

ArevaEPRDCPEm Resource

From: WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]
Sent: Friday, July 20, 2012 10:19 AM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); Tony.Lentz.ext@areva.com
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 10
Attachments: RAI 411 Supplement 10 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, and Supplement 3 on November 29, 2010. Supplement 4 was submitted on January 17, 2011 which provided a technically correct and complete response to 1 of the 4 questions. A revised schedule for the remaining three questions was provided in Supplement 5 on February 10, 2011 and Supplement 6 on March 16, 2011. Supplement 7 was submitted on April 5, 2011 which provided a technically correct and complete response to 1 of the 3 questions. A revised schedule for the remaining two questions was provided in Supplement 8 on May 4, 2011. Supplement 9 was submitted on June 7, 2011 which provided a technically correct and complete response to the remaining two questions.

The attached file, "RAI 411 Supplement 10 Response US EPR DC.pdf," provides a technically correct and complete revised response to Question 14.03.03-49 based on NRC staff feedback.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the revised response to RAI 411 Question 14.03.03-49.

The following table indicates the respective pages in the response document, "RAI 411 Supplement 10 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 411 — 14.03.03-49	2	7

This concludes the formal AREVA NP response to RAI 411, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager

AREVA NP Inc.
7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: WILLIFORD Dennis (RS/NB)
Sent: Tuesday, June 07, 2011 4:14 PM
To: 'Tesfaye, Getachew'
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 9

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, and Supplement 3 on November 29, 2010. Supplement 4 was submitted on January 17, 2011 which provided a technically correct and complete response to 1 of the 4 questions. A revised schedule for the remaining three questions was provided in Supplement 5 on February 10, 2011 and Supplement 6 on March 16, 2011. Supplement 7 was submitted on April 5, 2011 which provided a technically correct and complete response to 1 of the 3 questions. A revised schedule for the remaining two questions was provided in Supplement 8 on May 4, 2011.

The attached file, "RAI 411 Supplement 9 Response US EPR DC.pdf," provides technically correct and complete FINAL responses to the remaining two questions, as committed.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the response to RAI 411 Questions 14.03.03-48 and 14.03.03-49.

The following table indicates the respective pages in the response document, "RAI 411 Supplement 9 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 411 — 14.03.03-48	2	3
RAI 411 — 14.03.03-49	4	8

This concludes the formal AREVA NP response to RAI 411, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.

7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: WELLS Russell (RS/NB)
Sent: Wednesday, May 04, 2011 1:01 PM
To: 'Tesfaye, Getachew'
Cc: LENTZ Tony (External RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 8

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, Supplement 3 on November 29, 2010. Supplement 4 was submitted on January 17, 2011 which provided a technically correct and complete response to 1 of the 4 questions (Question 14.03.11-5). A revised schedule for the remaining three questions was provided in Supplement 5 on February 10, 2011 and Supplement 6 on March 16, 2011. Supplement 7 was submitted on April 5, 2011 which provided a technically correct and complete response to 1 of the 3 questions (Question 14.03.11-4).

In order to allow time for interaction with the NRC, the schedule for a technically correct and complete FINAL response to the remaining 2 questions for this RAI has been revised and is provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	June 9, 2011
RAI 411 — 14.03.03-49	June 9, 2011

Sincerely,

Russ Wells

U.S. EPR Design Certification Licensing Manager

AREVA NP, Inc.

3315 Old Forest Road, P.O. Box 10935

Mail Stop OF-57

Lynchburg, VA 24506-0935

Phone: 434-832-3884 (work)

434-942-6375 (cell)

Fax: 434-382-3884

[*Russell.Wells@Areva.com*](mailto:Russell.Wells@Areva.com)

From: WELLS Russell (RS/NB)

Sent: Tuesday, April 05, 2011 11:03 AM

To: 'Getachew.Tesfaye@nrc.gov'

Cc: LENTZ Tony (External RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)

Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 7

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, and Supplement 3 on November 29, 2010. Supplement 4 was submitted on January 17, 2011 which provided a technically correct and complete response to 1 of the 4 questions. A revised schedule for the remaining three questions was provided in Supplement 5 on February 10, 2011 and Supplement 6 on March 16, 2011. The attached file, "RAI 411 Supplement 7 Response US EPR DC.pdf," provides technically correct and complete responses to 1 of the remaining 3 questions, as committed.

The following table indicates the respective pages in the response document, "RAI 411 Supplement 7 Response US EPR DC.pdf," that contain AREVA NP's response to one question.

Question #	Start Page	End Page
RAI 411 — 14.03.11-4	2	4

The schedule for technically correct and complete responses to the remaining two questions is unchanged and provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	May 5, 2011
RAI 411 — 14.03.03-49	May 5, 2011

Sincerely,

Russ Wells

U.S. EPR Design Certification Licensing Manager

AREVA NP, Inc.

3315 Old Forest Road, P.O. Box 10935

Mail Stop OF-57

Lynchburg, VA 24506-0935

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Russell.Wells@Areva.com

From: WELLS Russell (RS/NB)

Sent: Wednesday, March 16, 2011 3:16 PM

To: 'Tefaye, Getachew'

Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)

Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 6

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, Supplement 3 on November 29, 2010. Supplement 4 was submitted on January 17, 2011 which provided a technically correct and complete response to 1 of the 4 questions (Question 14-3-11-5). A revised schedule was provided in Supplement 5 on February 10, 2011.

In order to allow time for interaction with the NRC, the schedule for a technically correct and complete FINAL response to the remaining 3 questions for this RAI has been revised and is provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	May 5, 2011
RAI 411 — 14.03.03-49	May 5, 2011
RAI 411 — 14.03.11-4	May 5, 2011

Sincerely,

Russ Wells

U.S. EPR Design Certification Licensing Manager

AREVA NP, Inc.

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Russell.Wells@Areva.com

From: BRYAN Martin (External RS/NB)

Sent: Thursday, February 10, 2011 10:41 AM

To: Tesfaye, Getachew
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WELLS Russell (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 5

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, and Supplement 3 on November 29, 2010. Supplement 4 was submitted on January 17, 2011 which provided a technically correct and complete response to 1 of the 4 questions (Question 14-3-11-5).

In order to allow time for interaction with the NRC, the schedule for a technically correct and complete FINAL response to the remaining 3 questions for this RAI has been revised and is provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	March 17, 2011
RAI 411 — 14.03.03-49	March 17, 2011
RAI 411 — 14.03.11-4	March 17, 2011

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: BRYAN Martin (External RS/NB)
Sent: Monday, January 17, 2011 10:13 AM
To: 'Tefsaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WELLS Russell (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 4

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010, Supplement 2 on October 14, 2010, and Supplement 3 on November 29, 2010. Based on discussions with NRC, the attached file, "RAI 411 Supplement 4 Question 14-3-11-5 Response US EPR DC.pdf" provides a technically correct and complete responses to 1 of the 4 questions, as committed.

The following table indicates the respective pages in the response document, "RAI 411 Supplement 4 Question 14-3-11-5 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 411 — 14.03.11-5	2	2

The schedule for technically correct and complete responses to the remaining 3 questions is unchanged and provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	February 17, 2011
RAI 411 — 14.03.03-49	February 17, 2011
RAI 411 — 14.03.11-4	February 17, 2011

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: BRYAN Martin (External RS/NB)
Sent: Monday, November 29, 2010 6:14 PM
To: 'Tefaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); WELLS Russell (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 3

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010 and Supplement 2 on October 14, 2010.

In order to allow time for interaction with the NRC, the schedule for a technically correct and complete FINAL response to this RAI has been revised and is provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	February 17, 2011
RAI 411 — 14.03.03-49	February 17, 2011
RAI 411 — 14.03.11-4	February 17, 2011
RAI 411 — 14.03.11-5	February 17, 2011

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: BRYAN Martin (External RS/NB)
Sent: Thursday, October 14, 2010 1:42 PM
To: 'Tefaye, Getachew'

Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 2

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010. A revised schedule was provided in Supplement 1 on September 13, 2010.

AREVA NP is unable to provide a response to the remaining questions at this time. The schedule for a technically correct and complete response to the remaining questions has been changed and is provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	December 2, 2010
RAI 411 — 14.03.03-49	December 2, 2010
RAI 411 — 14.03.11-4	December 2, 2010
RAI 411 — 14.03.11-5	December 2, 2010

Sincerely,

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
702 561-3528 cell
Martin.Bryan.ext@areva.com

From: BRYAN Martin (External RS/NB)
Sent: Monday, September 13, 2010 4:18 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); LENTZ Tony (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 1

Getachew,

AREVA NP Inc. provided a schedule for technically correct and complete responses to the 4 questions in RAI No. 411 on July 12, 2010.

AREVA NP is unable to provide a response to the remaining questions at this time. The schedule for a technically correct and complete response to the remaining questions has been changed and is provided below:

Question #	Response Date
RAI 411 — 14.03.03-48	October 15, 2010
RAI 411 — 14.03.03-49	October 15, 2010
RAI 411 — 14.03.11-4	October 15, 2010
RAI 411 — 14.03.11-5	October 15, 2010

Sincerely,

Martin (Marty) C. Bryan

U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
Tel: (434) 832-3016
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Martin.Bryan.ext@areva.com

From: BRYAN Martin (EXT)
Sent: Monday, July 12, 2010 4:34 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); LENTZ Tony F (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 411 Response US EPR DC.pdf," provides the schedule for technically correct and complete responses to these questions.

The following table indicates the respective pages in the response document, "RAI 411 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 411 — 14.03.03-48	2	2
RAI 411 — 14.03.03-49	3	4
RAI 411 — 14.03.11-4	5	5
RAI 411 — 14.03.11-5	6	6

A complete answer is not provided for 4 of the 4 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 411 — 14.03.03-48	September 13, 2010
RAI 411 — 14.03.03-49	September 13, 2010
RAI 411 — 14.03.11-4	September 13, 2010
RAI 411 — 14.03.11-5	September 13, 2010

Martin (Marty) C. Bryan
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
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Martin.Bryan.ext@areva.com

From: Tesfaye, Getachew [<mailto:Getachew.Tesfaye@nrc.gov>]
Sent: Friday, June 11, 2010 10:22 AM
To: ZZ-DL-A-USEPR-DL
Cc: Ng, Ching; Dixon-Herrity, Jennifer; Grady, Anne-Marie; Jackson, Christopher; McKirgan, John; Miernicki, Michael; Carneal, Jason; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 411(4734,4721), FSAR Ch. 14

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on May 25, 2010, and discussed with your staff on June 9, 2010. Drat RAI Question 14.03.03-49 was modified as a result of that discussion. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that cannot be answered within 30 days, it is expected that a date for receipt of this information will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

Thanks,
Getachew Tesfaye
Sr. Project Manager
NRO/DNRL/NARP
(301) 415-3361

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 3970

Mail Envelope Properties (2FBE1051AEB2E748A0F98DF9EEE5A5D4D41D25)

Subject: Response to U.S. EPR Design Certification Application RAI No. 411, FSAR Ch. 14, Supplement 10
Sent Date: 7/20/2012 10:18:55 AM
Received Date: 7/20/2012 10:19:13 AM
From: WILLIFORD Dennis (AREVA)

Created By: Dennis.Williford@areva.com

Recipients:

"BENNETT Kathy (AREVA)" <Kathy.Bennett@areva.com>
Tracking Status: None
"DELANO Karen (AREVA)" <Karen.Delano@areva.com>
Tracking Status: None
"ROMINE Judy (AREVA)" <Judy.Romine@areva.com>
Tracking Status: None
"RYAN Tom (AREVA)" <Tom.Ryan@areva.com>
Tracking Status: None
"Tony.Lentz.ext@areva.com" <Tony.Lentz.ext@areva.com>
Tracking Status: None
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Tracking Status: None

Post Office: auscharm02.adom.ad.corp

Files	Size	Date & Time
MESSAGE	19056	7/20/2012 10:19:13 AM
RAI 411 Supplement 10 Response US EPR DC.pdf		905143

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Response to

**Request for Additional Information No. 411(4734, 4721), Revision 0,
Supplement 10**

6/11/2010

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

**SRP Section: 14.03.03 - Piping Systems and Components - Inspections, Tests,
Analyses, and Acceptance Criteria**

**SRP Section: 14.03.11 - Containment Systems and Severe Accidents -
Inspections, Tests, Analyses, and Acceptance Criteria**

Application Section: FSAR Section 14.3

**QUESTIONS for Engineering Mechanics Branch 2 (ESBWR/ABWR Projects)
(EMB2)**

**QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects)
(SPCV)**

Question 14.03.03-49:**Follow-up to RAI 210, Question 14.03.03-33**

The staff recognized that in AREVA's response to Part E of RAI 14.03-10 Supplement 4, the applicant modified the definition of "as-built" and decided to delete or replace "as-installed" with "as-built" throughout US EPR FSAR Tier 1.

In AREVA's response to RAI 14.03.03-33, the staff found the ITAAC proposed by the applicant regarding ASME Code Section III components are not acceptable.

Part a) Design ITAAC

The staff identified two concerns in the response. First, in the ITA, the staff found that inspections for the existence of the Design Reports are not the objectives of the ITAAC. Rather, the ITA should be reworded as "Inspections of the ASME Code Section III Design Reports (NCA-3550) and supporting documents will be performed." Similarly, the staff found that the Acceptance Criteria is not acceptable because simply verifying the existence of the report is insufficient. The staff requests the applicant to modify the acceptance criteria to "ASME Code Section III Design Reports (NCA-3550) exist and conclude that for components listed as ASME Code Section III in Table x.x.x-x comply with the ASME Code Section III requirements."

Part b) As-built Reconciliation ITAAC

In its response to RAI 14.03.03-33 Part (b), the applicant refused to add an ITAAC to perform the "as-built analyses" because the nth plant will be built like the (n-1)th plant. Furthermore, the applicant indicated that there is no ASME Code requirement for a separate "as-built analysis" and the components are ASME Code Section III when they leave the factory before their installation at their final location onsite. The applicant proposed to add an ITAAC to verify that the components are fabricated in accordance with ASME Code Section III requirements. An inspection will be performed to verify that the design report has been revised to reflect as-built deviation from the design if applicable.

The staff found that the justifications and proposed ITAAC to be unacceptable. First, the staff requested the applicant, in all RAI questions, to perform "as-built reconciliation". These are analyses to reconcile deviation for ASME Code requirements. It is believed that the applicant misunderstood that with the term "as-built analysis".

Regarding the proposed ITAAC, the appropriate ITA to reconcile the deviation should not be an inspection. The staff requests that AREVA modify the ITA to "An analysis will be performed to reconcile the as-built condition of the components with the ASME Code Section III Design Reports." The staff also requests the AC be modified to "ASME Code Design Report(s) exits and concludes that design reconciliation has been completed in accordance with the ASME Code for as-built reconciliation of the components identified in Table x.x.x-x as ASME Code Section III. The report documents the results of the reconciliation analysis."

c) Fabrication and Installation ITAAC

In its response to RAI 14.03.03-33 Part (c), AREVA again indicated that there exist ITAAC for welding inspections and hydrostatic test. The staff found this response to be inadequate

because the scope of assuring the components are fabricated, installed, and inspected is broader than that of the welding and hydrostatic testing. During the review of previous Design Certifications, in addition to the welding and Hydrostatic testing ITAAC, the staff determined that three distinct ITAAC covering i) design, ii) as-built reconciliation, and iii) fabrication & installation activities would encompass the complete scope to ensure that the components to be properly designed and constructed in accordance with ASME Code Section III requirements. It should also be noted that the fabrication & installation ITAAC for pipng was properly addressed in RAI 14.03.03-38 by AREVA.

The staff requests that AREVA include an ITAAC to address fabrication & installation of ASME Code Section III components.

Response to Question 14.03.03-49:

This response supersedes the prior response to Question 14.03.03-49 in its entirety.

Item a:

Design ITAAC

U.S. EPR FSAR Tier 1, Chapters 2 and 3 will be revised to standardize design commitments and ITAAC information for ASME Code Section III component design. The standard ASME Code Section III component design format is shown in Table 14.03-03-49-1, and the ITAAC items being revised are listed in Table 14.03-03-49-2.

Item b:

As-built Reconciliation ITAAC

In discussions between the industry and the NRC, there has been specific significance applied to the use of the phrase “as-built” in ITAAC. As defined in NEI-08-01, which is endorsed by RG 1.215, “as-built” means in the final location at the plant site. ASME Code Section III Component Design reports do apply to the site installation of the component, and the phrase “as-built analysis” does not apply to the ASME Code component design report in Tier 1.

U.S. EPR FSAR Tier 1, Chapters 2 and 3 will be revised to standardize design commitments and ITAAC information for ASME Code Section III component reconciliation. The standard ASME Code Section III component reconciliation format is shown in Table 14.03-03-49-3, and the ITAAC items being revised are listed in Table 14.03-03-49-4.

Item c:

Fabrication, Installation, and Inspection ITAAC

U.S. EPR FSAR Tier 1, Chapters 2 and 3 will be revised to add design commitments and ITAAC information for ASME Code Section III components fabrication, installation, and inspection. The standard ASME Code Section III components fabrication, installation, and inspection format is shown in Table 14.03-03-49-5, and the design commitments and ITAAC items being added are listed in Table 14.03-03-49-6.

FSAR Impact:

U.S. EPR FSAR Tier 1, Chapter 2 and Chapter 3 will be revised as described in the response and indicated on the enclosed markup.

Table 14.03.03-49-1—Revised ITAAC for ASME Code Section III Component Design

3.x Components listed in Table x.x.x-x as ASME Code Section III are designed in accordance with ASME Code Section III requirements.

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
Components listed in Table x.x.x-x as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) conclude that the design of components listed as ASME Code Section III in Table x.x.x-x complies with ASME Code Section III requirements.

Table 14.03.03-49-2—ITAAC Revised for ASME Code Section III Component Design

U.S. EPR FSAR Tier 1 Section	Design Commitment and ITAAC number
2.2.1	3.16
2.2.1	3.25
2.2.2	3.13
2.2.3	3.15
2.2.4	3.14
2.2.5	3.14
2.2.6	3.15
2.2.7	3.15
2.2.8	3.4
2.3.3	3.14
2.5.4	3.21
2.6.8	3.8
2.7.1	3.14
2.7.2	3.14
2.7.5	3.3
2.7.11	3.5
2.8.2	3.4
2.8.6	3.5
2.8.7	3.4
2.9.3	3.7
3.5	3.12

Table 14.03.03-49-3—Revised ITAAC for ASME Code Section III Component Reconciliation

3.x Components listed in Table x.x.x-x as ASME Code Section III are reconciled in accordance with ASME Code Section III design requirements.

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
Components listed in Table x.x.x-x as ASME Code Section III are reconciled in accordance with ASME Code Section III design requirements.	Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III in Table x.x.x-x will be performed.	For components listed as ASME Code Section III in Table x.x.x-x, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.

Table 14.03.03-49-4—ITAAC Revised for ASME Code Section III Component Reconciliation

U.S. EPR FSAR Tier 1 Section	Design Commitment and ITAAC number
2.2.1	3.26
2.2.2	3.14
2.2.3	3.16
2.2.4	3.15
2.2.5	3.15
2.2.6	3.16
2.2.7	3.16
2.2.8	3.5
2.3.3	3.15
2.5.4	3.22
2.6.8	3.9
2.7.1	3.15
2.7.2	3.15
2.7.5	3.4
2.7.11	3.6
2.8.2	3.5
2.8.6	3.6
2.8.7	3.5
2.9.3	3.8
3.5	3.13

Table 14.03.03-49-5—New ITAAC for ASME Code Section III Component Fabrication, Installation, and Inspection

3.x Components listed in Table x.x.x-x as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
Components listed in Table x.x.x-x as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of components listed in Table 2.2.2-1 as ASME Code Section III will be performed.	For components listed in Table x.x.x-x as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

Table 14.03.03-49-6—New ITAAC for ASME Code Section III Component Fabrication, Installation, and Inspection

U.S. EPR FSAR Tier 1 Section	Design Commitment and ITAAC number
2.2.1	3.30
2.2.2	3.17
2.2.3	3.19
2.2.4	3.18
2.2.5	3.18
2.2.6	3.19
2.2.7	3.19
2.2.8	3.9
2.3.3	3.18
2.5.4	3.25
2.6.8	3.12
2.7.1	3.18
2.7.2	3.18
2.7.5	3.7
2.7.11	3.17
2.8.2	3.13
2.8.6	3.14
2.8.7	3.13
2.9.3	3.11
3.5	3.16

U.S. EPR Final Safety Analysis Report Markups



- 2.3 The location of the RCS equipment is as listed in Table 2.2.1-1—RCS Equipment Mechanical Design.
- 2.4 The RCS loops are physically separated from each other.
- 3.0 Mechanical Design Features**
- 3.1 Pumps and valves listed in Table 2.2.1-1 will be functionally designed and qualified such that each pump and valve is capable of performing its intended function for a full range of system differential pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.
- 3.2 Check valves listed in Table 2.2.1-1 will function to change position as listed in Table 2.2.1-1 under system operating conditions.
- 3.3 Components identified as Seismic Category I in Table 2.2.1-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.1-1.
- 3.4 Deleted.
- 3.5 The steam outlet nozzles on the SGs include flow-limiting devices.
- 3.6 Deleted.
- 3.7 The applicable piping and interconnected component nozzles listed in Table 2.2.1-1 are evaluated for LBB.
- 3.8 The RPV internals will withstand the effects of flow-induced vibration.
- 3.9 The RCS allows movement of the components for thermal expansion and contraction.
- 3.10 Deleted.
- 3.11 Deleted.
- 3.12 Deleted.
- 3.13 Deleted.
- 3.14 Deleted.
- 3.15 Deleted.
- 3.16 RPV internals listed in Table 2.2.1-1 are designed in accordance with ASME Code Section III, Subsection NG requirements.
- 3.17 Core support structure welds meet ASME Code Section III non-destructive examination requirements. ~~Subsection NG requirements.~~
- 3.18 The RPV internals are provided with irradiation specimen guide baskets to hold capsules containing RPV material surveillance specimens.



- 3.19 Each RCP contains an oil collection system.
- 3.20 RCS piping shown as ASME Code Section III on Figure 2.2.1-1 is designed in accordance with ASME Code Section III requirements.
- 3.21 RCS piping shown as ASME Code Section III on Figure 2.2.1-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III ~~Design Report~~ design requirements.
- 3.22 Pressure boundary welds in RCS piping shown as ASME Code Section III on Figure 2.2.1-1 ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.23 RCS piping shown as ASME Code Section III on Figure 2.2.1-1 retains pressure boundary integrity at design pressure.
- 3.24 RCS piping shown as ASME Code Section III on Figure 2.2.1-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.25 Components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, are designed in accordance with ASME Code Section III requirements.
- 3.26 Components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.27 Pressure boundary welds on components listed in Table 2.2.1-1 as ASME Code Section III, ~~other than RPV internals, are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.28 Components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, retain pressure boundary integrity at design pressure.
- 3.29 The RCP flywheel maintains its structural integrity during an overspeed event.
- 3.30 Components listed in Table 2.2.1-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls

- 4.1 Displays listed in Tables 2.2.1-2—Equipment and Valve Actuator Power Supplies and Controls and 2.2.1-3—Instrumentation Power Supplies, Classification, and Displays are ~~retrievable~~ indicated in the main control room (MCR) and remote shutdown station (RSS) ~~as listed in Tables 2.2.1-2 and 2.2.1-3.~~
- 4.2 Controls on the PICS in the MCR and the RSS perform the function listed ~~The RCS equipment controls are provided in the MCR and RSS as listed~~ in Table 2.2.1-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.1-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the



Table 2.2.1-5—Reactor Coolant System ITAAC (11 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.9	The RCS allows movement of the components for thermal expansion and contraction.	<p><u>a. An analysis of the RCS will be performed.</u> A test of the RCS will be performed.</p> <p><u>b. A test of the RCS will be performed.</u></p>	<p><u>a. A test specification will define clearances and gaps between RCS component supports.</u> The measured RCS gaps meet the specification requirements for the necessary component supports.</p> <p><u>b. The measured RCS clearances and gaps meet the test specification requirements for the necessary RCS component supports.</u></p>
3.10	Deleted.	Deleted.	Deleted.
3.11	Deleted.	Deleted.	Deleted.
3.12	Deleted.	Deleted.	Deleted.
3.13	Deleted.	Deleted.	Deleted.
3.14	Deleted.	Deleted.	Deleted.
3.15	Deleted.	Deleted.	Deleted.
3.16	RPV internals listed in Table 2.2.1-1 are designed in accordance with ASME Code Section III, Subsection NG <u>requirements</u> .	<p>An <u>a</u> <u>Analysis of the ASME Code Section III Design Reports (NCA-3550) and associated reference documents</u> will be performed. [[DAC]]</p>	<p>An ASME Code Section III <u>Design Reports (NCA-3550) conclude that the design of RPV internals listed in Table 2.2.1-1 complies with ASME Code Section III, Subsection NG requirements.</u> [[DAC]], Subsection NG stress report exists for each RPV internal component listed in Table 2.2.1-1.</p>



Table 2.2.1-5—Reactor Coolant System ITAAC (11 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.24	RCS piping shown as ASME Code Section III on Figure 2.2.1-1 is <u>fabricated, installed,</u> and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.2.1-1</u> will be performed.	For RCS piping shown as ASME Code Section III on Figure 2.2.1-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.25	Components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, are designed in accordance with ASME Code Section III requirements.	Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III, <u>other than RPV internals,</u> in Table 2.2.1-1 comply <u>complies</u> with ASME Code Section III requirements.



Table 2.2.1-5—Reactor Coolant System ITAAC (11 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.26	<p>Components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p><u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.1-1</u> An analysis will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.1-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.1-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</p>
3.27	<p>Pressure boundary welds on components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p>	<p>For components listed as ASME Code Section III in Table 2.2.1-1, other than RPV internals, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welding has been performed in accordance with welds comply with</u> ASME Code Section III <u>requirements.</u></p>



Table 2.2.1-5—Reactor Coolant System ITAAC (11 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.28	Components listed in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components .	For components listed as ASME Code Section III, <u>other than RPV internals</u> , in Table 2.2.1-1, other than RPV internals , ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.29	The RCP flywheel maintains its structural integrity during an overspeed event.	An overspeed test will be performed.	Test results verify that there is no loss of structural integrity at 125 percent of the maximum motor synchronous speed of the motor 1200 rpm.
3.30	Components listed in Table 2.2.1-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	<u>An inspection of components listed in Table 2.2.1-1 as ASME Code Section III</u> An inspection of ASME Code Data reports will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.1-1 have been installed <u>For components listed in Table 2.2.1-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.



- 3.9 IRWSTS piping shown as ASME Code Section III on Figure 2.2.2-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III ~~Design Report~~ design requirements.
- 3.10 Pressure boundary welds in IRWSTS piping shown as ASME Code Section III on Figure 2.2.2-1 are ~~in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.11 IRWSTS piping shown as ASME Code Section III on Figure 2.2.2-1 retains pressure boundary integrity at design pressure.
- 3.12 IRWSTS piping shown as ASME Code Section III on Figure 2.2.2-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.13 Components listed in Table 2.2.2-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.2.2-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.15 Pressure boundary welds on components listed in Table 2.2.2-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.16 Components listed in Table 2.2.2-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.17 Components listed in Table 2.2.2-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.18 Containment isolation valves are located close to containment penetrations.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.2.2-2—IRWSTS Equipment I&C and Electrical Design are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.2.2-2~~.
- 4.2 ~~The IRWSTS equipment~~ Controls on the PICS in the MCR and the RSS perform the function ~~controls are provided in the MCR and the RSS as~~ listed in Table 2.2.2-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.2-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.
- 4.4 ~~Deleted.~~ IRWST has level indication.



Table 2.2.2-3—In-Containment Refueling Water Storage Tank System ITAAC (9 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.12	IRWSTS piping shown as ASME Code Section III on Figure 2.2.2-1 is <u>fabricated</u> , installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built <u>shown as ASME Code Section III on Figure 2.2.2-1</u> piping will be performed.	For IRWSTS piping shown as ASME Code Section III on Figure 2.2.2-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.13	Components listed in Table 2.2.2-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.2.2-1 complies with ASME Code Section III requirements.
3.14	Components listed in Table 2.2.2-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	<u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.2-1</u> An analysis will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.2-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.2-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.



Table 2.2.2-3—In-Containment Refueling Water Storage Tank System ITAAC (9 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.15	Pressure boundary welds on components listed in Table 2.2.2-1 as ASME Code Section III are in accordance with meet ASME Code Section III <u>non-destructive examination</u> requirements.	For components listed as ASME Code Section III in Table 2.2.2-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welding has been performed in accordance welds comply</u> with ASME Code Section III <u>requirements</u> .
3.16	Components listed in Table 2.2.2-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	For components listed as ASME Code Section III in Table 2.2.2-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.17	Components listed in Table 2.2.2-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	<u>For components listed in Table 2.2.2-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected.</u> ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.2-1 have been installed in accordance with ASME Code Section III requirements.



- 3.9 Deleted.
- 3.10 SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1 is designed in accordance with ASME Code Section III requirements.
- 3.11 SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1 is ~~installed~~ reconciled in accordance with ~~an~~ ASME Code Section III ~~Design Report~~ design requirements.
- 3.12 Pressure boundary welds in SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1 are ~~in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.13 SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1 retains pressure boundary integrity at design pressure.
- 3.14 SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.2.3-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.16 Components listed in Table 2.2.3-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.17 Pressure boundary welds on components listed in Table 2.2.3-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.18 Components listed in Table 2.2.3-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.19 Components listed in Table 2.2.3-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.20 Containment isolation valves are located close to containment penetrations.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.2.3-2—SIS/RHRS Equipment I&C and Electrical Design are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.2.3-2~~.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The SIS/RHRS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.2.3-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.3-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the



Table 2.2.3-3—Safety Injection System and Residual Heat Removal System ITAAC (10 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.14	SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1 is <u>fabricated,</u> installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.2.3-1</u> will be performed.	For SIS/RHRS piping shown as ASME Code Section III on Figure 2.2.3-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.15	Components listed in Table 2.2.3-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections - <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.2.3-1 comply <u>complies</u> with ASME Code Section III requirements.



Table 2.2.3-3—Safety Injection System and Residual Heat Removal System ITAAC (10 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
<p>3.16</p> <p>Components listed in Table 2.2.3-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.3-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.3-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.3-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</p>
<p>3.17</p> <p>Pressure boundary welds on components listed in Table 2.2.3-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p>	<p>For components listed as ASME Code Section III in Table 2.2.3-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u></p>
<p>3.18</p> <p>Components listed in Table 2.2.3-1 as ASME Code Section III retain pressure boundary integrity at design pressure.</p>	<p>Hydrostatic tests will be performed on the <u>components.</u></p>	<p>For components listed as ASME Code Section III in Table 2.2.3-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</p>



Table 2.2.3-3—Safety Injection System and Residual Heat Removal System ITAAC (10 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
<p>3.19</p>	<p>Components listed in Table 2.2.3-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.3-1 have been installed For components listed in Table 2.2.3-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</p>
<p><u>3.20</u></p>	<p><u>Containment isolation valves are located close to containment penetrations.</u></p>	<p>a. An analysis concludes that <u>the containment isolation valves listed in Table 2.2.3-1 are located as close to the containment penetrations as practical with consideration of the following:</u></p> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u> <p>b. A report concludes that <u>deviations to the design location of containment isolation valves have been reconciled.</u></p>



- 3.9 EFWS piping shown as ASME Code Section III on Figure 2.2.4-1 is designed in accordance with ASME Code Section III requirements.
- 3.10 EFWS piping shown as ASME Code Section III on Figure 2.2.4-1 is ~~installed~~ reconciled in accordance with ~~an~~ ASME Code Section III ~~Design Report~~ design requirements.
- 3.11 Pressure boundary welds in EFWS piping shown as ASME Code Section III on Figure 2.2.4-1 ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.12 EFWS piping shown as ASME Code Section III on Figure 2.2.4-1 retains pressure boundary integrity at design pressure.
- 3.13 EFWS piping shown as ASME Code Section III on Figure 2.2.4-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.2.4-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.2.4-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.16 Pressure boundary welds on components listed in Table 2.2.4-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.17 Components listed in Table 2.2.4-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.18 Components listed in Table 2.2.4-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.19 Containment isolation valves are located close to containment penetrations.

4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls

- 4.1 Displays listed in Table 2.2.4-2—EFWS Equipment I&C and Electrical Design are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.2.4-2~~.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The EFWS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.2.4-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.4-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.



Table 2.2.4-3—Emergency Feedwater System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.14	Components listed in Table 2.2.4-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections -Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.2.4-1 comply <u>complies</u> with ASME Code Section III requirements.
3.15	Components listed in Table 2.2.4-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis -Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.4-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.4-1, ASME Code Data Reports (N-5) conclude that <u>design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.4-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.
3.16	Pressure boundary welds on components listed in Table 2.2.4-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.2.4-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u>



Table 2.2.4-3—Emergency Feedwater System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.17	Components listed in Table 2.2.4-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components.	For components listed as ASME Code Section III in Table 2.2.4-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.18	Components listed in Table 2.2.4-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.2.4-1 as ASME Code Section III will be performed.</u>	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.4-1 have been installed <u>For components listed in Table 2.2.4-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</u>
3.19	<u>Containment isolation valves are located close to containment penetrations.</u>	a. <u>An analysis will be performed.</u>	a. <u>An analysis concludes that the containment isolation valves listed in Table 2.2.4-1 are located as close to the containment penetrations as practical with consideration of the following:</u> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u>



- 3.6 Deleted.
- 3.7 Deleted.
- 3.8 Deleted.
- 3.9 FPCPS piping shown as ASME Code Section III on Figure 2.2.5-1 is designed in accordance with ASME Code Section III requirements.
- 3.10 FPCPS piping shown as ASME Code Section III on Figure 2.2.5-1 is ~~installed-reconciled~~ in accordance with ~~an~~-ASME Code Section III ~~Design Report~~design requirements.
- 3.11 Pressure boundary welds in FPCPS piping shown as ASME Code Section III on Figure 2.2.5-1 ~~are in accordance with~~meet ASME Code Section III non-destructive examination requirements.
- 3.12 FPCPS piping shown as ASME Code Section III on Figure 2.2.5-1 retains pressure boundary integrity at design pressure.
- 3.13 FPCPS piping shown as ASME Code Section III on Figure 2.2.5-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.2.5-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.2.5-1 as ASME Code Section III are ~~fabricated-reconciled~~ in accordance with ASME Code Section III design requirements.
- 3.16 Pressure boundary welds on components listed in Table 2.2.5-1 as ASME Code Section III ~~are in accordance with~~meet ASME Code Section III non-destructive examination requirements.
- 3.17 Components listed in Table 2.2.5-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.18 Components listed in Table 2.2.5-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.19 Containment isolation valves are located close to containment penetrations.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.2.5-2—FPCPS Equipment I&C and Electrical Design are ~~retrievable~~indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.2.5-2~~.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function~~The FPCPS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.2.5-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.5-2 responds to the state requested ~~by a test signal~~ and provides



**Table 2.2.5-3—Fuel Pool Cooling and Purification System
ITAAC (7 Sheets)**

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.14	Components listed in Table 2.2.5-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.2.5-1 comply <u>complies</u> with ASME Code Section III requirements.
3.15	Components listed in Table 2.2.5-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.5-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.5-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.
3.16	Pressure boundary welds on components listed in Table 2.2.5-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	For components listed as ASME Code Section III in Table 2.2.5-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of</u> pressure boundary <u>welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements</u> .



**Table 2.2.5-3—Fuel Pool Cooling and Purification System
ITAAC (7 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.17	Components listed in Table 2.2.5-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components .	For components listed as ASME Code Section III in Table 2.2.5-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.18	Components listed in Table 2.2.5-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.2.5-1 as ASME Code Section III</u> will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.5-1 have been installed <u>For components listed in Table 2.2.5-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
3.19	<u>Containment isolation valves are located close to containment penetrations.</u>	a. <u>An analysis will be performed.</u>	a. <u>An analysis concludes that the containment isolation valves listed in Table 2.2.5-1 are located as close to the containment penetrations as practical with consideration of the following:</u> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u>



- 3.7 Deleted.
- 3.8 Deleted.
- 3.9 Deleted.
- 3.10 CVCS piping shown as ASME Code Section III on Figure 2.2.6-1 is designed in accordance with ASME Code Section III requirements.
- 3.11 CVCS piping shown as ASME Code Section III on Figure 2.2.6-1 is installed in accordance with an ASME ~~Code~~reconciled Section III Design Report.
- 3.12 Pressure boundary welds in CVCS piping shown as ASME Code Section III on Figure 2.2.6-1 ~~are in accordance with~~meet ASME Code Section III non-destructive examination requirements.
- 3.13 CVCS piping shown as ASME Code Section III on Figure 2.2.6-1 retains pressure boundary integrity at design pressure.
- 3.14 CVCS piping shown as ASME Code Section III on Figure 2.2.6-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.2.6-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.16 Components listed in Table 2.2.6-1 as ASME Code Section III are ~~fabricated~~reconciled in accordance with ASME Code Section III design requirements.
- 3.17 Pressure boundary welds on components listed in Table 2.2.6-1 as ASME Code Section III ~~are in accordance with~~meet ASME Code Section III non-destructive examination requirements.
- 3.18 Components listed in Table 2.2.6-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.19 Components listed in Table 2.2.6-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.20 Containment isolation valves are located close to containment penetrations.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.2.6-2—CVCS Equipment I&C and Electrical Design are ~~retrievable~~indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.2.6-2~~.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The CVCS equipment controls are provided in the MCR and the RSS as listed in Table 2.2.6-2.~~
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.6-2 responds to the state requested ~~by a test signal~~ and provides



**Table 2.2.6-3—Chemical and Volume Control System ITAAC
(7 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.14	CVCS piping shown as ASME Code Section III on Figure 2.2.6-1 are-is <u>fabricated,</u> installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.2.6-1</u> will be performed.	For CVCS piping shown as ASME Code Section III on Figure 2.2.6-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.15	Components listed in Table 2.2.6-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections- <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.2.6-1 comply <u>complies</u> with ASME Code Section III requirements.



**Table 2.2.6-3—Chemical and Volume Control System ITAAC
(7 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.16	<p>Components listed in Table 2.2.6-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis- <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.6-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u></p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.6-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.6-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u></p>
3.17	<p>Pressure boundary welds on components listed in Table 2.2.6-1 as ASME Code Section III are in accordance with meet ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p>	<p>For components listed as ASME Code Section III in Table 2.2.6-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u></p>
3.18	<p>Components listed in Table 2.2.6-1 as ASME Code Section III retain pressure boundary integrity at design pressure.</p>	<p>Hydrostatic tests will be performed on the components.</p>	<p>For components listed as ASME Code Section III in Table 2.2.6-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</p>



**Table 2.2.6-3—Chemical and Volume Control System ITAAC
(7 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.19	<p>Components listed in Table 2.2.6-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.2.6-1 as ASME Code Section III</u> will be performed.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.6-1 have been installed <u>For components listed in Table 2.2.6-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>
3.20	<p><u>Containment isolation valves are located close to containment penetrations.</u></p>	<p>a. <u>An analysis will be performed.</u></p> <p>b. <u>Inspection of the location of containment isolation valves will be performed. Deviations to the design location of containment isolation valves will be reconciled to the design analysis.</u></p>	<p>a. <u>An analysis concludes that the containment isolation valves listed in Table 2.2.6-1 are located as close to the containment penetrations as practical with consideration of the following:</u></p> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u> <p>b. <u>A report concludes that deviations to the design location of containment isolation valves have been reconciled.</u></p>



- 3.8 Deleted.
- 3.9 Deleted.
- 3.10 EBS piping shown as ASME Code Section III on Figure 2.2.7-1 is designed in accordance with ASME Code Section III requirements.
- 3.11 EBS piping shown as ASME Code Section III on Figure 2.2.7-1 is ~~installed-reconciled~~ in accordance with an ASME Code Section III Design Report.
- 3.12 Pressure boundary welds in EBS piping shown as ASME Code Section III on Figure 2.2.7-1 ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.13 EBS piping shown as ASME Code Section III on Figure 2.2.7-1 retains pressure boundary integrity at design pressure.
- 3.14 EBS piping shown as ASME Code Section III on Figure 2.2.7-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.2.7-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.16 Components listed in Table 2.2.7-1 as ASME Code Section III are ~~fabricated-reconciled~~ in accordance with ASME Code Section III design requirements.
- 3.17 Pressure boundary welds on components listed in Table 2.2.7-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.18 Components listed in Table 2.2.7-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.19 Components listed in Table 2.2.7-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.20 Containment isolation valves are located close to containment penetrations.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.2.7-2—EBS Equipment I&C and Electrical Design are ~~retrievable-indicated~~ in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.2.7-2.~~
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The EBS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.2.7-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.2.7-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the



Table 2.2.7-3—Extra Borating System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.14	EBS piping shown as ASME Code Section III on Figure 2.2.7-1 are-is <u>fabricated</u> , installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.2.7-1</u> will be performed.	For EBS piping shown as ASME Code Section III on Figure 2.2.7-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.15	Components listed in Table 2.2.7-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.2.7-1 comply <u>complies</u> with ASME Code Section III requirements.
3.16	Components listed in Table 2.2.7-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.7-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.7-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.7-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.



Table 2.2.7-3—Extra Borating System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.17	Pressure boundary welds on components listed in Table 2.2.7-1 as ASME Code Section III are in accordance with meet ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.2.7-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of</u> pressure boundary <u>welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements</u> .
3.18	Components listed in Table 2.2.7-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components .	For components listed as ASME Code Section III in Table 2.2.7-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.19	Components listed in Table 2.2.7-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.2.7-1 as ASME Code Section III</u> will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that as built components listed as ASME Code Section III in Table 2.2.7-1 have been installed <u>For components listed in Table 2.2.7-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the</u> pipng is <u>components are fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.



2.2.8 Fuel Handling System

1.0 Description

The fuel handling system (FHS) provides for handling of fuel assemblies from the time new fuel assemblies are received at the plant site until the spent fuel assemblies are stored in the spent fuel pool and removed through the spent fuel cask transfer facility (SFCTF). The FHS handles and transfers fuel assemblies across the containment. The system provides a means of receiving, inspecting, and storing new fuel assemblies. The spent fuel assemblies are stored in the underwater storage racks in the spent fuel pool. The main pieces of equipment used for fuel handling operations are the refueling machine, fuel transfer tube facility, new fuel elevator, spent fuel machine, auxiliary crane, and fuel storage racks. After sufficient decay, spent fuel assemblies may be removed from the spent fuel pool for loading into the spent fuel cask using the SFCTF. The main pieces of equipment in the SFCTF are the spent fuel cask transfer machine (SFCTM) for movement of the spent fuel cask within the loading hall of the Fuel Building and a penetration assembly for connection of the spent fuel cask to the cask loading pit.

The FHS provides the following safety related functions:

- Maintains fuel assemblies in a subcritical array.
- ~~Facilitates cooling of the irradiated fuel assemblies to avoid overheating.~~
- Provides for safe handling of heavy loads (i.e., loads weighing more than one fuel assembly and its handling device) to prevent a load drop in a critical area.
- Maintains its portion of the containment isolation.
- Maintains the fluid boundary with the penetration assembly to avoid draining the spent fuel pool.
- Prevents tipping or dropping of a spent fuel cask using the SFCTM.

2.0 Arrangement

2.1 The location of the FHS equipment is as listed in Table 2.2.8-1—FHS Equipment Mechanical Design.

3.0 Mechanical Design Features

3.1 Deleted.

3.2 Components identified as Seismic Category I in Table 2.2.8-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.8-1.

3.3 Deleted.

3.4 Components and connecting piping listed in Table 2.2.8-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.



- 3.5 Components and connecting piping listed in Table 2.2.8-1 as ASME Code Section III are ~~fabricated-reconciled~~ in accordance with ASME Code Section III design requirements.
- 3.6 Pressure boundary welds on components and connecting piping listed in Table 2.2.8-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.7 Components and connecting piping listed in Table 2.2.8-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.8 The new and spent fuel storage racks maintain the effective neutron multiplication factor less than the required limits during normal operations, during and after design basis seismic events, and during and after design basis dropped fuel assembly accidents.
- 3.9 Components and connecting piping listed in Table 2.2.8-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.10 Transfer Tube piping inside the RCB is designed in accordance with ASME Code Section III requirements.
- 3.11 Transfer Tube piping inside the RCB is reconciled in accordance with an ASME Code Section III Design Report.
- 3.12 Transfer Tube piping inside the RCB is fabricated, installed and inspected in accordance with ASME Code Section III requirements.
- 3.13 Pressure boundary welds in Transfer Tube piping inside the RCB meet ASME Code Section III non-destructive examination requirements.
- 3.14 Transfer Tube piping inside the RCB retains pressure boundary integrity at design pressure.

4.0 System Inspections, Tests, Analyses, and Acceptance Criteria

Table 2.2.8-2 lists the FHS ITAAC.



Table 2.2.8-2—Fuel Handling System ITAAC (4 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
2.1	The location of the FHS equipment is as listed in Table 2.2.8-1.	An inspection will be performed of the location of the equipment listed in Table 2.2.8-1.	The <u>FHS</u> equipment listed in Table 2.2.8-1 is located as listed in Table 2.2.8-1.
3.1	Deleted.	Deleted.	Deleted.
3.2	Components identified as Seismic Category I in Table 2.2.8-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.8-1.	<p>a. Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Table 2.2.8-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.</p> <p>b. Inspections will be performed of the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.2.8-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the<u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>	<p>a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.2.8-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.8-1 including the time required to perform the listed function.</p> <p>b. Inspection reports exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.2.8-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the<u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>
3.3	Deleted.	Deleted.	Deleted.
3.4	Components <u>and connecting piping</u> listed in Table 2.2.8-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components <u>and connecting piping</u> listed as ASME Code Section III in Table 2.2.8-1 comply <u>complies</u> with ASME Code Section III requirements.

Table 2.2.8-2—Fuel Handling System ITAAC (4 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.5	<p>Components <u>and connecting piping</u> listed in Table 2.2.8-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis- <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.2.8-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u></p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.2.8-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.2.8-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u></p>
3.6	<p>Pressure boundary welds on components <u>and connecting piping</u> listed in Table 2.2.8-1 as ASME Code Section III are in accordance with <u>meet ASME Code Section III non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds, other than RPV internals, will be performed <u>verify that welding is performed</u> in accordance with ASME Code Section III requirements.</p>	<p>ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of</u> pressure boundary welding for components <u>and connecting piping</u> listed as ASME Code Section III in Table 2.2.8-1 has been performed in accordance with ASME Code Section III <u>requirements</u>.</p>
3.7	<p>Components <u>and connecting piping</u> listed in Table 2.2.8-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p>	<p>Hydrostatic tests will be performed on the components.</p>	<p>For components <u>and connecting piping</u> listed as ASME Code Section III in Table 2.2.8-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</p>



Table 2.2.8-2—Fuel Handling System ITAAC (4 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
			<ul style="list-style-type: none"> The layout of fuel storage racks in the new fuel storage vault agrees with design drawings.
3.9	<p>Components <u>and connecting piping</u> listed in Table 2.2.8-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports-<u>An inspection of components listed in Table 2.2.8-1 as ASME Code Section III will be performed.</u></p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.2.8-1 have been installed-<u>For components listed in Table 2.2.8-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u>components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</p>
3.10	<p><u>Transfer Tube piping inside the RCB is designed in accordance with ASME Code Section III requirements.</u></p>	<p><u>Analysis of the ASME Code Section III Design Reports (NCA-3550) and associated reference documents will be performed. {{DAC}}</u></p>	<p><u>ASME Code Section III Design Reports (NCA-3550) conclude that the design of Transfer Tube piping inside the RCB complies with ASME Code Section III requirements. {{DAC}}</u></p>
3.11	<p><u>Transfer Tube piping inside the RCB is reconciled in accordance with an ASME Code Section III Design Report.</u></p>	<p><u>Analyses of the piping shown as ASME Code Section III on Figure 2.2.7-1 using ASME Code Design Reports (NCA-3550) will be performed.</u></p>	<p><u>For Transfer Tube piping inside the RCB, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the system. The report(s) document results of the reconciliation analysis.</u></p>



- 3.7 Deleted.
- 3.8 Deleted.
- 3.9 SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 is designed in accordance with ASME Code Section III requirements.
- 3.10 SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.11 Pressure boundary welds in SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.12 SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 retains pressure boundary integrity at design pressure.
- 3.13 SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.3.3-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.3.3-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.16 Pressure boundary welds on components listed in Table 2.3.3-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.17 Components listed in Table 2.3.3-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.18 Components listed in Table 2.3.3-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.19 Containment isolation valves are located close to containment penetrations.
- 4.0 I&C Design Features, Displays and Controls**
- 4.1 Controls on the PICS in the MCR and the RSS perform the function listed ~~The SAHRS equipment controls are provided in the MCR as listed~~ in Table 2.3.3-2—SAHRS Equipment I&C and Electrical Design.
- 4.2 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.3.3-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.



**Table 2.3.3-3—Severe Accident Heat Removal System
ITAAC (6 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.11	Pressure boundary welds in SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 are in accordance with <u>meet non-destructive examination requirements.</u>	Inspections of pressure boundary welds verify that welding is <u>will be</u> performed in accordance with ASME Code Section III requirements.	ASME Code Section III Data Reports exist and conclude that <u>non-destructive examination of pressure boundary welding for welds in</u> SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 has been performed in <u>accordance</u> comply with ASME Code Section III <u>requirements.</u>
3.12	SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 retains pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the as-built system.	For SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.13	SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1 is <u>fabricated,</u> installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.3.3-1</u> will be performed.	For SAHRS piping shown as ASME Code Section III on Figure 2.3.3-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.14	Components listed in Table 2.3.3-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.3.3-1 comply <u>complies</u> with ASME Code Section III requirements.



**Table 2.3.3-3—Severe Accident Heat Removal System
ITAAC (6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.15	Components listed in Table 2.3.3-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.3.3-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.3.3-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.3.3-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u>
3.16	Pressure boundary welds on components listed in Table 2.3.3-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III requirements <u>non-destructive examination requirements</u> .	Inspections of pressure boundary welds other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.3.3-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements</u> .
3.17	Components listed in Table 2.3.3-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components .	For components listed as ASME Code Section III in Table 2.3.3-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.



**Table 2.3.3-3—Severe Accident Heat Removal System
ITAAC (6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.18	<p>Components listed in Table 2.3.3-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.3.3-1 as ASME Code Section III</u> will be performed.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.3.3-1 have been installed <u>For components listed in Table 2.3.3-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>
3.19	<p><u>Containment isolation valves are located close to containment penetrations.</u></p>	<p>a. <u>An analysis will be performed.</u></p> <p>b. <u>Inspection of the location of containment isolation valves will be performed. Deviations to the design location of containment isolation valves will be reconciled to the design analysis.</u></p>	<p>a. <u>An analysis concludes that the containment isolation valves listed in Table 2.3.3-1 are located as close to the containment penetrations as practical with consideration of the following:</u></p> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u> <p>b. <u>A report concludes that deviations to the design location of containment isolation valves have been reconciled.</u></p>



- 3.7 Components identified as Seismic Category I in Table 2.5.4-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.5.4-1.
- 3.8 Deleted.
- 3.9 Each EDG has a fuel oil storage tank.
- 3.10 Each EDG has a fuel oil day tank.
- 3.11 Each fuel oil transfer pump capacity is greater than EDG fuel oil consumption at the continuous rating.
- 3.12 Each EDG starting air system is capable of providing air to start the respective EDG without being recharged.
- 3.13 Check valves listed in Table 2.5.4-1 will function to change position as listed in Table 2.5.4-1 under system operating conditions.
- 3.14 Each EDG lubricating oil system provides lubrication to the engine and turbocharger wearing parts during engine operation.
- 3.15 Each EDG exhaust path has a bypass exhaust path.
- 3.16 EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5 is designed in accordance with ASME Code Section III requirements.
- 3.17 EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.18 Pressure boundary welds in EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5 ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.19 EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5 retains pressure boundary integrity at design pressure.
- 3.20 EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.21 Components listed in Table 2.5.4-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.22 Components listed in Table 2.5.4-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.23 Pressure boundary welds on components listed in Table 2.5.4-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.



3.24 Components listed in Table 2.5.4-1 as ASME Code Section III retain pressure boundary integrity at design pressure.

3.25 Components listed in Table 2.5.4-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

4.0 I&C Design Features, Alarms, Displays and Controls

4.1 Displays listed in Table 2.5.4-2 and Table 2.5.4-3 are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.5.4-2 and Table 2.5.4-3.~~

4.2 Controls on the PICS in the MCR and the RSS perform the function listed in Table 2.5.4-2. EDG equipment controls are provided in the MCR and RSS as listed in Table 2.5.4-2 and Table 2.5.4-3.

4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.5.4-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.

5.0 Electrical Considerations

5.1 The EDG control power is provided by the EUPS system from the respective division.

5.2 The components ~~identified~~ designated as Class 1E in Table 2.5.4-2 are powered from the Class 1E division listed in Table 2.5.4-2.

5.3 Each EDG output rating is greater than the analyzed loads assigned in the respective emergency power supply system (EPSS) division and loads capable of being connected to the EPSS division through the alternate feed.

5.4 Valves listed in Table 2.5.4-2 fail to the position as shown in Table 2.5.4-2 on loss of power.

6.0 Equipment and System Performance

6.1 Each EDG is started by a protection system loss of offsite power (LOOP) signal from the respective EPSS division medium voltage bus.

6.2 Each EDG is started by a protection system safety injection system (SIS) actuation signal.

6.3 Each EDG will start and connect to the respective EPSS division medium voltage bus in an undervoltage condition concurrent with a SIS actuation signal.

6.4 The EDG lubricating oil system heat exchangers listed in Table 2.5.4-1 have the capacity to transfer the design heat load to the essential service water system.

6.5 Class 1E valves listed in Table 2.5.4-2 ~~can perform the~~ will function to change position ~~as~~ listed in Table 2.5.4-1 under system operating conditions.



**Table 2.5.4-4—Emergency Diesel Generator ITAAC
(9 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.20	EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5 is <u>fabricated</u> , installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.5.4-1</u> will be performed.	For EDG piping shown as ASME Code Section III on Figure 2.5.4-1, Figure 2.5.4-2, Figure 2.5.4-3, Figure 2.5.4-4, and Figure 2.5.4-5, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.21	Components listed in Table 2.5.4-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.5.4-1 <u>comply</u> complies with ASME Code Section III requirements.



**Table 2.5.4-4—Emergency Diesel Generator ITAAC
(9 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.22	Components listed in Table 2.5.4-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.5.4-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.5.4-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.5.4-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u>
3.23	Pressure boundary welds on components listed in Table 2.5.4-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.5.4-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u>
3.24	Components listed in Table 2.5.4-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components.	For components listed as ASME Code Section III in Table 2.5.4-1, ASME Code Section III Data Reports exist <u>and</u> conclude that hydrostatic test results comply with ASME Code Section III requirements.



**Table 2.5.4-4—Emergency Diesel Generator ITAAC
(9 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.25	<p>Components listed in Table 2.5.4-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.5.4-1 as ASME Code Section III will be performed.</u></p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.5.4-1 have been installed <u>For components listed in Table 2.5.4-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</u></p>
4.1	<p>Displays listed in Table 2.5.4-2 and Table 2.5.4-3 are retrievable <u>indicated</u> in the MCR and RSS as listed in Table 2.5.4-2 and Table 2.5.4-3.</p>	<p>a. <u>Tests will be performed in the MCR using test signals.</u></p> <p>b. <u>Tests will be performed in the RSS using test signals.</u> A test will be performed.</p>	<p>a. Displays listed in Table 2.5.4-2 and Table 2.5.4-3 are indicated as being retrievable in the MCR can be retrieved in the MCR.</p> <p>b. Displays listed in Table 2.5.4-2 and Table 2.5.4-3 are indicated as being retrievable in the RSS can be retrieved in the RSS.</p>
4.2	<p><u>Controls on the PICS in the MCR and the RSS perform the function listed in Table 2.5.4-2.</u> EDG equipment controls are provided in the MCR and RSS as listed in Table 2.5.4-2 and Table 2.5.4-3.</p>	<p>a. <u>Tests will be performed using controls on the PICS in the MCR.</u></p> <p>b. <u>Tests will be performed using controls on the PICS in the RSS.</u> A test will be performed.</p>	<p>a. <u>Controls on the PICS in the MCR perform the function listed in Table 2.5.4-2 and Table 2.5.4-3</u> as being in the MCR exist in the MCR.</p> <p>b. <u>Controls on the PICS in the RSS perform the function listed in Table 2.5.4-2 and Table 2.5.4-3</u> as being in the RSS exist in the RSS.</p>



- pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.
- 3.2 Deleted.
- 3.3 Class 1E valves and dampers ~~Equipment~~ listed in Tables 2.6.8-1 and 2.6.8-2 will can perform the functions to change position as listed in Tables 2.6.8-1 and 2.6.8-2 under system operating conditions.
- 3.4 Components identified as Seismic Category I in Tables 2.6.8-1 and 2.6.8-2 can withstand seismic design basis loads without a loss of the function listed in Tables 2.6.8-1 and 2.6.8-2.
- 3.5 Components listed in Table 2.6.8-2 as ASME AG-1 Code are designed in accordance with ASME AG-1 Code requirements.
- 3.6 Components listed in Table 2.6.8-2 as ASME AG-1 Code are fabricated in accordance with ASME AG-1 Code requirements, including welding requirements.
- 3.7 Components listed in Table 2.6.8-2 as ASME AG-1 Code are installed, inspected and tested in accordance with ASME AG-1 Code requirements.
- 3.8 Components listed in Table 2.6.8-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.9 Components listed in Table 2.6.8-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.10 Pressure boundary welds on components listed in Table 2.6.8-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.11 Components listed in Table 2.6.8-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.12 Components listed in Table 2.6.8-2 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.13 Containment isolation valves are located close to containment penetrations.
- 3.14 CBVS piping between containment isolation valves is reconciled in accordance with an ASME Code Section III Design Report.
- 3.15 CBVS piping between containment isolation valves is fabricated, installed and inspected in accordance with ASME Code Section III requirements.
- 3.16 Pressure boundary welds in CBVS piping between containment isolation valves meet ASME Code Section III non-destructive examination requirements.
- 3.17 CBVS piping between containment isolation valves retains pressure boundary integrity at design pressure.



**Table 2.6.8-4—Containment Building Ventilation System
ITAAC (6 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.6	Components listed in Table 2.6.8-2 as ASME AG-1 Code are fabricated in accordance with ASME AG-1 Code requirements, including welding requirements.	Inspections will be performed to verify components are fabricated in accordance with ASME AG-1 Code requirements.	For components listed as ASME AG-1 Code in Table 2.6.8-2, reports exist and conclude that the component <u>is fabricated in accordance with</u> meets -ASME AG-1 Code requirements, including welding requirements.
3.7	Components listed in Table 2.6.8-2 as ASME AG-1 Code are <u>installed</u> , inspected and tested in accordance with ASME AG-1 Code requirements.	Inspections and tests will be performed on the components.	For components listed as ASME AG-1 Code in Table 2.6.8-2, reports exist and conclude that the component meets ASME AG-1 Code inspection and testing requirements.
3.8	Components listed in Table 2.6.8-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.6.8-1 comply <u>complies</u> with ASME Code Section III requirements.



**Table 2.6.8-4—Containment Building Ventilation System
ITAAC (6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.9	<p>Components listed in Table 2.6.8-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.6.8-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.6.8-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.6.8-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u></p>
3.10	<p>Pressure boundary welds on components listed in Table 2.6.8-1 as ASME Code Section III are in accordance with meet ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p>	<p>For components listed as ASME Code Section III in Table 2.6.8-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u></p>
3.11	<p>Components listed in Table 2.6.8-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p>	<p>Hydrostatic tests will be performed on the components.</p>	<p>For components listed as ASME Code Section III in Table 2.6.8-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</p>



**Table 2.6.8-4—Containment Building Ventilation System
ITAAC (6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.12	<p>Components listed in Table 2.6.8-2 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.6.8-12 as ASME Code Section III</u> will be performed.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.6.8-2 have been installed <u>For components listed in Table 2.6.8-12 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</p>
<u>3.13</u>	<p>Containment isolation valves are located close to containment penetrations.</p>	<p>a. An analysis will be performed.</p> <p>b. <u>Inspection of the location of containment isolation valves will be performed. Deviations to the design location of containment isolation valves will be reconciled to the design analysis.</u></p>	<p>a. <u>An analysis concludes that the containment isolation valves listed in Table 2.6.8-1 are located as close to the containment penetrations as practical with consideration of the following:</u></p> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • Valve maintenance. <p>b. <u>A report concludes that deviations to the design location of containment isolation valves have been reconciled.</u></p>



3.0 Mechanical Design Features

- 3.1 Pumps and valves listed in Table 2.7.1-1 will be functionally designed and qualified such that each pump and valve is capable of performing its intended function for a full range of system differential pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.
- 3.2 Check valves listed in Table 2.7.1-1 will function to change position as listed in Table 2.7.1-1 under system operating conditions.
- 3.3 Deleted.
- 3.4 Components identified as Seismic Category I in Table 2.7.1-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.7.1-1.
- 3.5 Deleted.
- 3.6 Deleted.
- 3.7 Deleted.
- 3.8 Deleted.
- 3.9 CCWS piping shown as ASME Code Section III on Figure 2.7.1-1 is designed in accordance with ASME Code Section III requirements.
- 3.10 CCWS piping shown as ASME Code Section III on Figure 2.7.1-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.11 Pressure boundary welds in CCWS piping shown as ASME Code Section III on Figure 2.7.1-1 ~~are in accordance with~~ meet ASME Code Section III.
- 3.12 CCWS piping shown as ASME Code Section III on Figure 2.7.1-1 retains pressure boundary integrity at design pressure.
- 3.13 CCWS piping shown as ASME Code Section III on Figure 2.7.1-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.7.1-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.7.1-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.16 Pressure boundary welds on components listed in Table 2.7.1-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.17 Components listed in Table 2.7.1-1 as ASME Code Section III retain pressure boundary integrity at design pressure.



- 3.18 Components listed in Table 2.7.1-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.19 Containment isolation valves are located close to containment penetrations.
- #### 4.0 I&C Design Features, Displays and Controls
- 4.1 Displays listed in Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.7.1-2.~~
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The CCWS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.7.1-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.7.1-2 responds to the state requested ~~by a test signal and provides~~ drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.
- 4.4 An interlock for the CCWS low flow condition automatically opens the low head safety injection (LHSI)/residual heat removal (RHR) heat exchanger (HX) inlet valve.
- 4.5 An interlock for the CCWS surge tank level of MIN3 automatically isolates the associated train common header switchover valves.
- 4.6 An interlock for the CCWS surge tank level of MIN4 automatically trips the associated CCWS pump and unlocks the common header switchover function to allow restoration of flow to the common users.
- 4.7 An interlock for the CCWS low surge tank level of MIN2 and a flow rate difference between the supply and return ~~the supply flow rate to from~~ the Nuclear Auxiliary Building (NAB) and the Radioactive Waste Building (RWB) is greater than the flow rate from NAB and RWB automatically isolates the non-safety-related branch.
- 4.8 ~~Loss~~ An interlock for the loss of one CCWS train initiates an automatic switchover to allow cooling of the common ‘a’ and/or ‘b’ headers.
- 4.9 Deleted.
- 4.10 An interlock for the CCWS train separation to RCP thermal barriers requires CIVs associated with one common header to be closed before the other common header CIVs can be opened. ~~CCWS train separation to RCP thermal barriers is maintained by interlocks provided on the supply and return thermal barrier containment isolation valves. The interlocks require that CIVs associated with one common header be closed before the other common header CIVs can be opened.~~
- 4.11 An interlock for the ~~Manual or automatic~~ actuation of a CCWS pump, either automatically or manually ~~automatically~~ actuates the corresponding ESWS pump.



Table 2.7.1-3—Component Cooling Water System ITAAC (10 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.13	CCWS piping shown as ASME Code Section III on Figure 2.7.1-1 is <u>fabricated</u> , installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.7.1-1</u> will be performed.	For as-built CCWS piping shown as ASME Code Section III on Figure 2.7.1-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.14	Components listed in Table 2.7.1-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.7.1-1 comply-complies with ASME Code Section III requirements.



Table 2.7.1-3—Component Cooling Water System ITAAC (10 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.15	Components listed in Table 2.7.1-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.7.1-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u>	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.7.1-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.7.1-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u>
3.16	Pressure boundary welds on components listed in Table 2.7.1-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.7.1-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply welding has been performed in accordance</u> with ASME Code Section III <u>requirements.</u>
3.17	Components listed in Table 2.7.1-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components.	For components listed as ASME Code Section III in Table 2.7.1-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.



Table 2.7.1-3—Component Cooling Water System ITAAC (10 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.18	<p>Components listed in Table 2.7.1-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.7.1-1 as ASME Code Section III will be performed.</u></p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.7.1-1 have been installed <u>For components listed in Table 2.7.1-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</u></p>
3.19	<p><u>Containment isolation valves are located close to containment penetrations.</u></p>	<p>a. <u>An analysis will be performed.</u></p> <p>b. <u>Inspection of the location of containment isolation valves will be performed. Deviations to the design location of containment isolation valves will be reconciled to the design analysis.</u></p>	<p>a. <u>An analysis concludes that the containment isolation valves listed in Table 2.7.1-1 are located as close to the containment penetrations as practical with consideration of the following:</u></p> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u> <p>b. <u>A report concludes that deviations to the design location of containment isolation valves have been reconciled.</u></p>



- 3.9 SCWS piping shown as ASME Code Section III on Figure 2.7.2-1 is designed in accordance with ASME Code Section III requirements.
- 3.10 SCWS piping shown as ASME Code Section III on Figure 2.7.2-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.11 Pressure boundary welds in SCWS piping shown as ASME Code Section III on Figure 2.7.2-1 ~~are in accordance with~~ meet ASME Code Section III.
- 3.12 SCWS piping shown as ASME Code Section III on Figure 2.7.2-1 retains pressure boundary integrity at design pressure.
- 3.13 SCWS piping shown as ASME Code Section III on Figure 2.7.2-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.7.2-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.15 Components listed in Table 2.7.2-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.16 Pressure boundary welds on components listed in Table 2.7.2-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.17 Components listed in Table 2.7.2-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.18 Components listed in Table 2.7.2-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

4.0 I&C Design Features, Displays and Controls

- 4.1 Displays listed in Table 2.7.2-2—Safety Chilled Water System Equipment I&C and Electrical Design are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.7.2-2~~.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The SCWS equipment controls are provided in the MCR and the RSS as listed in Table 2.7.2-2.~~
- 4.3 Deleted
- 4.4 ~~The Interlocks for the SCWS initiate~~ has the following: ~~interlocks with Division 1 and 2 or Division 3 and 4 cross-tied~~ The With Division 1 and 2 or Division 3 and 4 cross-tied, the non-running division chiller and pump(s) automatically start if the running division chiller or pumps(s) trip.

5.0 Electrical Power Design Features

- 5.1 The components designated as Class 1E in Table 2.7.2-2 are powered from Class 1E division as listed in Table 2.7.2-2 in a normal or alternate feed condition.



Table 2.7.2-3—Safety Chilled Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.14	Components listed in Table 2.7.2-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections - <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.7.2-1 comply <u>complies</u> with ASME Code Section III requirements.
3.15	Components listed in Table 2.7.2-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis - <u>Analyses</u> of ASME Code Design Reports (NCA-3550) for components listed as <u>ASME Code Section III, other than RPV internals, in Table 2.7.2-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.7.2-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.7.2-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u>
3.16	Pressure boundary welds on components listed in Table 2.7.2-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.7.2-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of</u> pressure boundary <u>welds</u> <u>comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u>



Table 2.7.2-3—Safety Chilled Water System ITAAC
(7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.17	Components listed in Table 2.7.2-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components.	For components listed as ASME Code Section III in Table 2.7.2-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.18	Components listed in Table 2.7.2-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.7.2-1 as ASME Code Section III will be performed.</u>	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.7.2-1 have been installed <u>For components listed in Table 2.7.2-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the pipng is components are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</u>
4.1	Displays <u>listed in Table 2.7.2-2 are indicated</u> exist or can be retrieved in the MCR and RSS as identified in Table 2.7.2-2.	<p>a. <u>Tests will be performed in the MCR using test signals.</u></p> <p>b. <u>Tests will be performed in the RSS using test signals.</u> Tests will be performed for the retrievability of the displays in the MCR or the RSS as listed in Table 2.7.2-2.</p>	<p>a. The d <u>Displays listed in Table 2.7.2-2 are indicated as being retrieved in the</u> MCR can be retrieved in the MCR.</p> <p>b. The d <u>Displays listed in Table 2.7.2-2 are indicated as being retrieved in the</u> RSS can be retrieved in the RSS.</p>
4.2	<u>Controls on the PICS in the MCR and the RSS perform the function listed</u> Controls exist in the MCR and the RSS as identified	a. <u>Tests will be performed using controls on the PICS in the MCR.</u>	a. The e <u>Controls on the PICS in the MCR perform the function listed in Table 2.7.2-2 as being in the</u> MCR exist in the MCR.



2.7.5 Fire Water Distribution System

1.0 Description

The fire water distribution system (FWDS) is non-safety related, except for the FWDS containment isolation valves and associated piping which are safety-related. The FWDS is comprised of the following fire water distribution subsystems:

- The FWDS conventional area, which consists of the fire water storage tanks, fire pumps, pump structure, and underground fire main loop.
- The FWDS inside Nuclear Island consists of supply headers and the standpipe and hose system.

The FWDS provides the following safety-related functions:

- The FWDS provides the safety-related function of providing containment isolation of the Reactor Building (RB).

The FWDS provides the following non-safety-related functions:

- The FWDS inside Nuclear Island is an alternate source of makeup water for the spent fuel spray system during a severe accident event.
- The FWDS inside Nuclear Island is an alternate source of makeup water for component cooling water system (CCWS) post seismic event.

2.0 Arrangement

- 2.1 The location of ~~safety-related~~the FWDS equipment is as listed in Table 2.7.5-1—Fire Water Distribution System Equipment Mechanical Design.

3.0 Mechanical Design Features

- 3.1 Valves listed in Table 2.7.5-1 will be functionally designed and qualified such that each valve is capable of performing its intended function for a full range of system differential pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.
- 3.2 Components identified as Seismic Category I in Table 2.7.5-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.7.5-1.
- 3.3 Components listed in Table 2.7.5-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.4 Components listed in Table 2.7.5-1 as ASME Code Section III are ~~fabricated~~reconciled in accordance with ASME Code Section III design requirements.



- 3.5 Pressure boundary welds on components listed in Table 2.7.5-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.6 Components listed in Table 2.7.5-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.
- 3.7 Components listed in Table 2.7.5-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.8 Containment isolation valves are located close to containment penetrations.
- 3.9 FWDS piping between containment isolation valves is reconciled in accordance with an ASME Code Section III Design Report.
- 3.10 FWDS piping between containment isolation valves is fabricated, installed and inspected in accordance with ASME Code Section III requirements.
- 3.11 Pressure boundary welds in FWDS piping between containment isolation valves meet ASME Code Section III non-destructive examination requirements.
- 3.12 FWDS piping between containment isolation valves retains pressure boundary integrity at design pressure.
- 4.0 I&C Design Features, Displays and Controls**
- 4.1 Displays listed in Table 2.7.5-2—Fire Water Distribution System Equipment I&C and Electrical Design are ~~retrievable indicated~~ in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.7.5-2.~~
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The FWDS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.7.5-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.7.5-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.
- 4.4 The ~~as-built~~ location of the fire water distribution system equipment is consistent with the post-fire safe shutdown analysis.
- 5.0 Electrical Power Design Features**
- 5.1 The components designated as Class 1E in Table 2.7.5-2 are powered from the Class 1E division as listed in Table 2.7.5-2 in a normal or alternate feed condition.
- 5.2 Valves listed in Table 2.7.5-2 fail as-is on loss of power.



Table 2.7.5-3—Fire Water Distribution System ITAAC (5 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
		b. Inspections will be performed of the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.7.5-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the <u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u> .	b. Inspection reports exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.7.5-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the <u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u> .
3.3	Components listed in Table 2.7.5-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.7.5-1 comply <u>complies</u> with ASME Code Section III requirements.



Table 2.7.5-3—Fire Water Distribution System ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.4	<p>Components listed in Table 2.7.5-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.7.5-1</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.7.5-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.7.5-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u></p>
3.5	<p>Pressure boundary welds on components listed in Table 2.7.5-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p>	<p>For components listed as ASME Code Section III in Table 2.7.5-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u></p>
3.6	<p>Components listed in Table 2.7.5-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p>	<p>Hydrostatic tests will be performed on the components.</p>	<p>For components listed as ASME Code Section III in Table 2.7.5-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</p>



Table 2.7.5-3—Fire Water Distribution System ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.7	<p>Components listed in Table 2.7.5-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.7.5-1 as ASME Code Section III</u> will be performed.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.7.5-1 have been installed <u>For components listed in Table 2.7.5-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> <u>components are fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>
3.8	<p><u>Containment isolation valves are located close to containment penetrations.</u></p>	<p>a. <u>An analysis will be performed.</u></p> <p>b. <u>Inspection of the location of containment isolation valves will be performed. Deviations to the design location of containment isolation valves will be reconciled to the design analysis.</u></p>	<p>a. <u>An analysis concludes that the containment isolation valves listed in Table 2.7.5-1 are located as close to the containment penetrations as practical with consideration of the following:</u></p> <ul style="list-style-type: none"> • <u>Access for inspection of welds.</u> • <u>Containment leak testing.</u> • <u>Replacement.</u> • <u>Valve maintenance.</u> <p>b. <u>A report concludes that deviations to the design location of containment isolation valves have been reconciled.</u></p>



- 3.6 Components listed in Table 2.7.11-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.7 Pressure boundary welds on components listed in Table 2.7.11-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examinations requirements.
- 3.8 Components listed in Table 2.7.11-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.9 Deleted.
- 3.10 Deleted.
- 3.11 Deleted.
- 3.12 ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 is designed in accordance with ASME Code Section III requirements.
- 3.13 ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.14 Pressure boundary welds in ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 ~~are in accordance with~~ meet ASME Code Section III.
- 3.15 ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 retains pressure boundary integrity at design pressure.
- 3.16 ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.17 Components listed in Table 2.7.11-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.18 The UHS fans are capable of withstanding the effects of tornado including differential pressure effects, overspeed, and the impact of differential pressure effects on other equipment located within the cooling tower structure (e.g., capability to function, potential to become missile/debris hazard).
- 4.0 I&C Design Features, Displays and Controls**
- 4.1 Displays listed in Table 2.7.11-2— Essential Service Water System Equipment I&C and Electrical Design are ~~retrievable~~ indicated in the main control room (MCR) and the remote shutdown station (RSS) ~~as listed in Table 2.7.11-2.~~
- 4.2 ~~The ESWS equipment controls are provided in the MCR and the RSS as~~ Controls on the PICS in the MCR and the RSS perform the function listed in Table 2.7.11-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.7.11-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the



**Table 2.7.11-3—Essential Service Water System ITAAC
(10 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.4	Components identified as Seismic Category I in Table 2.7.11-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.7.11-1.	<p>a. Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Table 2.7.11-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.</p> <p>b. Inspections will be performed of the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.7.11-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the<u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>	<p>a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.7.11-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.7.11-1 including the time required to perform the listed function.</p> <p>b. Inspection reports exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.7.11-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the<u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>
3.5	Components listed in Table 2.7.11-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.7.11-1 comply <u>complies</u> with ASME Code Section III requirements.



**Table 2.7.11-3—Essential Service Water System ITAAC
(10 Sheets)**

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.6	<p>Components listed in Table 2.7.11-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.8.2-1 2.7.11-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u></p> <p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.8.2-1 2.7.11-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.7.11-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u></p>
3.7	<p>Pressure boundary welds on components listed in Table 2.7.11-1 as ASME Code Section III are in accordance with meet ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p> <p><u>For components listed as ASME Code Section III in Table 2.7.11-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that non-destructive examination of pressure boundary welds comply welding has been performed in accordance with ASME Code Section III requirements.</u></p>
3.8	<p>Components listed in Table 2.7.11-1 as ASME Code Section III retain pressure boundary integrity at design pressure.</p>	<p>Hydrostatic tests will be performed on the components.</p> <p><u>For components listed as ASME Code Section III in Table 2.7.11-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</u></p>
3.9	Deleted.	Deleted.



**Table 2.7.11-3—Essential Service Water System ITAAC
(10 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.15	ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 retains pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the as-built system.	For ESWS piping shown as ASME Code Section III on Figure 2.7.11-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.16	ESWS piping shown as ASME Code Section III on Figure 2.7.11-1 is <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.7.11-1</u> will be performed.	For ESWS piping shown as ASME Code Section III on Figure 2.7.11-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.17	Components listed in Table 2.7.11-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.7.11-1 as ASME Code Section III</u> will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.7.11-1 have been installed <u>For components listed in Table 2.7.11-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.



- 3.5 Components listed in Table 2.8.2-1 as ASME Code Section III are ~~reconciled~~fabricated in accordance with ASME Code Section III design requirements.
- 3.6 Pressure boundary welds on components listed in Table 2.8.2-1 as ASME Code Section III ~~are in accordance with~~meet ASME Code Section III non-destructive examination requirements.
- 3.7 Components listed in Table 2.8.2-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.8 MSS piping shown as ASME Code Section III on Figure 2.8.2-1 ~~are~~is designed in accordance with ASME Code Section III requirements.
- 3.9 MSS piping shown as ASME Code Section III on Figure 2.8.2-1 ~~are~~is installed reconciled in accordance with an ASME Code Section III Design Report.
- 3.10 Pressure boundary welds in MSS piping shown as ASME Code Section III on Figure 2.8.2-1 ~~are in accordance with~~meet ASME Code Section III requirements.
- 3.11 MSS piping shown as ASME Code Section III on Figure 2.8.2-1 ~~retains~~is pressure boundary integrity at design pressure.
- 3.12 MSS piping shown as ASME Code Section III on Figure 2.8.2-1 ~~are~~is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.13 Components listed in Table 2.8.2-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.8.2-2 ~~—MSS Equipment I&C and Electrical Design~~ are retrievable indicated in the ~~main control room (MCR)~~ and ~~the remote shutdown station (RSS) as listed in Table 2.8.2-2.~~
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The MSS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.8.2-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.8.2-2 responds to the state requested ~~by a test signal and provides~~ drive monitoring signals back to the PACS module. ~~The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.~~
- 5.0 Electrical Power Design Features**
- 5.1 The components designated as Class 1E in Table 2.8.2-2 are powered from the Class 1E division as listed in Table 2.8.2-2 in a normal or alternate feed condition.
- 5.2 Each main steam relief isolation valve fails closed on loss of ~~electric power,~~ to the valve actuator.



Table 2.8.2-3—Main Steam System ITAAC (7 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.3	Components identified as Seismic Category I in Table 2.8.2-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.2-1.	<p>a. Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Table 2.8.2-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.</p> <p>b. Inspections will be performed of the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.2-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the <u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>	<p>a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.2-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.2-1 including the time required to perform the listed function.</p> <p>b. Inspection reports exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.2-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the <u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>
3.4	Components listed in Table 2.8.2-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.8.2-1 <u>complies</u> with ASME Code Section III requirements.

Table 2.8.2-3—Main Steam System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.5	Components listed in Table 2.8.2-1 as ASME Code Section III are reconciled <u>fabricated</u> in accordance with ASME Code Section III requirements.	An analysis- <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III,</u> other than RPV internals; in Table 2.8.2-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	For components listed as <u>ASME Code Section III,</u> other than RPV internals; in Table 2.8.2-1, ASME Code Data Reports (N-5) conclude that <u>design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.8.2-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.
3.6	Pressure boundary welds on components listed in Table 2.8.2-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds, other than RPV internals; will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.8.2-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u>
3.7	Components listed in Table 2.8.2-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components.	For components listed as ASME Code Section III in Table 2.8.2-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.



Table 2.8.2-3—Main Steam System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.12	MSS piping shown as ASME Code Section III on Figure 2.8.2-1 is <u>fabricated</u> , installed, and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.8.2-1</u> will be performed.	For MSS piping shown as ASME Code Section III on Figure 2.8.2-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are <u>fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.13	Components listed in Table 2.8.2-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.8.2-1 as ASME Code Section III</u> will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.8.2-1 have been installed <u>For components listed in Table 2.8.2-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.
4.1	Displays <u>listed in Table 2.8.2-2 are indicated</u> exist or can be retrieved in the MCR and the RSS as identified in Table 2.8.2-2.	a. <u>Tests will be performed in the MCR using test signals.</u>	a. The d Displays listed in Table 2.8.2-2 <u>are indicated as being retrieved in the MCR</u> can be retrieved in the MCR.



- 3.5 Components listed in Table 2.8.6-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.6 Components listed in Table 2.8.6-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.
- 3.7 Pressure boundary welds on components listed in Table 2.8.6-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.8 Components listed in Table 2.8.6-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.9 MFWS piping shown as ASME Code Section III on Figure 2.8.6-1 is designed in accordance with ASME Code Section III requirements.
- 3.10 MFWS piping shown as ASME Code Section III on Figure 2.8.6-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.11 Pressure boundary welds in MFWS piping shown as ASME Code Section III on Figure 2.8.6-1 ~~are in accordance with~~ meet ASME Code Section III requirements.
- 3.12 MFWS piping shown as ASME Code Section III on Figure 2.8.6-1 retains pressure boundary integrity at design pressure.
- 3.13 MFWS piping shown as ASME Code Section III on Figure 2.8.6-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Components listed in Table 2.8.6-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 4.0 Instrumentation and Control (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.8.6-2—~~MFWS Equipment I&C and Electrical Design~~ are ~~retrievable~~ indicated in the ~~main control room (MCR)~~ as listed in Table 2.8.6-2.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The MFWS equipment controls are provided in the MCR as~~ listed in Table 2.8.6-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.8.6-2 responds to the state requested ~~by a test signal and provides~~ drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.
- 5.0 Electrical Power Design Features**
- 5.1 The components designated as Class 1E in Table 2.8.6-2 are powered from the Class 1E division as listed in Table 2.8.6-2 in a normal or alternate feed condition.
- 5.2 ~~The main feedwater full load isolation valves (MFWFLIVs)~~ fail closed on loss of hydraulic pressure in each redundant dump line, ~~to the valve actuator.~~



Table 2.8.6-3— Main Feedwater System ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.4	<p>Components identified as Seismic Category I in Table 2.8.6-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.6-1.</p>	<p>a. Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Table 2.8.6-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.</p> <p>b. Inspections will be performed of the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.6-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the <u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements.</u></p>	<p>a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.6-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.6-1 including the time required to perform the listed function.</p> <p>b. Inspection reports exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.6-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the <u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements.</u></p>
3.5	<p>Components listed in Table 2.8.6-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.</p>	<p>Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.</p>	<p>ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.8.6-1 comply <u>complies</u> with ASME Code Section III requirements.</p>



Table 2.8.6-3— Main Feedwater System ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.6	Components listed in Table 2.8.6-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis- <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.8.6-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u>	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.8.6-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.8.6-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u>
3.7	Pressure boundary welds on components listed in Table 2.8.6-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.8.6-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements</u> .
3.8	Components listed in Table 2.8.6-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components .	For components listed as ASME Code Section III in Table 2.8.6-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.



Table 2.8.6-3— Main Feedwater System ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.13	MFWS piping shown as ASME Code Section III on Figure 2.8.6-1 is <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.8.6-1</u> will be performed.	For MFWS piping shown as ASME Code Section III on Figure 2.8.6-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.14	Components listed in Table 2.8.6-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.8.6-1 as ASME Code Section III</u> will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.8.6-1 have been installed <u>For components listed in Table 2.8.6-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the</u> piping is <u>components are fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.
4.1	Displays <u>listed in Table 2.8.6-2 are indicated exist or can be retrieved</u> in the MCR as identified in Table 2.8.6-2.	Tests will be performed <u>in the MCR using test signals, for the retrievability of the displays in the MCR as listed in Table 2.8.6-2.</u>	The d Displays listed in Table 2.8.6-2 <u>are indicated as being retrieved in the MCR can be retrieved</u> in the MCR.



2.8.7 Steam Generator Blowdown System

1.0 Description

The steam generator blowdown system (SGBS) is a non-safety-related system with safety-related portions. It assists in maintaining the chemical characteristics of the secondary water within permissible limits. The SGBS is safety related from its connections to the steam generators to the outer containment isolation valves. The remaining portion of the blowdown system downstream of the outer containment isolation valves is non-safety-related.

The SGBS provides the following safety-related functions:

- Containment isolation.
- SG blowdown isolation (emergency feedwater (EFW) actuation signal, or high main steam activity signal with a partial cooldown signal, or high SG level signal with a partial cooldown signal).

The SGBS provides the following non-safety-related functions:

- SG blowdown isolation (high SGBS blowdown activity signal with a partial cooldown).

2.0 Arrangement

2.1 The functional arrangement of the SGBS is as shown on Figure 2.8.7-1—SGBS Functional Arrangement.

2.2 The location of the SGBS equipment is as listed in Table 2.8.7-1—SGBS Equipment Mechanical Design.

3.0 Mechanical Design Features

3.1 Valves listed in Table 2.8.7-1 will be functionally designed and qualified such that each valve is capable of performing its intended function for a full range of system differential pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.

3.2 Deleted.

3.3 Components identified as Seismic Category I in Table 2.8.7-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.7-1.

3.4 Components listed in Table 2.8.7-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.

3.5 Components listed in Table 2.8.7-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.



- 3.6 Pressure boundary welds on components listed in Table 2.8.7-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.7 Components listed in Table 2.8.7-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.8 SGBS piping shown as ASME Code Section III on Figure 2.8.7-1 is designed in accordance with ASME Code Section III requirements.
- 3.9 SGBS piping shown as ASME Code Section III on Figure 2.8.7-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.
- 3.10 Pressure boundary welds in SGBS piping shown as ASME Code Section III on Figure 2.8.7-1 ~~are in accordance with~~ meet ASME Code Section III requirements.
- 3.11 SGBS piping shown as ASME Code Section III on Figure 2.8.7-1 retains pressure boundary integrity at design pressure.
- 3.12 SGBS piping shown as ASME Code Section III on Figure 2.8.7-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.13 Components listed in Table 2.8.7-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.14 Containment isolation valves are located close to containment penetrations.
- 4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls**
- 4.1 Displays listed in Table 2.8.7-2—~~SGBS Equipment I&C and Electrical Design~~ are retrievable indicated in the ~~main control room (MCR)~~ and ~~the remote shutdown station (RSS)~~ as listed in Table 2.8.7-2.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~SGBS equipment controls are provided in the MCR and the RSS as~~ listed in Table 2.8.7-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 2.8.7-2 responds to the state requested ~~by a test signal~~ and provides drive monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.
- 4.4 Interlocks for the SGBS blowdown isolation valves listed in Table 2.8.7-2 result in closure ~~for~~ of the affected SG under the following signals:
- EFW actuation signal, ~~or~~
 - High main steam activity signal with a partial cooldown signal, ~~or~~;
 - High SG level signal with a partial cooldown signal, ~~or~~



**Table 2.8.7-3—Steam Generator Blowdown System ITAAC
(6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.3	<p>Components identified as Seismic Category I in Table 2.8.7-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.7-1.</p>	<p>a. Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Table 2.8.7-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.</p> <p>b. Inspections will be performed of the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.7-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the<u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>	<p>a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.7-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.8.7-1 including the time required to perform the listed function.</p> <p>b. Inspection reports exist and conclude that the Seismic Category I components identified <u>as Seismic Category I</u> in Table 2.8.7-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the<u>per</u> seismic qualification reports (SQDP, EQDP, or analyses) <u>requirements</u>.</p>
3.4	<p>Components listed in Table 2.8.7-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.</p>	<p>Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.</p>	<p>ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.8.7-1 comply <u>complies</u> with ASME Code Section III requirements.</p>



**Table 2.8.7-3—Steam Generator Blowdown System ITAAC
(6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.5	<p>Components listed in Table 2.8.7-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.</p>	<p>An analysis- <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.8.7-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u></p>	<p><u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.8.7-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.8.7-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u></p>
3.6	<p>Pressure boundary welds on components listed in Table 2.8.7-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.</p>	<p>Inspections of pressure boundary welds, other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.</p>	<p>For components listed as ASME Code Section III in Table 2.8.7-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements.</u></p>
3.7	<p>Components listed in Table 2.8.7-1 as ASME Code Section III retain pressure boundary integrity at design pressure.</p>	<p>Hydrostatic tests will be performed on the components.</p>	<p>For components listed as ASME Code Section III in Table 2.8.7-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.</p>



**Table 2.8.7-3—Steam Generator Blowdown System ITAAC
(6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.12	<p>SGBS piping shown as ASME Code Section III on Figure 2.8.7-1 is <u>fabricated</u>, installed, and inspected in accordance with ASME Code Section III requirements.</p>	<p>An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 2.8.7-1</u> will be performed.</p>	<p>For as-built SGBS piping shown as ASME Code Section III on Figure 2.8.7-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u>N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.</p>
3.13	<p>Components listed in Table 2.8.7-1 as ASME Code Section III are <u>fabricated</u>, installed, <u>and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.8.7-1 as ASME Code Section III</u> will be performed.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.8.7-1 have been installed <u>For components listed in Table 2.8.7-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.</p>



2.9.3 Gaseous Waste Processing System

1.0 Description

The gaseous waste processing system (GWPS) is a non-safety system that utilizes delay beds containing activated carbon to reduce the activity of the waste gas before release to the Nuclear Auxiliary Building for additional processing and release through the vent stack. A high-radiation signal from the activity monitor downstream of the delay beds activates an alarm in the main control room (MCR) and terminates gaseous waste releases.

The only safety-related function of the GWPS is containment isolation.

2.0 Arrangement

2.1 The functional arrangement of the GWPS is as shown on Figure 2.9.3-1—Gaseous Waste Processing System Functional Arrangement.

2.2 The location of the GWPS equipment is as listed in Table 2.9.3-1—GWPS Equipment Mechanical Design.

3.0 Mechanical Design Features

3.1 Components identified as Seismic Category I in Table 2.9.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.9.3-1.

3.2 GWPS piping shown as ASME Code Section III on Figure 2.9.3-1 is designed in accordance with ASME Code Section III requirements.

3.3 GWPS piping shown as ASME Code Section III on Figure 2.9.3-1 is ~~installed~~ reconciled in accordance with an ASME Code Section III Design Report.

3.4 Pressure boundary welds in GWPS piping shown as ASME Code Section III on Figure 2.9.3-1 ~~are in accordance with~~ meet ASME Code Section III.

3.5 GWPS piping shown as ASME Code Section III on Figure 2.9.3-1 retains pressure boundary integrity at design pressure.

3.6 GWPS piping shown as ASME Code Section III on Figure 2.9.3-1 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

3.7 Components listed in Table 2.9.3-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.

3.8 Components listed in Table 2.9.3-1 as ASME Code Section III are ~~fabricated~~ reconciled in accordance with ASME Code Section III design requirements.

3.9 Pressure boundary welds on components listed in Table 2.9.3-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.



3.10 Components listed in Table 2.9.3-1 as ASME Code Section III retain pressure boundary integrity at design pressure.

3.11 Components listed in Table 2.9.3-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

3.12 Valves listed in Table 2.9.3-1 will be functionally designed and qualified such that each valve is capable of performing its intended function for a full range of system differential pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.

3.13 Containment isolation valves are located close to containment penetrations.

4.0 Instrumentation and Controls (I&C) Design Features, Displays, and Controls

4.1 Displays listed in Table 2.9.3-2—GWPS Equipment I&C and Electrical Design are retrievable indicated in the main control room (MCR) ~~as listed in Table 2.9.3-2.~~

4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The GWPS equipment controls are provided in the MCR as~~ listed in Table 2.9.3-2.

5.0 Electrical Power Design Features

5.1 The components designated as Class 1E in Table 2.9.3-2 are powered from the Class 1E division as listed in Table 2.9.3-2 in a normal or alternate feed condition.

6.0 Environmental Qualifications

6.1 Components designated as harsh environment in Table 2.8.7-2, ~~that are designated as harsh environment,~~ will perform the function listed in Table 2.8.7-1 under normal environmental conditions, containment test conditions, anticipated operational occurrences, and accident and post-accident environmental conditions. ~~in the environments that exist during and following design basis events.~~

7.0 Equipment and System Performance

7.1 The GWPS processing equipment contains delay beds listed in Table 2.9.3-1 filled with ~~the proper types and amounts of~~ activated charcoal.

7.2 The GWPS discharge valve closes upon receipt of a high-radiation signal from the activity monitor downstream of the delay beds.

7.3 Containment isolation valves listed in Table 2.9.3-1 close within the containment isolation response time following initiation of a containment isolation signal.

8.0 Inspections, Tests, Analyses, and Acceptance Criteria

Table 2.9.3-3 lists the gaseous waste processing system ITAAC.



**Table 2.9.3-3—Gaseous Waste Processing System ITAAC
(6 Sheets)**

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.7	Components listed in Table 2.9.3-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections <u>Analysis</u> of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 2.9.3-1 comply <u>complies</u> with ASME Code Section III requirements.
3.8	Components listed in Table 2.9.3-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 2.9.3-</u> will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 2.9.3-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis.</u> ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 2.9.3-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.
3.9	Pressure boundary welds on components listed in Table 2.9.3-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds other than RPV internals, will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 2.9.3-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements</u> .



**Table 2.9.3-3—Gaseous Waste Processing System ITAAC
(6 Sheets)**

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.10	Components listed in Table 2.9.3-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components.	For components listed as ASME Code Section III in Table 2.9.3-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.
3.11	Components listed in Table 2.9.3-1 as ASME Code Section III are <u>fabricated, installed, and inspected</u> in accordance with ASME Code Section III requirements.	An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 2.9.3-1 as ASME Code Section III</u> will be performed.	ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 2.9.3-1 have been installed <u>For components listed in Table 2.9.3-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is</u> components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
3.12	Valves listed in Table 2.9.3-1 will be functionally designed and qualified such that each valve is capable of performing its intended function for a full range of system differential pressure and flow, ambient temperatures, and available voltage (as applicable) under conditions ranging from normal operating to design-basis accident conditions.	Tests or type tests of the valves listed in Table 2.9.3-1 will be performed <u>conducted to demonstrate that the pumps and valves function under conditions ranging from normal operating to design-basis accident conditions.</u>	A test report exists and concludes that the valves listed in Table 2.9.3-1 function under conditions ranging from normal operating to design-basis accident conditions.



- 3.9 Pressure boundary welds in containment isolation piping shown as ASME Code Section III on Figure 3.5-1 ~~are in accordance with~~ meet ASME Code Section III.
- 3.10 Containment isolation piping shown as ASME Code Section III on Figure 3.5-1 retains pressure boundary integrity at design pressure.
- 3.11 Containment isolation piping shown as ASME Code Section III on Figure 3.5-1 is installed and inspected in accordance with ASME Code Section III requirements.
- 3.12 Components listed in Table 3.5-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.
- 3.13 Components listed in Table 3.5-1 as ASME Code Section III are ~~fabricated-reconciled~~ in accordance with ASME Code Section III design requirements.
- 3.14 Pressure boundary welds on components listed in Table 3.5-1 as ASME Code Section III ~~are in accordance with~~ meet ASME Code Section III non-destructive examination requirements.
- 3.15 Components listed in Table 3.5-1 as ASME Code Section III retain pressure boundary integrity at design pressure.
- 3.16 Components listed in Table 3.5-1 as ASME Code Section III are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.
- 3.17 Containment isolation valves are located close to the containment penetrations.
- 4.0 I&C Design Features, Displays and Controls**
- 4.1 Displays listed in Table 3.5-2—Containment Isolation Equipment I&C and Electrical Design are ~~retrievable-indicated~~ in the main control room (MCR) ~~as listed in Table 3.5-2~~.
- 4.2 Controls on the PICS in the MCR and the RSS perform the function ~~The containment isolation equipment controls are provided in the MCR as~~ listed in Table 3.5-2.
- 4.3 Equipment listed as being controlled by a priority and actuator control system (PACS) module in Table 3.5-2 responds to the state requested ~~by a test signal and provides drive~~ monitoring signals back to the PACS module. The PACS module will protect the equipment by terminating the output command upon the equipment reaching the requested state.
- 5.0 Electrical Power Design Features**
- 5.1 The components designated as Class 1E in Table 3.5-2 are powered from the Class 1E division as listed in Table 3.5-2 in a normal or alternate feed condition.
- 5.2 Valves listed in Table 3.5-2 fail as-is on loss of power.
- 5.3 ~~Deleted. Containment electrical penetrations routing Class 1E cables have only Class 1E cables or associated cables.~~



Table 3.5-3—Containment Isolation ITAAC (8 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.11	Containment isolation piping shown as ASME Code Section III on Figure 3.5-1 is installed and inspected in accordance with ASME Code Section III requirements.	An inspection of the as-built piping <u>shown as ASME Code Section III on Figure 3.5-1</u> will be performed.	For containment isolation piping shown as ASME Code Section III on Figure 3.5-1, <u>ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is fabricated, installed, and inspected</u> N-5 Data Reports exist and conclude that installation and inspection are in accordance with ASME Code Section III requirements.
3.12	Components listed in Table 3.5-1 as ASME Code Section III are designed in accordance with ASME Code Section III requirements.	Inspections-Analysis of ASME Code Section III Design Reports and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that <u>the design of</u> components listed as ASME Code Section III in Table 3.5-1 comply <u>complies</u> with ASME Code Section III requirements.



Table 3.5-3—Containment Isolation ITAAC (8 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.13	Components listed in Table 3.5-1 as ASME Code Section III are fabricated <u>reconciled</u> in accordance with ASME Code Section III <u>design</u> requirements.	An analysis <u>Analyses of ASME Code Design Reports (NCA-3550) for components listed as ASME Code Section III, other than RPV internals, in Table 3.5-1 will be performed to verify that deviations to the component design reports (NCA-3550) have been reconciled.</u>	<u>For components listed as ASME Code Section III, other than RPV internals, in Table 3.5-1, ASME Code Data Reports (N-5) conclude that design reconciliation (NCA-3554) has been completed in accordance with the ASME Code Section III for the as-built system. The report(s) document the results of the reconciliation analysis. ASME Code Section III Design Reports (NCA-3550) exist and conclude that components listed as ASME Code Section III in Table 3.5-1 comply with ASME Code Section III requirements and any deviations to the design report have been reconciled.</u>
3.14	Pressure boundary welds on components listed in Table 3.5-1 as ASME Code Section III are in accordance with <u>meet</u> ASME Code Section III <u>non-destructive examination</u> requirements.	Inspections of pressure boundary welds, <u>other than RPV internals</u> , will be performed to verify that welding is performed in accordance with ASME Code Section III requirements.	For components listed as ASME Code Section III in Table 3.5-1, ASME Code Section III Data Reports (NCA-8000) exist and conclude that <u>non-destructive examination of pressure boundary welds comply</u> welding has been performed in accordance with ASME Code Section III <u>requirements</u> .
3.15	Components listed in Table 3.5-1 as ASME Code Section III retain pressure boundary integrity at design pressure.	Hydrostatic tests will be performed on the components .	For components listed as ASME Code Section III in Table 3.5-1, ASME Code Section III Data Reports exist and conclude that hydrostatic test results comply with ASME Code Section III requirements.



Table 3.5-3—Containment Isolation ITAAC (8 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.16	<p>Components listed in Table 3.5-1 as ASME Code Section III are <u>fabricated</u>, installed, <u>and inspected</u> in accordance with ASME Code Section III requirements.</p>	<p>An inspection of ASME Code Data Reports <u>An inspection of components listed in Table 3.5-1 as ASME Code Section III</u> will be performed.</p>	<p>ASME Code Section III N-5 Data Reports exist and conclude that components listed as ASME Code Section III in Table 3.5-1 have been installed <u>For components listed in Table 3.5-1 as ASME Code Section III, ASME Code Data Report(s) (certified, when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) conclude that the piping is components are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.</u></p>
3.17	<p>Containment isolation valves are located close to containment penetrations.</p>	<p>a. <u>An analysis will be performed.</u> The design location of containment isolation valves will be close to the containment penetrations.</p> <p>b. Inspection of the as-built location of containment isolation valves will be performed. Deviations to the design location of containment isolation valves will be reconciled to the design report <u>analysis</u>.</p>	<p>a. An design report analysis concludes that the containment isolation valves listed in Table 3.5-1 are located <u>as</u> close to the containment penetrations <u>as practical</u> with consideration of the following:</p> <ul style="list-style-type: none"> • Access for inspection of welds. • Containment leak testing. • Replacement. • Valve maintenance. <p>b. An as-built inspection report concludes that deviations to the design location of containment isolation valves have been reconciled.</p>