Degradation of Leak-Chase Channel Systems for Floor Welds of Metal Containment Shell and Concrete Containment Metallic Liner," dated May 5, 2014 (ADAMS Accession No. ML14070A114), and stated that the CPNPP design is different than the design described in the NRC Information Notice 2014-07. The licensee stated that CPNPP performs visual inspections of the leak chase pipes according to the CISI program, which will occur three times in a 10-year inspection interval along with the ILRTs to ensure leak-tight integrity of the containment liner. The operating experience relative to the plug-to-coupling pipe surface of the leak chase channel test piping has been discussed in Section 3.2.1.2 of this SE.

In Section 4.1.1 of Attachment 1 to its letter dated January 28, 2015, the licensee described the CPNPP Protective Coatings Program which provides a procedure for performing and documenting a complete visual inspection of coated surfaces within the containment building at a minimum frequency of once each refueling outage. In Section 4.1.8 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that (1) the containment liner coatings for Units 1 and 2 have been identified as deficient from aging, possible application errors, and maintenance wear/damage; (2) while performing the walkdowns for the Containment Coating Monitoring Report (CCMR) during Unit 1 refueling outage 1RF14 (2010), numerous areas of degraded coating were found with sizes never before seen. The walkdowns added 323.7

square feet (ft^2) of degraded coatings to the CCMR. In comparison to Unit 2 refueling outage 2RF11, 22.40 ft^2 was added, and for 1RF13, 130 ft^2 was added; (3) CR-2010-003462 was written to trend an abnormal increase in degraded coatings. During subsequent outages the Protective Coatings Program has been increasing margin (i.e., more square footage is being remediated than is being identified degraded). Corrective action reports are written to track progress with regards to the recovery of the containment coatings and documenting the difference between the scheduled remediation and what was actually accomplished during each outage.

Despite the operating experience regarding the containment liner coating described above, in Section 4.1.9 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that, to date, CPNPP has not identified any degradation of the containment liner, penetrations, hatches, or their pressure-retaining bolting.

Based on the results of the recent IWE/IWL inspections discussed above, the NRC staff determined that there has not been evidence, to date, of significant degradation of the CPNPP, Units 1 and 2, containment structures, and the degradations noted have been entered into the CPNPP corrective action program, and appropriately managed and/or corrected. Based on the above evaluation, the NRC staff concludes that the licensee is adequately implementing its CISI program to monitor and manage age-related degradation of the CPNPP, Units 1 and 2, containment structures.

3.2.1.8 Conclusion of NRC Staff Deterministic Evaluation of the Proposed Extension of ILRT and LLRT Test Intervals

The NRC staff reviewed the Type A, Type B, and Type C leakage test results related to the licensee's proposal to extend the 10 CFR 50, Appendix J test intervals.

The ILRT results provided in Section 3.3 of Attachment 1 of the licensee's letter dated January 28, 2015, indicate that the previous two consecutive Type A tests at CPNPP, Units 1 and 2, were successful with containment performance leakage rates less than the maximum allowable containment leakage rate of 0.10 percent containment air weight per day (1.0 L_a at P_a) and less than the Type A test TS limit of ≤ 0.75 L_a contained in TS 5.5.16.d.1. Based on the results of the IWE/IWL inspections, the NRC staff concludes that the licensee is adequately implementing its CISI program to monitor and manage age related degradation of the CPNPP, Units 1 and 2, containment structures. Therefore, the NRC staff concludes that the performance history of Type A tests and CISI program implementation supports extending the current ILRT interval on a permanent basis to 15 years as permitted by NEI 94-01, Revision 3-A and the conditions and limitations of NEI 94-01, Revision 2-A.

The NRC staff reviewed the local leak rate summaries contained in Tables 4.1.5-1 and 4.1.5-2 of Attachment 1 to the licensee's letter dated January 28, 2015, and notes that the aggregate results of the "As-Found Min Path" and "As-Left Min Path" for all the recent Type B and C tests are less than the Type B and Type C test TS limit of < 0.60 L_a contained in TS 5.5.16.d.1. The staff reviewed the corrective actions described in Table 4.1.5-3 to Attachment 1 of the licensee's letter dated January 28, 2015, taken for the valves that failed the most recent Unit 1 Type C LLRT program tests during the refueling outages of spring 2013 and fall 2014, and notes that adequate corrective actions for the failed valves has been performed. The staff reviewed the

corrective actions identified in Table 4.1.5-4 to Attachment 1 of letter dated January 28, 2015, taken for the valves that failed the most recent Unit 2 Type C LLRT program tests during the refueling outages of fall 2012 and spring 2014 and notes that adequate corrective actions for the failed valves has been performed. Therefore, based on the review of the licensee's past testing results and corrective actions, the NRC staff concludes that the licensee is effectively implementing the Type B and Type C leakage rate test program, as required by 10 CFR 50, Appendix J, Option B. Accordingly, the NRC staff concludes that the performance history of Type B tests and Type C tests supports extending the current Type C test interval to 75 months as permitted by NEI 94-01, Revision 3-A.

3.3 Probabilistic Risk Assessment

3.3.1 Background

Section 9.2.3.1, "General Requirements for ILRT Interval Extensions beyond Ten Years," of NEI 94-01, Revision 3-A, states that plant-specific confirmatory analyses are required when extending the Type A ILRT interval beyond 10 years. Section 9.2.3.4, "Plant-Specific Confirmatory Analyses," of NEI 94-01 states that the assessment should be performed using the approach and methodology described in Electric Power Research Institute (EPRI) Technical Report (TR) 1018243,[2] "Risk Impact Assessment of Extended Integrated Leak Rate Testing Intervals." The analysis is to be performed by the licensee and retained in the plant documentation and records as part of the basis for extending the ILRT interval.

In the SE dated June 25, 2008, the NRC staff found the methodology in NEI 94-01, Revision 2, and EPRI TR-1009325, Revision 2, acceptable for referencing by licensees proposing to amend their TS to permanently extend the ILRT interval to 15 years, provided certain conditions are satisfied. These conditions, set forth in Section 4.2 of the safety evaluation report (SER) for EPRI TR-1009325, Revision 2, stipulate that:

1. The licensee submits documentation indicating that the technical adequacy of their PRA is consistent with the requirements of Regulatory Guide (RG) 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," relevant to the ILRT extension application. Additional application-specific guidance on the technical adequacy of a PRA used to extend ILRT intervals is provided in the SER for EPRI TR-1009325, Revision 2.

2. The licensee submits documentation indicating that the estimated risk increase associated with permanently extending the ILRT surveillance interval to 15 years is small and consistent with the clarification provided in Section 3.2.4.6[3] of the SER for EPRI TR-1009325, Revision 2.

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[2] Electric Power Research Institute (EPRI) TR-1018243, is also identified as EPRI TR-1009325, Revision 2-A. This report is publicly available and can be found at www.epri.com by typing "1018243" in the search field box.

[3] Section 4.2 of the safety evaluation report for Electric Power Research Institute (EPRI) TR-1009325, Revision 2, indicates that the clarification regarding small increases in risk is provided in Section 3.2.4.5; however, the clarification is actually provided in Section 3.2.4.6.

3. The methodology in EPRI TR-1009325, Revision 2, is acceptable provided the average leak rate for the pre-existing containment large leak accident case (i.e., accident case 3b) used by licensees is assigned a value of 100 times the maximum allowable leakage rate (La) instead of 35 L_a.

4. An LAR is required in instances where containment over-pressure is relied upon for emergency core cooling system (ECCS) performance.

3.3.2 Plant-Specific Risk Evaluation

The licensee performed a risk impact assessment for extending the Type A containment ILRT interval to once in 15 years. The risk assessment was provided as Attachment 6 to the letter January 28, 2015. Additional information was provided by the licensee in response to NRC RAIs by letter dated July 29, 2015.

In Section 4.2.1 of Attachment 1 of its letter dated January 28, 2015, the licensee stated that the plant-specific risk assessment follows the guidance in NEI 94-01, Revision 3-A,[4] the methodology described in EPRI TR-1018243, Revision 2-A of EPRI TR-1009325, and the NRC regulatory guidance outlined in RG 1.174, Revision 2, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," May 2011 (ADAMS Accession No. ML100910006). Additionally, the licensee used the methodology from Calvert Cliffs Nuclear Power Plant to assess the risk from undetected containment leaks due to steel liner corrosion.

The licensee addressed each of the four conditions for the use of EPRI TR-1009325, Revision 2, which are listed in Section 4.2 of the NRC's SER. A summary of how each condition has been met is provided in the sections below.

3.3.3 Technical Adequacy of the PRA

The first condition stipulates that the licensee submits documentation indicating that the technical adequacy of their PRA is consistent with the requirements of RG 1.200 relevant to the ILRT extension application.

Consistent with the information provided in Regulatory Issue Summary (RIS) 2007-06, "Regulatory Guide 1.200 Implementation," dated March 22, 2007 (ADAMS Accession No. ML070650428), the NRC staff will use Revision 2 of RG 1.200 (ADAMS Accession No. ML090410014), to assess technical adequacy of the PRA used to support risk-informed applications received after March 2010. In Section 3.2.4.1 of the SER for NEI 94-01, Revision 2, and EPRI TR-1009325, Revision 2, the NRC staff states that Capability Category I of the ASME PRA standard shall be applied as the standard for assessing PRA quality for ILRT extension applications, since approximate values of core damage frequency (CDF) and large

[4] Nuclear Energy Institute, NEI 94-01, Revision 3-A, added guidance for extending Type C LLRT surveillance intervals beyond 60 months. The guidance for extending Type A ILRT surveillance intervals beyond 10 years is the same as that in Revision 2-A.

early release frequency (LERF) and their distribution among release categories are sufficient to support the evaluation of changes to ILRT frequencies.

The licensee stated that the CPNPP PRA model used for the ILRT application is a Level 1 and Level 2 model for internal events, including internal flood, for at-power operations. The licensee described the process used for controlling the model and for ensuring that the model reflects the as-built as-operated plant. CPNPP has a process for continued PRA maintenance and update, including procedures for regularly scheduled and interim PRA model updates and for tracking issues identified as potentially affecting the PRA model. The licensee stated that at the time of the LAR submittal, there were no plant changes of significance not incorporated into the PRA model.

The licensee stated that in March 2011, the Pressurized Water Reactor Owner's Group (PWROG) performed a full-scope peer review of CPNPP's internal events and internal flooding PRA against the ASME PRA Standard (ASME/ANS RA-Sa-2009) and RG 1.200, Revision 2. The peer review team identified 21 Findings and 55 Observations / Suggestions and four Best Practices. The licensee stated that Revision 4A of the PRA model implemented resolution of the peer review findings. The NRC staff notes that this revision of the licensee's PRA has been previously reviewed by the NRC and found acceptable for the risk-informed application to adopt the NRC-approved Technical Specifications Task Force (TSTF) traveler TSTF-425-A, Revision 3, "Relocate Surveillance Frequencies to Licensee Control-RITSTF [Risk-Informed TSTF] Initiative 5b," in License Amendment No. 156 for CPNPP, Units 1 and 2, dated June 29, 2012 (ADAMS Accession No. ML12067A244). The licensee stated that Revision 4B of the PRA model was a minor periodic update. The licensee further stated that after addressing the peer review findings, the current model of record (MOR), Revision 4B of the CPNPP internal events PRA, meets Capability Category II requirements for all but three supporting requirements (LE-C11, IFEV-A6, and IFSN-A6) which were met at Capability Category I. During its review for the TSTF-425-A application, the NRC staff found that the three supporting requirements (LE-C11, IFEV-A6, and IFSN-A6) were met at Capability Category I and that all other supporting requirements identified by the peer review team as "not met" have been resolved (see Section 3.2.1.4.1 of the SE for TSTF-425-A). Therefore, based on NRC's review of CPNPP's internal events PRA performed for TSTF-425-A application, the licensee's internal events PRA meets the requirements of RG 1.200, Revision 2, at the Capability Category I as required for the ILRT extension application.

In Section 3.2.4.2 of the SER for NEI 94-01, Revision 2, and EPRI TR-1009325, Revision 2, the NRC staff stated:

> Although the emphasis of the quantitative evaluation is on the risk impact from internal events, the guidance in EPRI Report No. 1009325, Revision 2, Section 4.2.7, "External Events," states that: "Where possible, the analysis should include a quantitative assessment of the contribution of external events (e.g., fire and seismic) in the risk impact assessment for extended ILRT intervals." This section also states that: "If the external event analysis is not of sufficient quality or detail to directly apply the methodology provided in this document [(i.e., EPRI Report No. 1009325, Revision 2)], the quality or detail will be increased or a suitable estimate of the risk impact from the external events should be performed." This assessment can be taken from existing, previously

submitted and approved analyses or other alternate method of assessing an order of magnitude estimate for contribution of the external event to the impact of the changed interval.

The licensee performed an analysis of the impact of external events in Section 7.3 of Attachment 6 to its letter dated January 28, 2015. The licensee's assessment included an estimate of fire risk and high winds risk based on the Individual Plant Examination of External Events (IPEEE). The fire risk was calculated during IPEEE using the EPRI Fire Induced Vulnerability Evaluation (FIVE) method. The IPEEE high winds risk evaluation assessed the risk due to tornadoes. The licensee stated that external floods and transportation events and other hazards were screened out during IPEEE and no core damage or LERF frequencies were developed for these hazards. The licensee further assessed that there were no significant changes to the site since the IPEEE with regards to external floods, transportation events and other hazards. The NRC staff generally finds the use of the IPEEE studies in assessing the external events impact on the ILRT extension applications to be acceptable once those studies are evaluated periodically considering new information. The LAR does not provide any information to indicate a reassessment of IPEEE studies results with new information on external hazards. Therefore, although results of IPEEE studies included in the LAR provide insights on the risk of external hazards, the staff considers aspects of the IPEEE studies, such as results obtained from the IPEEE FIVE methodology, to be outdated. Nevertheless, these IPEEE studies do provide an order of magnitude estimate for contribution of the external events, as expected for the application. The staff finds that using some outdated external hazards analyses has no impact on the conclusions of this SE because sufficient margin exists between the risk acceptance criteria and the risk associated with the ILRT extension, as discussed in Section 3.3.4 of this SE.

The external events risk assessment provided in the LAR provided no quantification of seismic risk. The licensee stated that no numerical estimate for seismic CDF was available. The licensee stated that the seismic risk is low because the updated Ground Motion Response Spectrum (GMRS) generated within the framework of the Post Fukushima Recommendation 2.1 (provided by Luminant letter dated March 27, 2014; ADAMS Accession No. ML14099A197) is below the Safe Shutdown Earthquake for all frequencies. In an RAI dated July 2, 2015, the NRC staff requested the licensee to include an estimate of seismic risk in the external events risk assessment. In its July 29, 2015, response to APLA RAI-1b, the licensee used the seismic CDF values from the NRC study published in "Results of Safety/Risk Assessment of Generic Issue 199, 'Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States on Existing Plants,'" August 2010 (ADAMS Accession No. ML100270582), and provided updated estimates of change in LERF due to ILRT extension for combined internal and external events, as discussed in Section 3.3.4 of this SE. Based on the discussion above, the NRC staff concludes that the licensee has documented the technical adequacy of their PRA consistent with the requirements of RG 1.200 relevant to the ILRT extension as per the first Condition of NEI 04-01, Revision 3-A.

The licensee's internal events PRA meets the requirements of the current ASME PRA standard and Revision 2 of RG 1.200 at Capability Category I, as required for the ILRT application. The licensee also included a quantitative assessment of the contribution of external events, including the effects of internal fires, seismic events, and high winds. The NRC staff considers aspects of licensee's assessment of external hazards to be outdated. Nevertheless, the licensee provided

an order of magnitude estimate for contribution of the external events, as expected for the application. The staff finds that the use of outdated information on external events has no impact on the conclusions of this SE because sufficient margin exists between the risk acceptance criteria and the risk associated with the ILRT extension, as discussed in Section 3.3.4 of this SE. Therefore, the NRC staff concludes that the internal events PRA model used by the licensee is of sufficient technical adequacy and the insights obtained from IPEEE studies on the risk of external hazards are sufficient to support the evaluation of changes to ILRT frequencies. Accordingly, the first condition is met.

3.3.4 Estimated Risk Increase

The second condition stipulates that the licensee submits documentation indicating that the estimated risk increase associated with permanently extending the ILRT interval to 15 years is small, and consistent with the guidance in RG 1.174 and the clarification provided in Section 3.2.4.5 of the NRC's SER for NEI 94-01, Revision 2, and EPRI TR-1009325, Revision 2. Specifically, a small increase in population dose should be defined as an increase in population dose of less than or equal to either 1.0 person-roentgen equivalent man (rem) per year or 1 percent of the total population dose, whichever is less restrictive. In addition, a small increase in conditional containment failure probability (CCFP) should be defined as a value marginally greater than that accepted in previous one-time 15-year ILRT extension requests. This would require that the increase in CCFP be less than or equal to 1.5 percentage points. Additionally, for plants that rely on containment over-pressure for net positive suction head for ECCS injection, both CDF and LERF will be considered in the ILRT evaluation and compared with the risk acceptance guidelines in RG 1.174. As discussed in Section 3.3.6 of this SE, CPNPP, Units 1 and 2, do not rely on containment over-pressure for ECCS performance. Thus, the associated risk metrics include LERF, population dose, and CCFP.

The licensee reported the results of the plant-specific risk assessment in Section 4.2.3 of Attachment 1 to its letter dated January 28, 2015. Details of the risk assessment are provided in Attachment 6. The reported risk impacts are based on a change in test frequency from three tests in 10 years (the test frequency under 10 CFR 50 Appendix J, Option A) to one test in 15 years. The following conclusions can be drawn from the licensee's analysis associated with extending the Type A ILRT frequency:

1. The reported increase in LERF for internal events is 4.78E-08/year for Unit 1 and 4.79E-08/year for Unit 2. As reported in the licensee's July 29, 2015, response to APLA RAI-1c, the increase in LERF for combined internal and external events is 3.23E-07/year for both units. The risk contribution from external events includes the effects of internal fires, seismic events and high winds, as discussed in Section 3.3.3 of this SE. These changes in risk are considered to be "small" (i.e., between 1E-06/year and 1E-07/year) per the acceptance guidelines in RG 1.174. An assessment of total baseline LERF is required to show that the total LERF is less than 1E-05/year. In its response to APLA RAI-1c, the licensee estimated the total LERF for internal and external events as 2.59E-06/year for both units. The total LERF, given the increase in ILRT interval, is below the acceptance guideline of 1E-05/year in RG 1.174 for a "small" change.

2. The reported change in Type A ILRT frequency from three in 10 years to once in 15 years results in a reported increase in the total population dose of 1.05E-2 person-rem/year for both units, as provided by the licensee in its July 29, 2015, response to APLA RAI-2. The reported increase in total population dose is below the values provided in EPRI TR-1009325, Revision 2-A, and defined in Section 3.2.4.6 of the NRC's SER for NEI 94-01, Revision 2. Thus, this increase in the total integrated plant risk for the proposed change is considered small and supportive of the proposed change.

3. The increase in CCFP due to change in test frequency from three in 10 years to once in 15 years is 0.88 percent for Unit 1 and 0.90 percent for Unit 2. This value is below the acceptance guidelines in Section 3.2.4.6 of the NRC's SER for NEI 94-01, Revision 2.

Based on the risk assessment results, the NRC staff concludes that the increase in LERF is small and consistent with the acceptance guidelines of RG 1.174, and the increase in the total population dose and the magnitude of the change in the CCFP for the proposed change are small and supportive of the LAR. The defense-in-depth philosophy is maintained as the independence of barriers will not be degraded as a result of the requested change, and the use of the three quantitative risk metrics collectively ensures that the balance between prevention of core damage, prevention of containment failure, and consequence mitigation is preserved. Accordingly, the second condition is met.

3.3.5 Leak Rate for the Large Pre-Existing Containment Leak Rate Case

The third condition stipulates that in order to make the methodology in EPRI TR-1009325, Revision 2, acceptable, the average leak rate for the pre-existing containment large leak rate accident case (i.e., accident case 3b) used by the licensees shall be 100 L_a instead of 35 L_a. As noted by the licensee in the table in Section 4.2.1 of Attachment 1 to its letter dated January 28, 2015, the methodology in EPRI TR-1009325, Revision 2-A, incorporated the use of 100 L_a as the average leak rate for the pre-existing containment large leakage rate accident case (accident case 3b), and this value has been used in the CPNPP plant-specific risk assessment. Accordingly, the third condition is met.

3.3.6 Applicability if Containment Over-pressure is Credited for ECCS Performance

The fourth condition stipulates that in instances where containment over-pressure is relied upon for ECCS performance, an LAR is required to be submitted. In Section 4.2.1 of Attachment 1 to its letter dated January 28, 2015, the licensee stated that containment over-pressure is not relied upon for ECCS performance for CPNPP. Accordingly, the fourth condition is met.

3.3.7 Conclusion for PRA Evaluation for the Proposed Extension of ILRT and LLRT Test Intervals

As explained above, the NRC staff determined that the methodology in NEI 94-01, Revision 2, and EPRI TR-1009325, Revision 2, is acceptable for referencing by licensees proposing to amend their TS to permanently extend the ILRT interval to 15 years, provided conditions set forth in Section 4.2 of the SER for EPRI TR-1009325, Revision 2 and stated in Section 3.3.1 of

this SE are satisfied. The NRC staff reviewed the licensee's risk impact assessment for extending the Type A containment ILRT to once in 15 years against these conditions. As discussed above in sections 3.3.3 through 3.3.6, the NRC staff concluded that the licensee's risk impact assessment met the requirements of all these conditions and the analysis supports the licensee's request for extending the ILRT interval from 10 to 15 years.

3.4 Results of the NRC Staff Evaluation

Based on the NRC staff's review of the licensee's request, the regulatory and technical requirements stated in SE Section 2.0, and the NRC staff technical evaluations discussed in Sections 3.2 and 3.3 of this SE, the staff concludes that there is reasonable assurance that the licensee has addressed the NRC conditions to demonstrate acceptability of adopting NEI 94-01, Revision 3-A, and the conditions and limitations specified in NEI 94-01, Revision 2-A, as the 10 CFR 50 Appendix J, Option B implementation documents.

The NRC staff also concludes that the licensee adequately implemented its Containment Leakage Rate Testing Program (i.e., Type A, B, and C leakage tests), for the CPNPP, Units 1 and 2, containment structures. The results of the CISI, past ILRTs, and recent LLRTs demonstrate acceptable performance of the CPNPP, Units 1 and 2, containments and demonstrate that the structural and leak-tight integrity of the containment structures are being adequately maintained. The staff also concludes that the structural and leak-tight integrity of the CPNPP, Units 1 and 2, containments will continue to be monitored and maintained if the licensee adopts NEI 94-01, Revision 3-A, and the conditions and limitations specified in NEI 94-01, Revision 2-A, as the 10 CFR 50 Appendix J, Option B implementation documents. Accordingly, the NRC staff determined that there is reasonable assurance that the structural and leak-tight integrity, for both containments, will continue to be maintained, without undue risk to public health and safety, if the current Type A test intervals are extended to 15 years and if the current Type C test intervals are extended to 75 months.

The NRC staff concludes that it is acceptable for CPNPP, Units 1 and 2, to: (1) revise TS 5.5.16, "Containment Leakage Rate Testing Requirements," to adopt NEI 94-01, Revision 3-A and the conditions and limitations specified in NEI 94-01, Revision 2-A, as the 10 CFR 50 Appendix J, Option B implementation documents; (2) extend on a permanent basis the Type A test interval up to 15 years; and (3) extend the Type C test intervals up to 75 months.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The

Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on March 31, 2015 (80 FR 17092). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

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

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Date: December 30, 2015

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

Sincerely,

/RA LRegner for/

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures:
1. Amendment No. 165 to NPF-87
2. Amendment No. 165 to NPF-89
3. Safety Evaluation

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NAME	ASallman (A)	AGhosh	RPascarelli	BSingal (LRegner for)	
DATE	12/9/15	12/21/15	12/29/15	12/30/15	

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