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Timothy Schenk  
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RBG-47825

February 13, 2018

Attn: Document Control Desk  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852-2738

SUBJECT: Request for Alternative in Accordance with 10 CFR 50.55a (a)(3)(i) Proposed  
Alternative to 10 CFR 50.55a Examination Requirements for Reactor Pressure  
Vessel Weld Inspections (RR- RBS-ISI-015)  
River Bend Station, Unit 1  
Docket No. 50-458  
License No. NPF-47

Dear Sir or Madam:

In accordance with 10 CFR 50.55a, "Codes and Standards," paragraph (a)(3)(i), Entergy requests NRC approval of the proposed alternative to American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Sub Article IWB-2500 to allow reduced requirements for nozzle-to-vessel weld and inner radius examinations. This alternative is requested for the fourth 10-year interval of the River Bend Station (RBS) Inservice Inspection Program.

The details of the 10 CFR 50.55a proposed alternative are enclosed as Attachment 1, and the specific components affected by this request are tabulated in Attachment 2. Attachment 3 is the River Bend Station response to BWRVIP-108 Plant Specific Applicability Criteria. The NRC provided a Safety Evaluation (Attachment 3, Reference 1) approving the generic technical basis and acceptability criteria for application of ASME Code Case N-702, "Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1," on December 19, 2007, which Entergy has followed as detailed in the attached request. The plant specific applicability of the BWRVIP-108 report to RBS is demonstrated in Attachment 3.

Entergy requests approval of this request by November 30, 2018, in order to support refueling outage twenty (RF-20) scheduled for January 2019.

There are no regulatory commitments contained in this submittal. If you require additional information, please contact Mr. Tim Schenk at (225)-381-4177 or [tschenk@entergy.com](mailto:tschenk@entergy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Schenk", written over a horizontal line.

TAS/alc

Attachments:

1. Request for Alternative Use Of Code Case N-702 In Lieu Of Specific ASME Code Section XI Requirements RBS-ISI-015
2. Specific Components Affected
3. Response to BWRVIP-108 Plant Specific Applicability Criteria

cc: (with Enclosure)

U. S. Nuclear Regulatory Commission  
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RBFI-18-0013  
LAR-2018-02

**ATTACHMENT 1  
RBG-47825**

**REQUEST FOR ALTERNATIVE**

**USE OF CODE CASE N-702 IN LIEU OF SPECIFIC  
ASME CODE SECTION XI REQUIREMENTS**

**RBS-ISI-015**

**RIVER BEND STATION - UNIT 1  
FOURTH 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM  
REQUEST FOR ALTERNATIVE RBS-ISI-015  
10 CFR 50.55a(z)(1)  
--Acceptable Level of Quality and Safety--**

**ASME Code Component(s) Affected**

Code Class:	ASME Section XI Code Class 1
Component Numbers:	Various (see Table 1 for detailed list of components)
Code References:	ASME Section XI, 2007 Edition with the 2008 Addenda and Code Case N-702
Examination Category:	B-D
Item Number(s):	B3.90 and B3.100
Unit / Inspection Interval Applicability:	River Bend Station (RBS), Fourth (4 <sup>th</sup> ) 10-Year Inservice Inspection (ISI) Interval

**I. Applicable ASME Code Requirement(s)**

ASME Section XI, 2007 Edition with the 2008 Addenda (Reference 1), Table IWB-2500-1, Examination Category B-D, "Full Penetration Welded Nozzles in Vessels" requires a volumetric examination of all nozzles with full penetration welds to the vessel shell (or head) and integrally cast nozzles each 10-year interval. Additionally, for ultrasonic examinations, ASME Section XI, Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," is implemented.

The RPV nozzle-to-vessel shell welds and nozzle inside radius sections or (nozzle radii) subject to this request are listed below in Table 1:

<b>TABLE 1</b> <b>RPV Nozzle-to-Vessel Shell Welds and Inside Radius Sections</b>			
Group	Description	Total Number	Minimum examined
B13-D001-N01	Recirculation Outlet	2	1
B13-D001-N02	Recirculation Inlet	10	3
B13-D001-N03	Main Steam	4	1
B13-D001-N05	Core Spray	2	1
B13-D001-N06	Low Pressure Core Injection	3	1
B13-D001-N07	Top Head Spray	1	1
B13-D001-N08*	Top Head Spare	1	1
B13-D001-N09	Jet Pump Instrumentation	2	1
B13-D001-N16*	Vibration Instrumentation	1	1

**\*Not used Blind Flanged**

The minimum numbers of examinations listed above were completed during the Third 10-Year ISI Interval and all indications identified were found to be acceptable per ASME Section XI. No through wall flaws were detected and no changes in indications previously identified have been noted.

## **II. Reason for Request**

NRC Regulatory Guide 1.147, Revision 17 (Reference 2) conditionally accepts the use of Code Case N-702 (Reference 3). This code case provides an alternative to performing examination of 100% of the Nozzle-to-Vessel Shell Welds and Nozzle Radii for Examination Category B-D nozzles with the exception of the Feedwater and Control Rod Drive Return Line (CRDRL) Nozzles. The alternative is to perform examination of a minimum of 25% of the nozzle inner radius sections and nozzle-to-shell welds, including at least one nozzle from each system and nominal pipe size, excluding the Feedwater and CRDRL Nozzles.

## **III. Proposed Alternative and Basis for Use**

### **Proposed Alternative**

Pursuant to 10 CFR 50.55a(z)(1), RBS requests approval to implement the alternative of Code Case N-702 in lieu of the code required 100% examination of all nozzles identified in Table 1. As an alternative, for the nozzle-to-vessel shell welds and inner radii identified in Table 1, RBS proposes to examine a minimum of 25% of the nozzle-to-vessel shell welds and inner radii, including at least one nozzle from each system and nominal pipe size, in accordance with Code Case N-702 and as permitted by Code Case N-702, a VT-1 visual examination of Item Nos. B3.20<sup>1</sup> and B3.100 may be performed in lieu of a volumetric examination.

<sup>1</sup>Note that Item No. B3.20 was removed from Section XI in the 2007 Edition.

#### Basis for Use

Boiling Water Reactor (BWR) Vessel Internals Project (BWRVIP) has issued two topical reports:

- BWRVIP-108 "Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," EPRI Technical Report 1003557, October 2002 (ML023330203) (Reference 5) and
- BWRVIP-241 "Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," EPRI Technical Report 1021005, October 2010 (ML11119A041) (Reference 6).

**ATTACHMENT 2**  
**RBG-47825**

**SPECIFIC COMPONENTS AFFECTED**

**RIVER BEND STATION – UNIT 1  
FOURTH 10 YEAR INTERVAL INSERVICE INSPECTION PROGRAM  
REQUEST FOR ALTERNATIVE RBS-ISI-015**

**TABLE OF AFFECTED COMPONENTS**

<b>COMPONENT NO</b>	<b>CATEGORY</b>	<b>ITEM NUMBER</b>	<b>DESCRIPTION</b>
B13-D001-N01A-0	B-D	B3.100	20.00" Reactor Recirculation Outlet Nozzle Inside Radius Section
B13-D001-N01A-1	B-D	B3.90	20.00" Reactor Recirculation Outlet Nozzle-to-Vessel weld
B13-D001-N01B-0	B-D	B3.100	20.00" Reactor Recirculation Outlet Nozzle Inside Radius Section
B13-D001-N01B-1	B-D	B3.90	20.00" Reactor Recirculation Outlet Nozzle-to-Vessel weld
B13-D001-N02A-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02A-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02B-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02B-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02C-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02C-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02D-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02D-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02E-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02E-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02F-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02F-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02G-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02G-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02H-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02H-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld



**RIVER BEND STATION – UNIT 1  
FOURTH 10 YEAR INTERVAL INSERVICE INSPECTION PROGRAM  
REQUEST FOR ALTERNATIVE RBS-ISI-015**

**TABLE OF AFFECTED COMPONENTS**

B13-D001-N02J-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02J-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N02K-0	B-D	B3.100	10.00" Reactor Recirculation Inlet Nozzle Inside Radius Section
B13-D001-N02K-1	B-D	B3.90	10.00" Reactor Recirculation Inlet Nozzle-to-Vessel weld
B13-D001-N03A-0	B-D	B3.100	24.00" Main Steam Nozzle Inside Radius Section
B13-D001-N03A-1	B-D	B3.90	24.00" Main Steam Nozzle-to-Vessel weld
B13-D001-N03B-0	B-D	B3.100	24.00" Main Steam Nozzle Inside Radius Section
B13-D001-N03B-1	B-D	B3.90	24.00" Main Steam Nozzle-to-Vessel weld
B13-D001-N03C-0	B-D	B3.100	24.00" Main Steam Nozzle Inside Radius Section
B13-D001-N03C-1	B-D	B3.90	24.00" Main Steam Nozzle-to-Vessel weld
B13-D001-N03D-0	B-D	B3.100	24.00" Main Steam Nozzle Inside Radius Section
B13-D001-N03D-1	B-D	B3.90	24.00" Main Steam Nozzle-to-Vessel weld
B13-D001-N05A-0	B-D	B3.100	12.00" Core Spray Nozzle Inside Radius Section
B13-D001-N05A-1	B-D	B3.90	12.00" Core Spray Nozzle-to-Vessel weld
B13-D001-N05B-0	B-D	B3.100	12.00" Core Spray Nozzle Inside Radius Section
B13-D001-N05B-1	B-D	B3.90	12.00" Core Spray Nozzle-to-Vessel weld
B13-D001-N06A-0	B-D	B3.100	10.00" Low Pressure Core Injection Nozzle Inside Radius Section
B13-D001-N06A-1	B-D	B3.90	10.00" Low Pressure Core Injection Nozzle-to-Vessel weld
B13-D001-N06B-0	B-D	B3.100	10.00" Low Pressure Core Injection Nozzle Inside Radius Section
B13-D001-N06B-1	B-D	B3.90	10.00" Low Pressure Core Injection Nozzle-to-Vessel weld
B13-D001-N06C-0	B-D	B3.100	10.00" Low Pressure Core Injection Nozzle Inside Radius Section
B13-D001-N06C-1	B-D	B3.90	10.00" Low Pressure Core Injection Nozzle-to-Vessel weld

**RIVER BEND STATION – UNIT 1  
FOURTH 10 YEAR INTERVAL INSERVICE INSPECTION PROGRAM  
REQUEST FOR ALTERNATIVE RBS-ISI-015**

**TABLE OF AFFECTED COMPONENTS**

B13-D001-N07-0	B-D	B3.100	6.00" Top Head Spray Nozzle Inside Radius Section
B13-D001-N07-1	B-D	B3.90	6.00" Top Head Spray Nozzle-to-Vessel weld
B13-D001-N08-0	B-D	B3.100	6.00" Top Head Spare Nozzle Inside Radius Section
B13-D001-N08-1	B-D	B3.90	6.00" Top Head Spare Nozzle-to-Vessel weld
B13-D001-N09A-0	B-D	B3.100	4.00" Jet Pump Instrumentation Nozzle Inside Radius Section
B13-D001-N09A-1	B-D	B3.90	4.00" Jet Pump Instrumentation Nozzle-to-Vessel weld
B13-D001-N09B-0	B-D	B3.100	4.00" Jet Pump Instrumentation Nozzle Inside Radius Section
B13-D001-N09B-1	B-D	B3.90	4.00" Jet Pump Instrumentation Nozzle-to-Vessel weld
B13-D001-N16-0	B-D	B3.100	8.00" Vibration Instrumentation Nozzle Inside Radius Section
B13-D001-N16-1	B-D	B3.90	8.00" Vibration Instrumentation Nozzle-to-Vessel weld

**ATTACHMENT 3  
RBG-47825**

**RESPONSE TO BWRVIP-108  
PLANT SPECIFIC APPLICABILITY CRITERIA**

## **RESPONSE TO BWRVIP-108 PLANT SPECIFIC APPLICABILITY CRITERIA**

Regulatory Guide 1.147, Revision 17 conditionally accepts the use of Code Case N-702 with the following condition "The applicability of Code Case N-702 must be shown by demonstrating that the criteria in Section 5.0 of NRC Safety Evaluation regarding BWRVIP-108 dated December 18, 2007 (ML073600374) (Reference 7) "OR" Section 5.0 of NRC Safety Evaluation regarding BWRVIP-241 dated April 19, 2013 (ML13071A240) (Reference 8) are met.

For RBS the criteria of the BWRVIP-108NP report contains the technical basis supporting American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Case N-702 "Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds" for reducing the inspection of RPV nozzle-to-vessel shell welds and nozzle inner radii areas from 100 percent to 25 percent of the nozzles for each nozzle type during each 10-year interval at RBS. The evaluation found that failure probability due to a Low Temperature Overpressure event at the nozzle blend radius region and nozzle-to-vessel shell weld is very low (i.e.  $< 1 \times 10^{-6}$  for 40 years) with or without inservice inspection. The report concludes that inspection of 25% of each nozzle type is technically justified.

Additionally, BWRVIP-241 provides supplemental analyses for BWR reactor pressure vessel (RPV) recirculation inlet and outlet nozzle-to-shell welds and nozzle inner radii that RBS also meets. BWRVIP-241 was submitted to address the limitations and conditions specified in the December 19, 2007, Safety Evaluation for the BWRVIP-108NP report, "BWR Vessel and Internals Project, Technical Basis for the Reduction of Inspection Requirements for the Nozzle-to-Vessel Shell Welds and Nozzle Inner Radii, but was not needed for RBS.

Based on the evaluation in BWRVIP-108NP, the failure probabilities due to a low temperature over pressure (LTOP) event at the nozzle blend radius region and the nozzle-to-vessel shell welds for RBS recirculation outlet and inlet nozzles are very low and meet the NRC safety goal.

Section 5.0 of the NRC Safety Evaluation (SE) for BWRVIP-108NP states:

Each licensee should demonstrate the plant-specific applicability of the BWRVIP-108 report to their units in the request for alternative by meeting the criteria discussed in Section 5 of the Safety Evaluation. RBS applicability was evaluated and demonstrated under RBS Calculation G13.18.10.1-019 Rev. 000 to support the Third Interval Request RBS-ISI-015 that was authorized in accordance with 10 CFR 50.55a(3)(i) and is still valid for this request. The plant specific parameters and assumptions used for the calculations and Criterion Evaluation in Table 2 are as follows:

### Plant Specific Parameters

The following parameters were utilized to demonstrate satisfaction of the plant-specific criterion for RBS:

- RPV normal operating pressure,  $p = 1070 \text{ psia} - 14.7 = 1055.3 \text{ psig}$
- RPV inner radius,  $r = 109.9375 \text{ in.}$
- The RBS maximum heatup and cooldown rate is  $100^\circ\text{F}/\text{Hour}$
- Average longitudinal RPV wall thickness at N2,  $\text{AvgLong} = 6.2292 \text{ in}$
- Average transverse RPV wall thickness at N2,  $\text{AvgTrans} = 6.2917 \text{ in}$
- RPV wall thickness at Nozzle N2,  $t_2 = 6.2605 \text{ in } ((\text{AvgLong} + \text{AvgTrans})/2)$
- RPV constant for inlet nozzle,  $\text{CRPV2} = 19332 \text{ psi}$
- Nozzle outer radius for inlet nozzles,  $r_o = 11.6875 \text{ in}$
- Nozzle inner radius for inlet nozzles,  $r_i = 5.8125 \text{ in}$
- Nozzle constant for inlet nozzle,  $\text{Cnozzle3} = 1637 \text{ psi}$
- Average longitudinal RPV wall thickness at N1,  $\text{AvgLong} = 6.2292 \text{ in}$
- Average transverse RPV wall thickness at N1,  $\text{AvgTrans} = 6.3229 \text{ in}$
- RPV wall thickness at Nozzle N1,  $t_4 = 6.2761 \text{ in } ((\text{AvgLong} + \text{AvgTrans})/2)$
- RPV Constant for outlet nozzle,  $\text{CRPV 4} = 16171 \text{ psi}$
- Nozzle outer radius for outlet nozzles,  $r_o = 16.3125 \text{ in}$
- Nozzle inner radius for outlet nozzles,  $r_i 9.016 \text{ in}$
- Nozzle constant for outlet nozzle,  $\text{Cnozzle5} = 1977 \text{ psi}$

### Assumptions

The following assumptions were made in developing the calculations that were utilized to demonstrate satisfaction of the plant-specific criterion for RBS.

- The vessel inner radius is taken to be the maximum as-built dimension at location R3 because a larger inner radius is more conservative for this determination. Location R3 was chosen because it is closer to the N1 and N2 nozzles.
- An average of the longitudinal and the transverse section is used for the RPV wall thickness at nozzle N1 and N2. Since these values are not as-built dimensions, the average of the nominal value, minimum tolerance, and maximum tolerance is used.
- The maximum tolerance for the inner radius and the minimum tolerance for the outer radius were used for the N1 and N2 nozzle radii because these values yield a larger number for Criteria 3 and 5 which is more conservative.

<b>TABLE 2</b> <b>Evaluation of RBS against Criterion 1, 2, 3, 4, and 5 contained in NRC SER for BWRVIP-108NP</b>			
<b>Criterion 1</b>  Rate constant = 115°F/Hour Rate actual = 100°F/Hour  100°F/Hour < 115°F/Hour  <b>Criterion 1 is Met</b>			
Recirculation Inlet Nozzles (N2)		Recirculation Outlet Nozzles (N1)	
Criterion 2:  $(pr/t)/CRPV < 1.15$		Criterion 4:  $(pr/t)/CRPV < 1.15$	
p = RPV normal operating pressure	1055.3 psi	p = RPV normal operating pressure	1055.3 psi
r = RPV inner radius	109.9375 in	r = RPV inner radius	109.9375 in
t = RPV wall thickness	6.2605 in	t = RPV wall thickness	6.276 in
CRPV	19332 psi	CRPV	16171 psi
$0.959 < 1.15$  <b>Criterion 2 is Met</b>		$1.143 < 1.15$  <b>Criterion 4 is Met</b>	
<b>Criterion 3:</b>  $[p(ro2 + ri2) / (ro2 - ri2)]/CNOZZLE < 1.15$		<b>Criterion 5:</b>  $[p(ro2 + ri2) / (ro2 - ri2)]/CNOZZLE < 1.59$	
p = RPV normal operating	1055.3 psi	p = RPV normal operating	1055.3 psi

pressure		pressure	
ro = nozzle outer radius	11.6875 in	ro = nozzle outer radius	16.3125 in
ri = nozzle inner radius	5.8125 in	ri = nozzle inner radius	9.0162 in
CNOZZLE	1637 psi	CNOZZLE	1977 psi
1.068 < 1.15		1.003 < 1.15	
<b>Criterion 3 is Met</b>		<b>Criterion 5 is Met</b>	

In conclusion, based on meeting the criterion specified in the NRC condition (i.e., use of BWRVIP-108) listed in Regulatory Guide 1.147, Revision 17, the content of this proposed alternative to use the ASME Code Case N-702 in lieu of the ASME Section XI requirements in the 2007 Edition with the 2008 Addenda is acceptable. Thus, RBS believes that this alternative provides an acceptable level of quality and safety in accordance with 10 CFR 50.55a(z)(1) for all applicable RPV Nozzle-to-Vessel welds and Nozzle inside Radius Sections identified in Table 1.

#### IV. Duration of the Proposed Alternative

The analyses in BWRVIP-108 is based on the assumption that fluence at the nozzles is negligible and a number of heatup and cooldown cycles that represent the initial 40 years of plant operation and does not address a possible increase fluence or operating cycles for the extended operating period. Based on this analysis assumption and upon authorization by NRC, this request will be utilized during the RBS Fourth 10-Year ISI Interval beginning on December 1, 2017 to the end of the current operating license NFP-47, which will be at midnight on August 29, 2025.

#### V. Precedents

1. LaSalle County Station, Units 1 and 2, Relief from the requirements of the ASME Code RE: RRI3R14, Proposed Alternative to the examination requirements for Nozzle-to-Vessel Welds and Inner Radii Sections in Accordance with 10 CFR 50.55a(z)(1) – NRC SE for Use of Code Case N-702 – Dated: October 30, 2015, (TAC NOS MF5654 and MF5655) and (ADAMS Accession No. ML 15226A412).
2. Columbia Generating Station – Request for Alternative 3ISI-14 to the requirements of the ASME Code – NRC SE for Use of Code Case N-702- Dated: February 13, 2015, (TAC NO. MF3435) and (ADAMS Accession No. ML 15036A220).

3. River Bend Station, Unit 1 – RBS-ISI-15 Proposed Alternative to 10 CFR 50.55a Examination Requirements for Reactor Pressure Vessel Weld Inspections – NRC SE for Use of Code Case N-702 – Dated: August 2, 2010, (TAC NO. ME2817) and [ADAMS Accession No. ML101440097]

## **VI. References**

1. ASME Code, Section XI, 2007 Edition with the 2008 Addenda
2. USNRC Regulatory Guide 1.147 Revision 17, Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1, Dated August 2014
3. ASME Code Case N-702, Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1, Dated: February 20, 2004
4. BWRVIP-108 "Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," EPRI Technical Report 1003557, October 2002 (ADAMS Accession No. ML-023330203)
5. BWRVIP-241 "Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," EPRI Technical Report 1021005, October 2010 (ADAMS Accession No. ML11119A041)
6. Section 5.0 of NRC Safety Evaluation regarding BWRVIP-108 dated December 18, 2007 (ADAMS Accession No. ML073600374)
7. Section 5.0 of NRC Safety Evaluation regarding BWRVIP-241 dated April 19, 2013 (ML13071A240) Section 5.0 of NRC Safety Evaluation regarding BWRVIP-241 dated April 19, 2013 (ADAMS Accession No. ADAMS Accession No. ML13071A240)