Entergy

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Christopher J. Wamser
Site Vice President

BVY 13-052

June 12, 2013

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

SUBJECT: Response to Request for Additional Information Regarding Relief Request ISI-05
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

REFERENCES:
1. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Inservice Inspection Program for the Fifth Ten-Year Interval," BVY 13-018, dated March 27, 2013

Dear Sir or Madam:

In Reference 1, Entergy Nuclear Operations, Inc. (Entergy) submitted the inservice inspection (ISI) program and relief requests for the fifth 10-year interval for Vermont Yankee Nuclear Power Station. This letter provides responses to a request for additional information (RAI) received on April 29, 2013 and revised on May 28, 2013.

This letter contains no new regulatory commitments.

Should you have any questions concerning this letter or require additional information, please contact Mr. Robert Wanczyk at 802-451-3166.

Sincerely,

for CJW

CJW/plc

A047
NRR

Attachments: 1. Response to Request for Additional Information

Enclosures: 1. Revised Relief Request ISI-05

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Attachment 1

Vermont Yankee Nuclear Power Station

Response to Request for Additional Information

REQUEST FOR ADDITIONAL INFORMATION
RELIEF REQUEST ISI-05
USE OF ALTERNATIVE EDITION AND ADDENDA OF THE ASME CODE
VERMONT YANKEE NUCLEAR POWER STATION
ENTERGY NUCLEAR OPERATIONS, INC
DOCKET NO. 50-271

By letter dated March 27, 2013 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML13092A204), Entergy Nuclear Operations (the licensee) submitted the fifth ten-year inservice inspection (ISI) program for the Vermont Yankee Nuclear Power Station. Included in the submittal is Relief Request ISI-05 which is related to the proposed alternative to use the current 2001 edition through the 2003 addenda in lieu of using the 2007 edition through the 2008 addenda of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for certain ISI activities such as the performance of repair/replacement, pressure testing and nondestructive examination for a limited duration (from 2013 to 2017). To complete its review, the Nuclear Regulatory Commission (NRC) staff requests the following additional information.

1. Section 5 of the proposed relief request states that the duration for the proposed relief request is from September 31, 2013 through December 31, 2017 and that the licensee will request NRC approval for the Entergy fleet ISI related activities to be updated to the most current ASME Code prior to December 31, 2017. (1) September has 30 days, not 31 days. Please revise the date in the relief request and other parts of the March 27, 2013 submittal. (2) The March 27, 2013, submittal states that the fifth 10-year ISI interval starts on September 1, 2013. Discuss why the proposed relief request is effective from September 31 [30?], 2013 instead of September 1, 2013. (3) Discuss why December 31, 2017 was selected as the end date for the proposed relief request. (4) Discuss whether the "most current ASME Code" as stated above would be the 2007 edition through the 2008 addenda or the edition and addenda of the ASME Code incorporated by reference in the 10 CFR 50.55a at the time of submitting the update. (4) Identify and provide the approximate date of the refueling outages in which the ISI activities will be based on the 2001 edition through the 2003 addenda in lieu of the 2007 edition through the 2008 addenda.

Response

Subsection (1)

The duration of the interval is September 1, 2013 – August 31, 2023; therefore, the date has been updated, as appropriate, in the revised proposed alternative to "Maintaining ISI Related Activities on the 2001E/2003A ASME Section XI Code." This revised proposed alternative is enclosed with this letter and will replace in its entirety "Request ISI-05" enclosed in Entergy letter BVY 13-018 to the NRC dated March 27, 2013.

Subsection (2)

The date was in error. The date has been revised to September 1, 2013, as indicated in the revised proposed alternative Request ISI-05.

Subsection (3)

Eight Entergy nuclear operating units will start new 10-year inservice inspection intervals between June 2015 and December 2017. Entergy is proposing to maintain the corporate administered Repair/Replacement (R/R), Pressure Testing (PT), and Nondestructive Examination (NDE) programs at the 2001 Edition through 2003 Addenda through 2017 at which time we will request NRC approval to update these ASME Section XI activities to the latest ASME code edition incorporated by reference in 10 CFR50.55a for the entire fleet. The Entergy fleet includes the following eleven plants.

Plant Name	**Interval**	**Existing Interval Start Date**
Vermont Yankee	Start 5th Interval	September 1, 2013
Pilgrim	Start 5th Interval	June 2015
Palisades	Start 5th Interval	December 2015
Indian Point Unit 2	Start 5th Interval	June 2016
J.A. Fitzpatrick	Start 5th Interval	January 2016
Arkansas Nuclear One Unit 1	Start 5th Interval	June 2017
Waterford Unit 3	Start 4th Interval	July 2017
Grand Gulf	Start 4th Interval	July 2017
River Bend	Start 4th Interval	December 2017
Indian Point Unit 3	Start 5th Interval	July 2019
Arkansas Nuclear One Unit 2	Start 5th Interval	March 2020

Subsection (4)

In accordance with Paragraph 50.55a(g)(4)(ii) ASME Section XI, the most current edition/addenda will be the latest edition and addenda that has been incorporated by 10 CFR 50.55a(b), one year prior to the commencement of the fifth VY ISI interval. This will be the Code of Record for the R/R, PT, and NDE activities.

Subsection (5)

The refueling outages in which the R/R, PT, and NDE activities will be based on the 2001 edition through the 2003 addenda in lieu of the 2007 edition through 2008 addenda includes the following:

Refueling Outage	**Period of Interval**	**Approximate Scheduled Date**
31	1	October 2014
32	1	April 2016
33	2	October 2017

2. When two sets of ASME Code editions are available for use, the NRC is concerned that the less conservative Code requirements may be applied which may reduce the safety

margin of the structures, systems and components at the plant. For example, IWB-3514 of the 2007 edition states that "...The acceptance standards of IWB-3514 do not apply to planar surface flaws in UNS N06600, N06082, or W86182 in BWR or PWR environment or austenitic stainless steels and associated welds in BWR environments, which are subject to stress corrosion cracking..." IWB-3514 of the 2001 edition through the 2003 addenda does not have this limitation.

If a flaw is detected in an austenitic stainless steel ASME Class 1 pipe, under the proposed alternative, the flaw may be able to remain in service using the acceptance standards in the 2001 edition through the 2003 addenda. However, under the 2007 edition through the 2008 addenda, the flaw will need to be analyzed which may result in a shorter inspection interval for the degraded pipe, or the flaw may not be able to remain in service because the acceptance standards of IWB-3514 cannot be used to disposition the flaw. In this case, the 2001 edition through the 2003 addenda requirement is less stringent and less conservative than the 2007 edition through the 2008 addenda requirement.

In light of limitations in the flaw acceptance standards in the 2007 edition through the 2008 addenda, discuss how a flaw in an austenitic stainless steel ASME Class 1 pipe will be dispositioned under the 2001 edition through the 2003 addenda of the ASME Code, Section XI.

Response

This RAI addresses two separate but related issues. First, when two sets of Code editions/ addenda are available to a licensee for use, "the NRC is concerned that the less conservative Code requirements may be applied which may reduce the safety margin of the structures, systems and components at the plant." Second, since the 2007 Edition/2008 Addenda of ASME Section XI specifies restrictions on use of IWB-3514 acceptance standards that are not included in the 2001 Edition/2003 Addenda, the NRC would like to know how Entergy would disposition a flaw in an ASME Class 1 austenitic stainless steel pipe (weld) when using the 2001 Edition/ 2003 Addenda.

Regarding the first issue, NRC approved Editions/Addenda of ASME Section XI are identified in 10CFR50.55a(b)(2). At present, the latest NRC approved Edition/Addenda is the 2007 Edition/ 2008 Addenda. When the ASME adds new or revises existing code rules in Section XI, these changes are generally based on operating experience, industry research, testing, technological developments, and input from the NRC. In turn, the NRC evaluates all changes to ASME Section XI Code rules to ensure that new Editions/Addenda maintain an acceptable level of quality and safety. Where the NRC has concerns about specific ASME Section XI Code rules, the NRC specifies (imposes) conditions on those code rules in 10CFR50.55a. These conditions are mandated by the NRC to ensure that an acceptable level of quality and safety are maintained. Therefore, all applicable NRC conditions in 10CFR50.55a must be met by licensees when using ASME Section XI code rules.

The NRC may also mandate that licensees comply with certain augmented ASME Section XI requirements to ensure that, once again, an acceptable level of quality and safety is maintained at operating nuclear power plants. For example, paragraph (g)(6)(ii) of 10CFR50.55a requires that licensees "follow an augmented inservice inspection program for systems and components for which the Commission deems that added assurance of structural reliability is necessary." These augmented inspection requirements enforce conditions such as implementation of Appendix VIII UT examinations, Code Case N-729-1 reactor vessel head inspections (PWRs), Code Case N-722-1 reactor coolant pressure boundary visual inspections (PWRs), and Code Case N-770-1 examinations of Class 1 piping and nozzle dissimilar metal welds (PWRs).

Based on the above, any specific Edition/Addenda of the ASME Section XI Code that has been approved and conditioned by the NRC in 10CFR50.55a provides an acceptable level of quality and safety. Furthermore, NRC approval of later Editions/Addenda of the ASME Section XI Code in 10CFR50.55a does not make earlier Editions/Addenda of the Code unsafe since the NRC has also approved the earlier Edition/Addenda with clearly defined NRC conditions which govern their use. Entergy believes that this position is consistent with a recent NRC safety evaluation, dated April 29, 2013, for Virginia Electric and Power Company (Dominion) [ML13100A049]. In the safety evaluation, the NRC allowed Surry Units 1 & 2 to adopt the 2004 Edition of ASME Section XI, instead of the 2007 Edition/2008 Addenda as required by 10CFR50.55a (g)(4)(ii), for performing ISI related activities including repair/replacements, pressure testing, and NDE. The NRC stated the following in Section 3.2 of the safety evaluation:

> "There were numerous changes incorporated into the 2004 Edition of the ASME Code, Section XI. The NRC staff evaluated these changes when 10CFR50.55a(b)(2) regulations were changed to incorporate by reference the 2007 Edition through the 2008 Addenda of Section XI. The staff did not find it necessary to mandate that plants following earlier editions and addenda of ASME Code, Section XI implement any of the changes incorporated into the 2007 Edition through the 2008 Addenda of Section XI. However, the staff did mandate certain augmented inservice inspection requirements found in 10CFR50.55a (g)(6)(ii) which include containment inservice inspection in accordance with Subsections IWE and IWL, reactor vessel head inspections, reactor coolant pressure boundary visual inspections and examination requirements for class 1 piping and nozzle dissimilar-metal butt welds which Surry, Units 1 and 2 must follow. The licensee is required to implement the requirements of 10CFR50.55a(g)(6)(ii) at Surry, Units 1 and 2. The staff also notes that 10CFR50.55a(b)(2)(xv) requires licensees utilizing editions and addenda after the 2001 Edition through the 2006 Addenda to use the 2001 Edition of Appendix VIII. With these mandatory augmented examinations, the staff finds that an ISI program following the requirements of the 2004 Edition of ASME Code, Section XI subject to the conditions of 10CFR50.55a(b) and the requirements of 50.55a(g)(6)(ii) will provide an acceptable alternative to the 2007 Edition through the 2008 Addenda."

Regarding the second (IWB-3514) issue, Entergy does not intend to apply the IWB-3514 acceptance standards of the 2001 Edition/2003 Addenda to planar surface flaws in UNS N06600, N06682, or W86182 materials or austenitic stainless steels which are subject to stress corrosion cracking. Therefore, if a flaw is found in an ASME Class 1 austenitic stainless steel weld, Entergy would either evaluate the acceptability of the flaw in accordance with IWB-3600 or correct the flawed condition by performing an approved ASME Section XI repair/replacement activity. It should also be noted that this position is consistent with Entergy's existing commitments in the Vermont Yankee Nuclear Power Station (VY) Intergranular Stress Corrosion Cracking (IGSCC) Program for implementing Generic Letter 88-01. Entergy has revised Request ISI-05 to clarify this position. See new note 6 to the table in Attachment 1 to Request ISI-05.

In conclusion, Entergy submitted Request ISI-05 to obtain NRC authorization to allow VY to continue use of the 2001 Edition/2003 Addenda of ASME Section XI for the performance of repair/replacement activities, pressure testing, and NDE. In this request, Entergy noted that it intends to comply with all NRC conditions as specified in 10CFR50.55a. This commitment is documented in several locations in Request ISI-05. Since the 2001 Edition/2003 Addenda has been approved by the NRC in 10CFR50.55a, Entergy believes that continued use of this Edition/Addenda (until December 31, 2017) for the performance of ASME Section XI repair/replacement activities, pressure testing, and NDE provides an acceptable level of quality and safety as required by 10CFR50.55a(a)(3)(ii). Entergy will also revise Request ISI-05 to clarify its intent to not apply IWB-3514 acceptance standards to planar surface flaws identified in UNS N06600, N06682, or W86182 materials or austenitic stainless steels which are subject to stress corrosion cracking.

3. Discuss how the dual ASME Code edition and addenda for the ISI program is tracked and monitored in terms of the plant documents such as Technical Specifications, Updated Final Safety Analysis, administrative controls, and plant procedures.

Response

VY presently selects, plans, and schedules the performance of ISI examinations and tests in accordance with the 1998 Edition/2000 Addenda of ASME Section XI. While this is the case, ASME Section XI repair/replacement, pressure testing, and NDE activities are performed in accordance with the 2001 Edition/2003 Addenda. This dual use of Code Editions/Addenda was approved by the NRC in a safety evaluation dated April 30, 2009 (ML091170111). That said, the dual Code Editions/Addenda proposed in Request ISI-05 are identical to those previously approved by the NRC in April 2009 and presently implemented at VY with one exception. The selection, planning, and scheduling of ISI examinations/tests will be performed in accordance with the 2007 Edition/2008 Addenda instead of the 1998 Edition/2000 Addenda of ASME Section XI. Therefore, a process for tracking and monitoring the implementation of dual Code Editions/Addenda of ASME Section XI already exists at VY.

It should also be noted that management of dual Code Editions/Addenda is commonly performed by all licensees including Entergy. This is necessary because the NRC mandates in 10CFR50.55a that licensees comply with certain unique Editions/Addenda of the Code for specific ASME Section XI activities regardless of the ASME Section XI Code of Record. Examples include the following:

- [(b)(2)(xv)] - Licensees using Editions/Addenda of ASME Section XI after 2001 Edition through 2006 Addenda shall use the 2001 Edition of Appendix VIII for performance demonstration of ultrasonic examination systems.

- [(b)(2)(xx)(B)] - NDE provision in IWA-4540(a)(2) of the 2002 Addenda must be applied when performing system leakage tests after repair/replacement activities by welding or brazing when using the 2003 Addenda or later.

- [(b)(2)(xxvi)] - Provisions in IWA-4540(c) of the 1998 Edition for pressure testing Class 1, 2, and 3 mechanical joints must be applied when using the 2001 Edition or later.

Based on the above, Entergy has process controls in place to track and monitor the implementation of the dual Code Editions/Addenda of ASME Section XI. These process controls, summarized below, need only be updated as they apply to the selection, planning, and scheduling of ISI examinations and tests.

- **Technical Specifications and Updated Final Safety Analysis Report**: These documents do not generally refer to specific Editions/Addenda of ASME Section XI. They simply refer to the ASME Section XI Code, without reference to specific Editions/Addenda, for the performance of various ISI examinations/tests, repair/replacement activities, pressure testing, and NDE. However, should reference to a specific Edition/Addenda of ASME Section XI be necessary, Entergy will ensure that the appropriate Edition/Addenda is specified.

  As an example, the existing Technical Specifications contains the following language regarding ASME Codes: "Inservice inspection of safety-related components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the NRC. Inservice inspection of piping, identified in NRC Generic Letter 88-01, shall be performed in accordance with the staff positions on schedule, methods, and personnel and sample expansion included in the Generic Letter or in accordance with alternate measures approved by NRC Staff."

  In addition, the existing Updated Final Safety Analysis Report contains the following statement: "Inservice inspection of the reactor coolant system pressure boundary is in accordance with ASME Section XI, Division 1 as described in Technical Specification 4.6.E. and as defined in approved Request for Alternatives or Requests for Reliefs in accordance with 10 CFR 50.55a." "The Inservice Inspection and Risk-Informed programs are implemented in accordance with Reference 3." Reference 3 is the Vermont Yankee Inservice Inspection Program.

- **VY Inservice Inspection Plan**: This document implements the ASME Section XI inservice inspection program at VY. It ensures that the selection, planning, and scheduling of ISI examinations and tests are performed in accordance with 2007 Edition/2008 Addenda of ASME Section XI as delineated in Attachment 1 of Request ISI-05.

- **Administrative and Program Procedures**: These procedures establish requirements for implementing the ASME Section XI repair/replacement, pressure testing, and NDE programs. These procedures also ensure that program requirements comply with applicable requirements in the 2001 Edition (Appendix VIII ultrasonic examination qualifications) and the 2001 Edition/2003 Addenda of ASME Section XI as described in Attachment 1 of Request ISI-05 for the performance of repair/replacement, pressure testing, and NDE activities.

In conclusion, Entergy believes that its existing processes will ensure that the use of dual Code Editions/Addenda at VY are appropriately managed, tracked, and controlled.

4. Discuss which edition and addenda of the ASME Code, Section XI, will the non-mandatory appendices be used from September 1, 2013 to December 31, 2017 and provide justification.

Response

The non-mandatory appendices provide information or guidance for the use of ASME Code Section XI. The use of the non-mandatory appendices will be based on the applicable articles of the edition and addenda of the Code (Code of Record) indicated in the table titled "Proposed ASME Section XI Code of Record for VY" of Relief Request ISI-05. For example, if one wanted to obtain guidance for preparing a surface for nondestructive examination, IWA-2200 refers one

to non-mandatory Appendix D for that guidance. Review of the "Proposed ASME Section XI Code of Record for VY" directs one to use IWA-2200 from the 2001 Edition through 2003 Addenda for requirements applicable to, in this case, examination methods. Therefore, Appendix D from the 2001 Edition through 2003 Addenda would be used as opposed to Appendix D from the 2007 Edition through 2008 Addenda.

Enclosure 1

Vermont Yankee Nuclear Power Station

Revised Relief Request ISI-05

Vermont Yankee Nuclear Power Station
10 CFR 50.55a Request No. ISI-05
Revised Proposed Alternative in Accordance With 10 CFR 50.55a(a)(3)(i)
Maintaining ISI Related Activities on the 2001E/2003A ASME Section XI Code

1. ASME Code Component(s) Affected

Code Class:	ASME Code Class 1, 2, 3, and MC components and component supports
Component Numbers:	Various
Code References:	ASME Section XI, 2007 Edition with 2008 Addenda ASME Section XI, 2001 Edition with 2003 Addenda
Examination Category:	Various
Item Number(s):	Various
Unit/Inspection Interval	Vermont Yankee / Fifth 10-year interval September 1, 2013 – August 31, 2023

2. Applicable ASME Code Requirements

Entergy is required to update the Vermont Yankee Nuclear Power Station (VY) 120-month Inservice Inspection (ISI) Program to the latest Edition and Addenda of the ASME B&PV Code, Section XI, as approved by the NRC in 10 CFR 50.55a(b)(2), for the fifth interval.

Pursuant to 10 CFR 50.55a(b)(2), references to Section XI refer to Section XI, Division 1, of the ASME Boiler and Pressure Vessel Code, and include the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition through the 2007 Edition with the 2008 Addenda, subject to the following conditions.

Pursuant to 10 CFR 50.55a(g)(4), "Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and preservice examination requirements, set forth in Section XI of editions and addenda of the ASME B&PV Code (or ASME OM Code for snubber examination and testing) that become effective subsequent to editions specified in paragraphs (g)(2) and (g)(3) of this section and that are incorporated by reference in paragraph (b) of this section, to the extent practical within the limitations of design, geometry and materials of construction of the components."

According to the 10 CFR 50.55a(g)(4)(ii), "Inservice examination of components and system pressure tests conducted during successive 120-month inspection intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph (b) of this section 12 months before the start of the 120-month inspection interval (or the optional ASME Code cases listed in NRC Regulatory Guide 1.147, Revision 16, when using Section XI; or Regulatory Guide 1.192 when using the OM Code, that are incorporated by reference in paragraph (b) of this section), subject to the conditions listed in paragraph (b) of this section. However, a licensee whose inservice inspection interval commences during the 12 through 18-month period after July 21, 2011 may delay the update of their Appendix VIII program by up to 18 months after July 21, 2011."

Vermont Yankee Nuclear Power Station
10 CFR 50.55a Request No. ISI-05
Revised Proposed Alternative in Accordance With 10 CFR 50.55a(a)(3)(i)
Maintaining ISI Related Activities on the 2001E/2003A ASME Section XI Code

3. Reason for Request

Entergy proposes an alternative to the requirements of 10 CFR 50.55a(b)(2), 10 CFR 50.55a(g)(4), and 10 CFR 50.55a(g)(4)(ii); specifically, to update the VY ISI program to the 2007 Edition with the 2008 Addenda while maintaining and performing ISI related activities such as repair/replacements (R&R), pressure testing (PT), and non-destructive examination (NDE) to the current ASME Section XI 2001 Edition through the 2003 Addenda requirements.

4. Proposed Alternative and Basis for Use

Proposed Alternative

Pursuant to 10 CFR 50.55a(a)(3)(i), Entergy requests authorization to maintain the current use of 2001 Edition through the 2003 Addenda for the performance of R&R, PT, and NDE subject to the conditions contained in 10 CFR 55.55a. In implementing this proposal, Entergy will continue to comply with all NRC conditions, limitations, and restrictions as specified in 10 CFR 50.55a for 2001 Edition with 2003 Addenda of ASME Section XI Code. Code Cases will also be adopted per RG 1.147 for those cases applicable to the 2001 Edition through the 2003 Addenda. However, this request does not apply to the ISI examinations and tests at VY.

In accordance with 10 CFR 50.55a(g)(4)(ii), the Code of Record for the ISI Program will be the 2007 Edition with 2008 Addenda with the selection, planning, and scheduling of ISI examinations and tests as defined in IWB-, IWC-, IWD-, IWE-, and IWF-2500 or NRC approved ISI alternatives being performed accordingly.

Entergy has proposed specific details in Attachment 1 regarding the use of or reference to "Articles" (e.g. IWA-4000, IWA-5000) from every "Subsection" (e.g. IWA, IWB, etc) of the 2001 Edition with 2003 Addenda for the performance of R&R, PT, and NDE activities and the 2007 Edition through 2008 Addenda for the ISI Program selection, planning, and scheduling of ISI examinations and tests.

Basis for Use

On September 1, 2013, the VY ISI Program will be updated to the fifth ten year interval in accordance with 10 CFR 50.55a(g)(4)(ii). While the ISI related activities such as R&R, PT, and NDE would normally be included as part of the update to the 2007 Edition and 2008 Addenda of ASME Section XI, the proposed alternative is to maintain the ISI related activities in compliance with ASME Section XI 2001 Edition through the 2003 Addenda, while conforming to all conditions of 10 CFR 50.55a.

Entergy has standardized the performance of ISI related activities such as R&R, PT, and NDE across its entire nuclear fleet to the ASME Section XI 2001 Edition through the 2003 Addenda. While ISI Program plans are controlled on a site-by-site basis, the R&R, PT, and NDE programs are administered under a corporate set of procedures. With Entergy being required to update the VY ISI, R&R,PT, and NDE program activities to the 2007 Edition with the 2008 Addenda in accordance with 10 CFR 50.55a(b), this will require establishing and

maintaining two different programs; one for VY and one for the other ten (10) Entergy nuclear stations.

Although the 2007 Edition made changes to Section XI, these changes were not necessary to ensure an acceptable level of quality and safety. Nor were these changes made to address a deficiency in the Code that adversely impacted safety. In the latest revision to 10 CFR 50.55a, the NRC did not mandate that other plants that have adopted earlier edition and addenda follow any of the new paragraphs in the 2007 Edition.

Entergy believes that maintaining the VY ISI related activities to the 2001 Edition through the 2003 Addenda standard with the other Entergy plants will improve the level of quality and safety at VY. This allows leveraging the knowledge from the ten other nuclear stations of ISI related activities to provide VY with a wealth of experience to draw on as well as minimizing the time spent on developing and maintaining procedures that are different from the rest of the Entergy fleet. Therefore, this proposed alternative provides an acceptable level of quality and safety, commensurate with the provisions of 10 CFR 50.55a(a)(3)(i).

5. Duration of Proposed Alternative

The fifth interval of ISI at VY begins on September 1, 2013 and ends on August 31, 2023. However, with eight nuclear operating stations starting new 10-year inservice inspection intervals between June 2015 and December 2017, Entergy proposes to maintain standardization of the corporate administered R/R, PT, and NDE programs across its entire nuclear fleet at the 2001 Edition through 2003 Addenda through December 2017. Prior to December 31, 2017, Entergy will request NRC approval to update these ASME Section XI activities to the latest ASME code edition incorporated by reference in 10 CFR50.55a for the entire fleet. Therefore, the proposed duration of this alternative is from September 1, 2013 through December 31, 2017.

6. Precedents

This request is similar in nature to the following requests for alternatives, in that, Entergy nuclear stations were granted use of 2001 Edition through 2003 Addenda for ISI related activities such as R&R, PT, and NDE with the Code of Record for the ISI Program being a different Code edition.

- "Relief Request ISI-2008-1, Use of Later Edition and Addenda of ASME Code, Section XI for Repair and Replacement, Pressure Testing, and Non-Destructive Testing Activities -Vermont Yankee Nuclear Power Station (TAC NO. ME0239)," dated April 30, 2009 [ADAMS Accession No. ML091170111]
- "Relief Request ISI-2008-1, Use of Later edition and addenda of asme code, section xi for repair and replacement, pressure testing, and destructive testing activities -Pilgrim Nuclear Power Station (TAC NO. ME0238), dated April 30, 2009 [ADAMS Accession No. ML091130456]
- Arkansas Nuclear One, Unit 2 - ISI-2007-1, Request to Use a Later Edition and Addenda of American Society of Mechanical Engineers Boiler and Pressure Vessel Code (TAC NO. MD6603, dated December 20, 2007 [ADAMS Accession No. ML073390442]

REQUEST ISI-05

ATTACHMENT 1

PROPOSED ASME SECTION XI CODE OF RECORD
FOR VERMONT YANKEE INSERVICE INSPECTION 5TH 10-YEAR INTERVAL

PROPOSED ASME SECTION XI CODE OF RECORD FOR VY

ASME Section XI Code Provision		ASME Section XI Code Edition/Addenda[1]		
Sub-section	Article	2001 Edition/ No Addenda	2001 Edition/ 2003 Addenda	2007 Edition/ 2008 Addenda
IWA-General Requirements	IWA-1000		X	
	IWA-2000		X[2]	X[2]
	IWA-3000		X	
	IWA-4000		X[3]	
	IWA-5000		X	
	IWA-6000		X	
	IWA-9000		X	
IWB-Req'ts for Class 1 Components	IWB-1000			X[4]
	IWB-2000			X[4]
	IWB-3000		X[6]	
	IWB-5000		X	
IWC-Req'ts for Class 2 Components	IWC-1000			X[4]
	IWC-2000			X[4]
	IWC-3000		X	
	IWC-5000		X	
IWD-Req'ts for Class 3 Components	IWD-1000			X[4]
	IWD-2000			X[4]
	IWD-3000		X	
	IWD-5000		X	
IWE-Req'ts for Class MC Components	IWE-1000			X[4]
	IWE-2000			X[4]
	IWE-3000		X	
	IWE-5000		X	
IWF-Req'ts for Class 1, 2, 3, and MC Supports	IWF-1000			X[4]
	IWF-2000			X[4]
	IWF-3000		X	
	IWF-5000		X	
IWL-Req'ts for Class CC Components	IWL-1000			X[5]
	IWL-2000			X[5]
	IWL-3000			X[5]
	IWL-5000			X[5]
Mandatory Appendices	I		X	
	II		X	
	III		X	
	IV		X	
	V		x	
	VI		X	
	VII		X	
	VIII	X		
	IX		X	
	X			X[4]

Notes:

(1) Entergy will also comply with all NRC conditions, limitations, and restrictions specified in 10 CFR 50.55a.

(2) VY is proposing to use IWA-2100, 2200, and 2300 from the 2001 Edition/2003 Addenda for requirements applicable to authorized inspection, examination methods, and qualification of NDE personnel. However, VY will use the 2007 Edition/2008 Addenda of the 2007 Edition/2008 Addenda when using IWA-2400, 2500, 2600 for the selection, planning, and scheduling of ISI examinations and tests.

(3) As exceptions to IWA-4000 of the 2001 Edition/2003 Addenda, VY will comply with the alternatives listed below to comply with NRC restrictions in 10 CFR.55a:

- The NDE provision in IWA-4540(a)(2) of the 2001 Edition/2002 Addenda will be applied when performing system leakage tests after repair/replacement activities involving welding or brazing to comply with 10 CFR 50.55a(b)(2)(xx)(B).
- Pressure testing of mechanical joints of Class 1, 2, and 3 items will be performed in accordance with IWA-4540(c) of the 1998 Edition/No Addenda to comply with 10 CFR 50.55a(b)(2)(xxvi).

(4) The selection, planning, and scheduling of ISI examinations/tests will comply with these ASME Section XI articles (e.g. IWB-1000 and 2000) from the 2007 Edition/2008 Addenda or applicable NRC approved alternatives that are specified in the VY ISI Program Plans.

(5) VY does not have a Class CC Containment. Therefore, the requirements of Subsection "IWL" do not apply for this site.

(6) Entergy will not apply the IWB-3514 acceptance standards of the 2001 Edition/2003 Addenda to planar surface flaws in UNS N06600, N06682, or W86182 materials or austenitic stainless steels which are subject to stress corrosion cracking. Therefore, if a flaw is found in an ASME Class 1 austenitic stainless steel weld, Entergy would either evaluate the acceptability of the flaw in accordance with IWB-3600 or correct the flawed condition by performing an approved ASME Section XI repair/replacement activity.