ArevaEPRDCPEm Resource

From: WELLS Russell D (AREVA NP INC) [Russell.Wells@areva.com]

Sent: Monday, April 19, 2010 11:55 AM

To: Tesfaye, Getachew

Cc: BRYAN Martin (EXT); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V

(AREVA NP INC)

Subject: Response to U.S. EPR Design Certification Application RAI No. 326, FSAR Ch 3,

Supplement 2

Attachments: RAI 326 Supplement 2 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 326 on February 15, 2010. AREVA NP submitted Supplement 1 to the response on March 18, which provided technically correct and complete responses to 14 of the remaining 15 questions. The attached file, "RAI 326 Supplement 2 Response US EPR DC.pdf" provides a technically correct and complete response to the remaining question, 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 326 Question 03.11-33.

The following table indicates the respective pages in the response document, "RAI 326 Supplement 2 Response US EPR DC.pdf" that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 326 — 03.11-33	2	3

This concludes the formal AREVA NP response to RAI 326, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

(Russ Wells on behalf of) Martin (Marty) C. Bryan Licensing Advisory Engineer AREVA NP Inc.

Tel: (434) 832-3016

Martin.Bryan.ext@areva.com

From: BRYAN Martin (EXT)

Sent: Thursday, March 18, 2010 2:30 PM

To: 'Tesfaye, Getachew'

Cc: DELANO Karen V (AREVA NP INC); ROMINE Judy (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); VAN

NOY Mark (EXT)

Subject: Response to U.S. EPR Design Certification Application RAI No. 326, FSAR Ch. 3, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 326 on February 15, 2010. The attached file, "RAI 326 Supplement 1 Response US EPR DC.pdf" provides technically correct and complete responses to 14 of the remaining 15 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 326 Questions 03.11-19, 03.11-20, 03.11-21, 03.11-22, 03.11-23, 03.11-24, 03.11-25, 03.11-26, 03.11-27, and 03.11-32.

The following table indicates the respective pages in the response document, "RAI 326 Supplement 1 Response US EPR DC.pdf" that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 326 — 03.11-19	2	2
RAI 326 — 03.11-20	3	3
RAI 326 — 03.11-21	4	4
RAI 326 — 03.11-22	5	5
RAI 326 — 03.11-23	6	6
RAI 326 — 03.11-24	7	7
RAI 326 — 03.11-25	8	8
RAI 326 — 03.11-26	9	9
RAI 326 — 03.11-27	10	10
RAI 326 — 03.11-28	11	11
RAI 326 — 03.11-29	12	12
RAI 326 — 03.11-30	13	13
RAI 326 — 03.11-31	14	14
RAI 326 — 03.11-32	15	15

The schedule for technically correct and complete responses to the remaining 1 question is unchanged and provided below:

Question #	Response Date
RAI 326 — 03.11-33	June 18, 2010

Sincerely,

Martin (Marty) C. Bryan Licensing Advisory Engineer AREVA NP Inc. Tel: (434) 832-3016

Martin.Bryan.ext@areva.com

From: DUNCAN Leslie E (AREVA NP INC) **Sent:** Monday, February 15, 2010 5:23 PM

To: 'Tesfaye, Getachew'

Cc: DELANO Karen V (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); ROMINE Judy (AREVA NP INC); VAN

NOY Mark (EXT)

Subject: Response to U.S. EPR Design Certification Application RAI No. 326, FSAR Ch. 3

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 326 Response US EPR DC.pdf" provides a schedule since technically correct and complete responses to the 15 questions are not provided.

The following table indicates the respective pages in the response document, "RAI 326 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 326 — 03.11-19	2	2
RAI 326 — 03.11-20	3	3
RAI 326 — 03.11-21	4	4
RAI 326 — 03.11-22	5	5
RAI 326 — 03.11-23	6	6
RAI 326 — 03.11-24	7	7
RAI 326 — 03.11-25	8	8
RAI 326 — 03.11-26	9	9
RAI 326 — 03.11-27	10	10
RAI 326 — 03.11-28	11	11
RAI 326 — 03.11-29	12	12
RAI 326 — 03.11-30	13	13
RAI 326 — 03.11-31	14	14
RAI 326 — 03.11-32	15	15
RAI 326 — 03.11-33	16	16

A complete answer is not provided for the 15 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 326 — 03.11-19	March 18, 2010
RAI 326 — 03.11-20	March 18, 2010
RAI 326 — 03.11-21	March 18, 2010
RAI 326 — 03.11-22	March 18, 2010
RAI 326 — 03.11-23	March 18, 2010
RAI 326 — 03.11-24	March 18, 2010
RAI 326 — 03.11-25	March 18, 2010
RAI 326 — 03.11-26	March 18, 2010
RAI 326 — 03.11-27	March 18, 2010
RAI 326 — 03.11-28	March 18, 2010
RAI 326 — 03.11-29	March 18, 2010
RAI 326 — 03.11-30	March 18, 2010
RAI 326 — 03.11-31	March 18, 2010
RAI 326 — 03.11-32	March 18, 2010
RAI 326 — 03.11-33	June 18, 2010

Sincerely,

Les Duncan Licensing Engineer

AREVA NP Inc.

An AREVA and Siemens Company

Tel: (434) 832-2849

<u>Leslie.Duncan@areva.com</u>

From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]

Sent: Friday, January 15, 2010 2:53 PM

To: ZZ-DL-A-USEPR-DL

Cc: Strnisha, James; Terao, David; Miernicki, Michael; Patel, Jay; Colaccino, Joseph; ArevaEPRDCPEm Resource

Subject: U.S. EPR Design Certification Application RAI No. 326 (3955), FSARCh. 3

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on October 30, 2009, and discussed with your staff on December 3, 2009. Draft RAI Question 03.11-29 was revised 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: 1322

Mail Envelope Properties (1F1CC1BBDC66B842A46CAC03D6B1CD4102C984D6)

Subject: Response to U.S. EPR Design Certification Application RAI No. 326, FSAR Ch

3, Supplement 2

Sent Date: 4/19/2010 11:55:22 AM **Received Date:** 4/19/2010 11:55:27 AM

From: WELLS Russell D (AREVA NP INC)

Created By: Russell.Wells@areva.com

Recipients:

"BRYAN Martin (EXT)" < Martin.Bryan.ext@areva.com>

Tracking Status: None

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Tracking Status: None

"Tesfaye, Getachew" < Getachew. Tesfaye@nrc.gov>

Tracking Status: None

Post Office: AUSLYNCMX02.adom.ad.corp

Files Size Date & Time

MESSAGE 6792 4/19/2010 11:55:27 AM RAI 326 Supplement 2 Response US EPR DC.pdf 487867

Options

Priority:StandardReturn Notification:NoReply Requested:NoSensitivity:Normal

Expiration Date: Recipients Received:

Response to

Request for Additional Information No. 326, Supplement 2

01/15/2010

U. S. EPR Standard Design Certification AREVA NP Inc. Docket No. 52-020

SRP Section: 03.11 - Environmental Qualification of Mechanical and Electrical Equipment

Application Section: 3.11

QUESTIONS for Component Integrity, Performance, and Testing Branch 1 (AP1000/EPR Projects) (CIB1)

Question 03.11-33:

NUREG-0800 states that equipment shall be designed to the capability of performing its design safety functions under all anticipated operational occurrences and in normal, accident, and post accident environment, and for the length of time for which its function is required. The applicant is requested to revise the DCD to address the length of time for which the function of each mechanical component is required.

Response to Question 03.11-33:

As discussed with the NRC during conference calls on March 18, 2010 and March 1, 2010, the operability times for electrical and mechanical equipment listed in U.S. EPR FSAR Tier 2, Table 3.10-1 and 3.11-1 are documented in the Equipment Qualification Data Packages (EQDPs) (U.S. EPR FSAR Tier 2, Appendix 3D, Attachment A) and the Seismic Qualification Data Packages (SQDPs) (U.S. EPR FSAR Tier 2, Appendix 3D, Attachment F) as applicable for electromechanical assemblies (e.g., valve and actuators, pumps, and motors). U.S. EPR FSAR Tier 2, Section 3.11.1.3 will be revised to indicate that the function times are documented as described above.

Additionally, ITAAC exists for the SQDP and the EQDP. The following ITAAC will be revised to specify that the function times are identified, as described above, for the components identified in their respective U.S. EPR FSAR Tier 1 tables. Additionally, these ITAAC tables are being revised to change the term "equipment" to "components" for consistency. Furthermore, for clarification purposes, the term "Type tests, analyses, or a combination of type tests and analyses" for these U.S. EPR FSAR Tier 1 tables will be revised to "Type tests or type tests and analyses," which is consistent with the discussion of IEEE Std 323 related to environmental qualification in U.S. EPR FSAR Tier 2, Section 3.11.2.1.

- U.S. EPR FSAR Tier 1, Table 2.2.1-5.
- U.S. EPR FSAR Tier 1, Table 2.2.2-3.
- U.S. EPR FSAR Tier 1, Table 2.2.3-3.
- U.S. EPR FSAR Tier 1, Table 2.2.4-3.
- U.S. EPR FSAR Tier 1, Table 2.2.5-3.
- U.S. EPR FSAR Tier 1, Table 2.2.6-3.
- U.S. EPR FSAR Tier 1, Table 2.2.7-3.
- U.S. EPR FSAR Tier 1, Table 2.2.8-2.
- U.S. EPR FSAR Tier 1, Table 2.3.3-3.
- U.S. EPR FSAR Tier 1, Table 2.4.14-2.
- U.S. EPR FSAR Tier 1, Table 2.4.16-2.
- U.S. EPR FSAR Tier 1, Table 2.4.17-3.
- U.S. EPR FSAR Tier 1, Table 2.4.19-3.
- U.S. EPR FSAR Tier 1, Table 2.4.22-3.
- U.S. EPR FSAR Tier 1, Table 2.5.4-4.

- U.S. EPR FSAR Tier 1, Table 2.6.1-3.
- U.S. EPR FSAR Tier 1, Table 2.6.3-3.
- U.S. EPR FSAR Tier 1, Table 2.6.4-3.
- U.S. EPR FSAR Tier 1, Table 2.6.6-3.
- U.S. EPR FSAR Tier 1, Table 2.6.7-3.
- U.S. EPR FSAR Tier 1, Table 2.6.8-4.
- U.S. EPR FSAR Tier 1, Table 2.6.9-3.
- U.S. EPR FSAR Tier 1, Table 2.6.13-3.
- U.S. EPR FSAR Tier 1, Table 2.7.1-3.
- U.S. EPR FSAR Tier 1, Table 2.7.2-3.
- U.S. EPR FSAR Tier 1, Table 2.7.5-3.
- U.S. EPR FSAR Tier 1, Table 2.7.11-3.
- U.S. EPR FSAR Tier 1, Table 2.8.2-3.
- U.S. EPR FSAR Tier 1, Table 2.8.6-3.
- U.S. EPR FSAR Tier 1, Table 2.8.7-3.
- U.S. EPR FSAR Tier 1, Table 2.9.3-3.
- U.S. EPR FSAR Tier 1, Table 2.9.4-3.
- U.S. EPR FSAR Tier 1, Table 2.9.5-2.
- U.S. EPR FSAR Tier 1, Table 3.5-3.
- U.S. EPR FSAR Tier 1, Table 3.7-2.

FSAR Impact:

U.S. EPR FSAR Tier 1, Table 2.2.1-5, Table 2.2.2-3, Table 2.2.3-3, Table 2.2.4-3, Table 2.2.5-3, Table 2.2.6-3, Table 2.2.7-3, Table 2.2.8-2, Table 2.3.3-3, Table 2.4.14-2, Table 2.4.16-2, Table 2.4.17-3, Table 2.4.19-3, Table 2.4.22-3, Table 2.5.4-4, Table 2.6.1-3, Table 2.6.3-3, Table 2.6.4-3, Table 2.6.6-3, Table 2.6.7-3, Table 2.6.8-4, Table 2.6.9-3, Table 2.6.13-3, Table 2.7.1-3, Table 2.7.2-3, Table 2.7.5-3, Table 2.7.11-3, Table 2.8.2-3, Table 2.8.6-3, Table 2.8.7-3, Table 2.9.3-3, Table 2.9.4-3, Table 2.9.5-2, Table 3.5-3, and Table 3.7-2 will be revised as described in the response and indicated on the enclosed markup.

U.S. EPR FSAR Tier 2, Section 3.11.1.3 will be revised as described in the response and indicated on the enclosed markup.

U.S. EPR Final Safety Analysis Report Markups



Table 2.2.1-5—RCS Reactor Coolant System ITAAC (9 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
		e. Hydrostatic testing of the equipment identified in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, will be performed per ASME Code Section III hydrostatic testing requirements.	e. Equipment identified in Table 2.2.1-1 as ASME Code Section III, other than RPV internals, has been hydrostatically tested per ASME Code Section III hydrostatic testing requirements.
3.2	Check valves listed in Table 2.2.1-1 will function as listed in Table 2.2.1-1.	Tests will be performed for the operation of the check valves listed in Table 2.2.1-1.	The check valves listed in Table 2.2.1-1 perform the functions listed in Table 2.2.1-1.
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. Equipment identified as Seismic Category I in Table 2.2.1-1 can withstand seismic design basis loads	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 2.2.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.1- 1 can withstand seismic design basis loads without a loss of the function listed in Table
	without loss of safety function as listed in Table 2.2.1-1.	design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.2.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	2.2.1-1 including the time required to perform the listed functiona. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.1-1 can withstand seismic design basis loads without loss of safety function.

03.11-33



Table 2.2.1-5—RCS Reactor Coolant System ITAAC (9 Sheets)

C	ommitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.3	The power supply arrangement is such that only two emergency diesels are required to operate to supply power to the minimum number of PZR heaters. O3.11	An analysis will be performed.	An analysis exists and concludes that only two emergency diesel generators are required to operate to supply power to the minimum number of emergency PZR heaters, which are rated at 144 kW per heater.
6.1	Components in Table 2.2.1-2, that are designated as harsh environment, will perform the function listed in Table 2.2.1-1 in the environments that exist during and following design basis events. Components listed in Table 2.2.1-2, which are designated as harsh environment, perform the function listed in Table 2.2.1-1 in the environments that exist before and during the time required to perform their function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.2.1-2 to perform the function listed in Table 2.2.1-1 for the environmental conditions that could occur during and following design basis events. a. Type tests, tests, analyses, or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.2.1-2 to perform the function listed in Table 2.2.1-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.2.1-2 can perform the function listed in Table 2.2.1-1 during and following design basis events including the time required to perform the listed functiona. The Class 1E equipment listed for harsh environment in Table 2.2.1-2 can perform the function listed in Tables 2.2.1-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.2.1-5—RCS Reactor Coolant System ITAAC (9 Sheets)

	Inspections, Tests, 03.11-33	
Commitment Wording	Analyses	Acceptance Criteria
03.11-33	b. Components listed as harsh environment in Table 2.2.1- 2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.1- 2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.2.1-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes the asinstalled Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.1-2 for harsh environment conform with the design.



6.2

Table 2.2.1-5—RCS Reactor Coolant System ITAAC (9

03.11-33 Sheets)

Commitment Wording

Instrumentation in Table 2.2.1-3, that are designated as harsh environment, will display as listed in Table 2.2.1-3 in the environments that exist during and following design basis events.Instrumentation listed in Table 2.2.1-3 for harsh environment can display following exposure to the design basis environments for the time required.

Inspections, Tests, Analyses

- a. Type tests or type tests and analysis will be performed to demonstrate the ability of the instrumentation listed as harsh environment in Table 2.2.1-3 to display as listed in Table 2.2.1-3 for the environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses, or a combination of tests and analyses will be performed to demonstrate the ability of the instrumentation listed for harsh environment in Table 2.2.1-3 to display for the environmental conditions that could occur before and during a design basis accident. 03.11-33
- b. Instrumentation listed as harsh environment in Table 2.2.1-3 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EODP.b. -For instrumentation listed for harsh environment in Table 2.2.1-3, an inspection will be performed of the asinstalled instrumentation and the associated wiring, cables and terminations.

Acceptance Criteria

- a. Environmental
 Qualification Data
 Packages (EQDP) exist
 and conclude that the
 instrumentation listed as
 harsh environment in
 Table 2.2.1-3 can display
 as listed in Table 2.2.1-3
 during and following
 design basis events
 including the time
 required to perform the
 listed function.a.
 - Instrumentation listed for harsh environment in Table 2.2.1-3 can display before and during design basis accidents.

b. Inspection reports exists and conclude that the instrumentation listed in Table 2.2.1-3 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EODP.b. Inspection concludes the asinstalled instrumentation and associated wiring. cables, and terminations as listed in Table 2.2.1-3 for harsh environment conform with the design.



Table 2.2.2-3—<u>In-Containment Refueling Water Storage</u>
<u>Tank System</u><u>IRWSTS</u> ITAAC (7 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.3 Components identified as Seismic Category I in Table 2.2.2-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.2-1. Equipment identified as Seismic Category I in Table 2.2.2-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.2.2-1.	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 2.2.2-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment listed as Seismic Category I in Table 2.2.2-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. 03.11-b. Inspections will be performed of the Seismic Category I components identified in Table 2.2.2-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the asinstalled Seismic Category I equipment listed in Table 2.2.2-1 to verify that the equipment listed in Table 2.2.2-1 to verify that the equipment listed in Table 2.2.2-1 to verify that the equipment listed in Table 2.2.2-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.2-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.2-1 including the time required to perform the listed function.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.2-1 can withstand seismic design basis loads without loss of safety function. 33 b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.2.2-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.2.2-1 including anchorage is installed as specified on the construction drawings.



Table 2.2.2-3—<u>In-Containment Refueling Water Storage</u> Tank SystemIRWSTS ITAAC (7 Sheets)

03.11-33 **Commitment Wording** Inspections, Tests, **Acceptance Criteria Analyses** 6.1 Components in Table 2.2.2 a. Type tests or type tests and a. Environmental 2, that are designated as analysis will be performed Qualification Data harsh environment, will to demonstrate the ability Packages (EQDP) exist and perform the function listed of the components listed as conclude that the in Table 2.2.2-1 in the harsh environment a Table components listed as harsh environments that exist 2.2.2 -2 to perform the environment in Table 2.2.2 during and following design function listed in Table -2 can perform the function |03.11-33| basis events. Components 2.2.2-1 for the listed in Table 2.2.2-1 listed as Class 1E in Table environmental conditions during and following 2.2.2-2 that are designated that could occur during and design basis events as harsh environment will following design basis including the time required perform the function listed events.a. Type tests, to perform the listed tests, analyses, or a in Table 2.2.2-1 in the function.a. The Class 1E environments that exist combination of tests and equipment listed for harsh before and during the time analyses will be performed environment in Table 2.2.2to demonstrate the ability 2 can perform the function required to perform their listed in Table 2.2.2-1 function. of the equipment listed for harsh environment in Table before and during design 2.2.2-2 to perform the basis accidents for the time function listed in Table required to perform the 2.2.2-1 for the listed function. environmental conditions that could occur before and during a design basis accident.



Table 2.2.2-3—<u>In-Containment Refueling Water Storage</u>
<u>Tank System</u>IRWSTS ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.2.2 -2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.2-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.2.2 - 2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.2-2 for harsh environment conform with the design.
7.1	Class 1E valves listed in Table 2.2.2-2 perform the function listed in Table 2.2.2-1 under system operating conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.2.2-2 to change position as listed in Table 2.2.2-1 under system operating design conditions.	The as-installed valve changes position as listed Table 2.2.2-1 under system operating design conditions.
7.2	Containment isolation valves listed in Table 2.2.2-1 close within the containment isolation response time following initiation of a containment isolation signal.	Tests will be performed to demonstrate the ability of the containment isolation valves listed in Table 2.2.2-1 to close within the containment isolation response time following initiation of a containment isolation signal.	Containment isolation valves listed in Table 2.2.2-1 close within 60 seconds following initiation of a containment isolation signal.
7.3	The IRWST provides a required water volume.	An inspection will be performed of the IRWST required water volume.	The IRWST provides the following required minimum water volume: 66,886 ft ³ .



Table 2.2.3-3—<u>Safety Injection System and Residual Heat</u>
<u>Removal System SIS/RHRS ITAAC (8 Sheets)</u>

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.2	Check valves listed in Table 2.2.3-1 will function as listed in Table 2.2.3-1.	Tests will be performed for the operation of the check valves listed in Table 2.2.3-1.	The check valves listed in Table 2.2.3-1 perform the functions listed in Table 2.2.3-1.
3.3	Deleted.	Deleted.	Deleted.
3.4	Components identified as Seismic Category I in Table 2.2.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.3-1. Equipment identified as Seismic Category I in Table 2.2.3-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.2.3-1.	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 2.2.3-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment listed as Seismic Category I in Table 2.2.3-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.3-1 including the time required to perform the listed function.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.3-1 can withstand seismic design basis loads without loss of safety function.

03.11-33



Table 2.2.3-3—<u>Safety Injection System and Residual Heat</u>
<u>Removal System SIS/RHRS ITAAC (8 Sheets)</u>

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.1	The components designated as Class 1E in Table 2.2.3-2 are powered from the Class 1E division as listed in Table 2.2.3-2 in a normal or alternate feed condition.	a. Testing will be performed for components designated as Class 1E in Table 2.2.3-2 by providing a test signal in each normally aligned division.	a. The test signal provided in the normally aligned division is present at the respective Class 1E component identified in Table 2.2.3-2.
		b. Testing will be performed for components designated as Class 1E in Table 2.2.3-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.2.3-2.
5.2	Valves listed in Table 2.2.3-2 fail as-is on loss of power.	Testing will be performed for the valves listed in Table 2.2.3-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.2.3-2 fail as-is.
6.1	Components in Table 2.2.3-2, that are designated as harsh environment, will perform the function listed in Table 2.2.3-1 in the environments that exist during and following design basis	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.2.3-2 to perform the function listed in Table 2.2.3-1 for the environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses, or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.2.3-2 to perform the function listed in Table 2.2.3-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.2.3-2 can perform the function listed in Table 2.2.3-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.2.3-2 can perform the function listed in Table 2.2.3-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.2.3-3—<u>Safety Injection System and Residual Heat</u>
<u>Removal System SIS/RHRS ITAAC (8 Sheets)</u>

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.2.3-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.3-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables, and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.2.3-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.3-2 for harsh environment conform with the design.
	The SIS/RHRS heat exchangers listed in Table 2.2.3-1 have the capacity to transfer the design heat load to the component cooling water system.	Tests and analyses will be performed to demonstrate the capability of one of the SIS/RHRS heat exchangers as listed in Table 2.2.3-1 to transfer the heat load to the component cooling water system.	The SIS/RHRS has the capacity to remove the design heat load via the heat exchangers listed in Table 2.2.3-1: Design heat load per one heat exchanger = 2.35E+08 BTU/hr.
7.2	The accumulators listed in Table 2.2.3-1 have sufficient storage volume for core cooling due to design basis events.	Inspections and analyses will be performed to verify adequate storage volume for accumulators listed in Table 2.2.3-1.	The accumulators listed in Table 2.2.3-1 provide the following storage volume: Minimum storage volume per accumulator = 1942.3 ft ³



Table 2.2.4-3—<u>Emergency Feedwater System</u><u>EFWS</u> ITAAC (5 Sheets)

С	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria	
3.4	Components identified as Seismic Category I in Table 2.2.4-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.4-1. Equipment identified as Seismic Category I in Table 2.2.4-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.2.4-1.	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 2.2.4-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment listed as Seismic Category I in Table 2.2.4-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. b. Inspections will be performed of the Seismic Category I components identified in Table 2.2.4-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the asinstalled Seismic Category I equipment listed in Table 2.2.4-1 to verify that the equipment listed in Table 2.2.4-1 to verify that the equipment listed in Table 2.2.4-1 to verify that the equipment listed in Table 2.2.4-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.4-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.4-1 including the time required to perform the listed function.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.4-1 can withstand seismic design basis loads without loss of safety function. b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.2.4-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.2.4-1 including anchorage is installed as specified on the construction drawings.	
3.5	Deleted.	Deleted.	Deleted.	
3.6	Deleted.	Deleted.	Deleted.	
3.7	Deleted.	Deleted.	Deleted.	



Table 2.2.4-3—<u>Emergency Feedwater System</u><u>EFWS</u> ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	condition.	b. Testing will be performed for components designated as Class 1E in Table 2.2.4-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.2.4-2.
5.2	Valves listed in Table 2.2.4-2 fail as-is on loss of power. 03.11-33	Testing will be performed for the valves listed in Table 2.2.4-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.2.4-2 fail as-is.
6.1	Components in Table 2.2.4-2, that are designated as harsh environment, will perform the function listed in Table 2.2.4-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table 2.2.4- 2, that are designated as harsh environment, will perform the function listed in Table 2.2.4-1 in the environments that exist before and during the time required to perform their function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.2.4-2 to perform the function listed in Table 2.2.4-1 for the environmental conditions that could occur during and following design basis events.a. Tyl 03.11-33 analyses, or a communion of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.2.4-2 to perform the function listed in Table 2.2.4-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.2.4- 2 can perform the function listed in Table 2.2.4-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.2.4-2 can perform the function listed in Table 2.2.4-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.2.4-3—<u>Emergency Feedwater System</u><u>EFWS</u> ITAAC (5 Sheets)

C	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria	
	03.11-33	b. Components listed as harsh environment in Table 2.2.4-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.4-2, an inspection will be performed of the as-installed Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.2.4-2 as harsh any deviations have been reconciled to the EQDP.b. Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.4-2 for harsh environment conform with the design.	
7.1	The pumps listed in Table 2.2.4-1 have sufficient NPSHA.	Testing and analyses will be performed to verify NPSHA for pumps listed in Table 2.2.4-1.	The pumps listed in Table 2.2.4-1 have NPSHA that is greater than net positive suction head required (NPSHR) at system run-out flow.	
7.2	The EFWS delivers water to the steam generators at the required flowrate to restore and maintain SG water level and remove decay heat following the loss of normal feedwater supply due to design basis events.	Tests and Analysis analysis will be performed to determine verify the EFWS delivery flowrate to the steam generators for design conditions.	The EFWS delivers the following design flowrate-to the SGs for design conditions: Minimum flow of 198,416 lb _m /hr (or 399.4 gpm at 122°F) at pressures up to 1426.1 psia-and linearly ramping to 61,906 lb _m /hr (or 124.6 gpm at 122°F) at 1568.2 psia.	
7.3	The EFWS combined storage pool <u>available</u> volume is sufficient to <u>support cooldownachieve a cold shutdown condition</u> for design basis conditions.	Inspection and analysis will be performed to determine verify the EFWS storage pool volume required to achieve a cold shutdown condition for design basis conditions.	The following EFWS combined storage pool available volume is providedsufficient to achieve a cold shutdown condition for design basis conditions: Minimum 365,000 gallons (total for 4 pools).	



Table 2.2.5-3—<u>Fuel Pool Cooling and Purification</u>
<u>System</u><u>FPCPS</u> ITAAC (5 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.4 Components identified as Seismic Category I in Table 2.2.5-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.5-1.Equipment identified as Seismic Category I in Table 2.2.5-1	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 2.2.5-1 using analytical assumptions, or under conditions, which bound the	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.5-1 can withstand seismic design basis loads without a loss of the function listed in
can withstand seismic design basis loads without loss of safety function as	Seismic Category I design requirements.a. Type tests, analyses, or a	Table 2.2.5-1 including the time required to perform the listed function.a.
listed in Table 2.2.5-1.	combination of type tests and analyses will be 03.11- performed on the equipment listed as Seismic Category I in Table 2.2.5-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.5-1 can withstand seismic design basis loads without loss of safety function.
	b. Inspections will be performed of the Seismic Category I components identified in Table 2.2.5-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the as- installed Seismic Category I equipment listed in Table 2.2.5-1 to verify that the equipment including anchorage is installed as specified on the	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.2.5-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.2.5-1 including anchorage is installed as specified on the construction drawings.



Table 2.2.5-3—Fuel Pool Cooling and Purification System FPCPS ITAAC (5 Sheets)

03.11-33 **Commitment Wording** Inspections, Tests, **Acceptance Criteria Analyses** 6.1 Components in Table a. Type tests or type tests and a. Environmental Qualification 2.2.5-2, that are designated analysis will be performed Data Packages (EQDP) as harsh environment, will to demonstrate the ability of exist and conclude that the perform the function listed the components listed as components listed as harsh in Table 2.2.5-1 in the harsh environment in Table environment in Table 2.2.5-2.2.5-2 to perform the 03.11-33 environments that exist 2 can perform the function during and following function listed in Table listed in Table 2.2.5-1 design basis 2.2.5-1 for the during and following design 03.11-33 events. Components risted environmental conditions basis events including the as Class 1E in Table 2.2.5that could occur during and time required to perform the 2 that are designated as following design basis listed function.a. The harsh environment will events.a. Type tests, Class 1E equipment listed perform the function listed tests, analyses, or a for harsh environment in in Table 2.2.5-1 in the combination of tests and Table 2.2.5-2 can perform environments that exist analyses will be performed the function listed in Table before and during the time to demonstrate the ability of 2.2.5-1 before and during required to perform their the equipment listed for design basis accidents for function. harsh environment in Table the time required to perform 2.2.5-2 to perform the the listed function. function listed in Table 2.2.5-1 for the environmental conditions that could occur before and during a design basis accident.



Table 2.2.5-3—Fuel Pool Cooling and Purification
System FPCPS ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria	
	03.11-33	b. Components listed as harsh environment in Table 2.2.5-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.5-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.2.5-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.5-2 for harsh environment conform with the design.	
7.1	The fuel pool cooling system heat exchangers listed in Table 2.2.5-1 each have the capacity to transfer the design heat load to the component cooling water system.	Vendor supplied data, based on Tests-tests and analyses, will be used performed to demonstrate the capability of each fuel pool cooling system FPCS heat exchanger as listed in Table 2.2.5-1 to transfer the design heat load to the component cooling water system.	One Each fuel pool cooling system train has the capacity to remove the design heat load of 19.8 MW and maintain the SFP temperature below 140°F via one heat exchanger.	
7.2	The pumps listed in Table 2.2. 5-1 have sufficient NPSHA.	Testing and analyses will be performed to verify NPSHA for pumps listed in Table 2.2.5-1.	The pumps listed in Table 2.2.5-1 have NPSHA that is greater than net positive suction head required (NPSHR) at system run-out flow.	



Table 2.2.6-3—Chemical and Volume Control System CVCS ITAAC (6 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.4	Components identified as Seismic Category I in Table 2.2.6-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.6-1. Equipment identified as Seismic Category I in Table 2.2.6-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.2.6-1.	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 2.2.6-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment listed as Seismic Category I in Table 2.2.6-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. 03.11-	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.6-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.6-1 including the time required to perform the listed functiona. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.6-1 can withstand seismic design basis loads without loss of safety function.
3.5	Deleted.	b. Inspections will be performed of the Seismic Category I components identified in Table 2.2.6-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspections will be performed of the as-installed Seismic Category I equipment listed in Table 2.2.6-1 to verify that the equipment including anchorage is installed as specified on the construction drawings. Deleted.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.2.6-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.2.6-1 including anchorage is installed as specified on the construction drawings. Deleted.



Table 2.2.6-3—Chemical and Volume Control System CVCS ITAAC (6 Sheets)

	03.11-	-33 I	inspections, lests,		
	Commitment Wording	7	Analyses		Acceptance Criteria
6.1	Components in Table 2.2.6-2, that are designated as harsh environment, will perform the function listed in Table 2.2.6-1 in the environments that exist during and following design basis	3	Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.2.6-2 to perform the function listed in Table 2.2.6-1 for the environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or 03.11-33 combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.2.6-2 to perform the function listed in Table 2.2.6-1 for the environmental conditions that could occur before and during a design	<u>]a.</u>	Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.2.6-2 can perform the function listed in Table 2.2.6-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.2.6-2 can perform the function listed in Table 2.2.6-1 before and during design basis accidents for the time required to perform the listed function.
	03.11-33	b.	Components listed as harsh environment in Table 2.2.6-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.6-2, an inspection will be performed of the as-installed Class 1E equipment and the associated wiring, cables and terminations.		Inspection reports exists and conclude that the components listed in Table 2.2.6-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.6-2 for harsh environment conform with the design.



Table 2.2.7-3—Extra Borating System EBS-ITAAC (6 Sheets)

(Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.3	Deleted	Deleted.	Deleted.
3.4	Components identified as Seismic Category I in Table 2.2.7-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.7-1. Equipment identified as Seismic Category I in Table 2.2.7-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.2.7-1.	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 2.2.7-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment listed as Seismic Category I in Table 2.2.7-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.2.7-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.2.7-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.2.7-1 can withstand seismic design basis loads without loss of safety function.

03.11-33



Table 2.2.7-3—Extra Borating System EBS-ITAAC (6 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
		b. Testing will be performed for components designated as Class 1E in Table 2.2.7-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.2.7-2.
5.2	Valves listed in Table 2.2.7-2 fail as-is on loss of power. 03.11-33	Testing will be performed for the valves listed in Table 2.2.7-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.2.7-2 fail as-is.
6.1	Components in Table 2.2.7- 2, that are designated as harsh environment, will perform the function listed in Table 2.2.7-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table 2.2.7-2 that are designated as harsh environment will perform the function listed in Table 2.2.7-1 in the environments that exist before and during the time required to perform their function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.2.7-2 to perform the function listed in Table 2.2.7-1 for the 03.11-33 environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.2.7-2 to perform the function listed in Table 2.2.7-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.2.7- 2 can perform the function listed in Table 2.2.7-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.2.7- 2 can perform the function listed in Table 2.2.7-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.2.7-3—Extra Borating System EBS-ITAAC (6 Sheets)

(Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.2.7-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.2.7-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables, and terminations.	Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.2.7-2 for harsh environment conform with the design.
7.1	The pumps listed in Table 2.2.7-1 have sufficient NPSHA.	Testing and analyses will be performed to verify NPSHA for pumps listed in Table 2.2.7-1.	The pumps listed in Table 2.2.7-1 have NPSHA that is greater than net positive suction head required (NPSHR) at system run- outrated flow.
7.2	Class 1E valves listed in Table 2.2.7-2 perform the function listed in Table 2.2.7-1 under system operating conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.2.7-2 to change position as listed in Table 2.2.7-1 under system operating design conditions.	The as-installed valve changes position as listed Table 2.2.7-1 under system operating design conditions.
7.3	The EBS has provisions to allow flow testing of the EBS pumps during plant operation.	Testing for flow of the EBS pumps back to the EBS tank will be performed.	The flow test line allows EBS pump flow back to the EBS tank of at least 49 gpm.



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

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
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.Equipment identified as Seismic Category I in Table 2.2.8-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.2.8-1.	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.a. Type	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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
	2.2.8-1.	tests, analyses, or a combination of type tests and analyses will be 03.11-3 performed on the equipment listed as Seismic Category I in Table 2.2.8-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	perform the listed function.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.2.8-1 can withstand seismic design basis loads without loss of safety function.
		b. Inspections will be performed of the Seismic Category I components identified 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 seismic qualification reports (SQDP, EQDP, or analyses).b.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.2.8-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or
3.3	Deleted.	Inspections will be performed of the as-installed Seismic Category I equipment listed in Table 2.2.8-1 to verify that the equipment including anchorage is installed as specified on the construction drawings. Deleted.	analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.2.8-1 including anchorage is installed as specified on the construction drawings Deleted.



Table 2.3.3-3—Severe Accident Heat Removal System SAHRS-ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.4	Components identified as Seismic Category I in Table 2.3.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.3.3-1. Equipment identified as Seismic Category I in Table 2.3.3-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.3.3-1.	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 2.3.3-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.3.3-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.3.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.3.3-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.3.3-1 can withstand seismic design basis loads without loss of safety function.
		b. Inspections will be performed of the Seismic Category I components identified in Table 2.3.3-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the asinstalled Seismic Category I equipment listed in Table 2.3.3-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.3.3-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.3.3-1 including anchorage is installed as specified on the construction drawings.



Table 2.3.3-3—<u>Severe Accident Heat Removal System</u>
<u>SAHRS-ITAAC (5 Sheets)</u>

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.1	The components designated as Class 1E in Table 2.3.3-2 are powered from the Class 1E division as listed in Table 2.3.3-2 in a normal or alternate feed condition.	 a. Testing will be performed for components designated as Class 1E in Table 2.3.3-2 by providing a test signal in each normally aligned division. b. Testing will be performed for components designated as Class 1E in Table 2.3.3-2 	 a. The test signal provided in the normally aligned division is present at the respective Class 1E component identified in Table 2.3.3-2. b. The test signal provided in each division with the alternate feed aligned to the
		by providing a test signal in each division with the alternate feed aligned to the divisional pair.	divisional pair is present at the respective Class 1E component identified in Table 2.3.3-2.
5.2	Valves listed in Table 2.3.3-2 fail as-is on loss of power.	Testing will be performed for the valves listed in Table 2.3.3-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.3.3-2 fail as-is.
6.1	Components in Table 2.3.3-2, that are designated as harsh environment, will perform the function listed in Table 2.3.3-1 in the environments that exist during and following design basis events. Ce 03.11-33 listed as Class 1E in Table 2.3.3-2, that are designated as harsh environment, will perform the function listed in Table 2.3.3-1 in the environments that exist before and during the time required to perform their function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.3.3-2 to perform the function listed in Table 2.3.3-1 for the 03.11-33 environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.3.3-2 to perform the function listed in Table 2.3.3-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.3.3- 2 can perform the function listed in Table 2.3.3-1 during and following design basis events including the time required to perform the listed function.a. A report exists and concludes that the Class 1E equipment listed for harsh environment in Table 2.3.3-2 can perform the function listed in Table 2.3.3-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.3.3-3—Severe Accident Heat Removal System SAHRS-ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.3.3-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.3.3-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.3.3-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.3.3-2 for harsh environment conform with the design.
7.1	Deleted. The SAHRS heat exchanger as listed in Table 2.3.3-1 has the capacity to transfer the design heat load to the CCWS.	Deleted. Tests and analyses will be performed to demonstrate the capability of the SAHRS heat exchanger as listed in Table 2.3.3-1 to transfer the heat load to the CCWS.	Deleted. A report exists and concludes that the SAHRS system has the capacity to remove the design heat load via the heat exchanger listed in Table 2.3.3-1.
7.2	Class 1E valves listed in Table 2.3.3-2 perform the function listed in Table 2.3.3-1 under system operating design conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.3.3-2 to change position as listed in Table 2.3.3-1 under system operating design conditions.	The as-installed valve changes position as listed in Table 2.3.3-1 under system operating design conditions.
7.3	Containment isolation valves listed in Table 2.3.3-1 close within the containment isolation response time following initiation of a containment isolation signal.	Tests will be performed to demonstrate the ability of the containment isolation valves listed in Table 2.3.3-1 to close within the containment isolation response time following initiation of a containment isolation signal.	Containment isolation valves listed in Table 2.3.3-1 close within 60 seconds following initiation of a containment isolation signal.



Table 2.4.14-2—Hydrogen Monitoring System ITAAC (2 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.1 The components identified as Class 1E in Table 2.4.14-1 are powered from the Class 1E division as listed in Table 2.4.14-1 in a normal or alternate feed condition.	a. Testing will be performed for components identified as Class 1E in Table 2.4.14-1 by providing a test signal in each normally aligned division.	a. The test signal provided in the normally aligned division is present at the respective Class 1E components identified in Table 2.4.14-1.
	b. Testing will be performed for components identified as Class 1E in Table 2.4.14-1 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E components identified in Table 2.4.14-1.
6.1 Components listed as Class 1E in Table 2.4.14-1 that are designated as harsh 03.11-33 environment, will perform their function in the environments that exist during and following design basis events Equipment listed as Class 1E in Table 2.4.14-1 that are designated as harsh environment will perform their safety function in the environments that exist before and during the time required to perform their safety function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as Class 1E in Table 2.4.14-1 to perform their function for the environmental 03.11-33 conditions that could occur during and following design basis events. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment to perform their safety function in the environments that exist before and during the time required to perform their safety function.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as Class IE in Table 2.4.14-1 can perform their function during and following design basis events including the time required to perform the listed function. A report exists and concludes that equipment listed as Class IE in Table 2.4.14-1 are qualified to perform their associated safety function in the environments that exist before and during the time required to perform their safety function.



Table 2.4.14-2—Hydrogen Monitoring System ITAAC (2 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
03.11-33	b. Components listed as Class 1E in Table 2.4.14-1 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.	b. Inspection reports exists and conclude that the components listed as Class 1E in Table 2.4.14-1 has been installed per the construction drawings and any deviations have been reconciled to the EQDP.



Table 2.4.16-2—Reactor Pressure Vessel Level Measurement System ITAAC (2 Sheets)

	Commitment Wording		Inspections, Tests, Analyses		Acceptance Criteria
5.1	The components identified as Class 1E in Table 2.4.16-1 are powered from the Class 1E division as listed in Table 2.4.16-1 in a normal or alternate feed condition.	a.	Testing will be performed for components identified as Class 1E in Table 2.4.16-1 by providing a test signal in each normally aligned division.	a.	The test signal provided in the normally aligned division is present at the respective Class 1E components identified in Table 2.4.16-1.
	03.11-33	b.	Testing will be performed for components identified as Class 1E in Table 2.4.16-1 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b.	The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E components identified in Table 2.4.16-1.
6.1	Components listed as Class 1E in Table 2.4.16-1 that are designated as harsh environment, will perform their function in the environments that exist during and following design	a	Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as Class 1E in Table 2.4.16-1 to perform their function for the environmental 03.11-33	Ľ′	Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as Class 1E in Table 2.4.16-1 can perform their function during and following design
	basis events. Equipm 03.11-3 listed as Class 1E in Table 2.4.16-1 that are designated	3	conditions that could occur during and following design basis events. Type tests,		basis events including the time required to perform the listed function. A report
	as harsh environment will perform their safety function in the environments that exist before and during the time required to perform their safety function.		tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment to perform their safety function for the environmental conditions that could occur before and during a design basis accident.		exists and concludes that equipment listed as Class 1E in Table 2.4.16-1 are qualified to perform their associated safety function in the environments that exist before and during the time required to perform their safety function.



Table 2.4.16-2—Reactor Pressure Vessel Level Measurement System ITAAC (2 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
03.11-33 →	b. Components listed as Class 1E in Table 2.4.16-1 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.	b. Inspection reports exists and conclude that the components listed as Class 1E in Table 2.4.16-1 has been installed per the construction drawings and any deviations have been reconciled to the EQDP.



Table 2.4.17-3—Excore Instrumentation System ITAAC (2 Sheets)

Commitment Word		tions, Tests, nalyses	Acceptance Criteria
5.1 The components ide as Class 1E in Table 1 are powered from Class 1E division as Table 2.4.17-1 in a r or alternate feed con	2.4.17- the as Class 1 listed in ormal in each no	cill be performed onents identified E in Table 2.4.17-iding a test signal ormally aligned	a. The test signal provided in the normally aligned division is present at the respective Class 1E components identified in Table 2.4.17-1.
03	for compo as Class 1 1 by provi in each di	onents identified E in Table 2.4.17- iding a test signal vision with the feed aligned to the pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E components identified in Table 2.4.17-1.
6.1 Components listed a 1E in Table 2.4.17-1 designated as harsh environment, will per their function in the environments that ex during and following basis events. Equi 03 listed as Class 1E in 2.4.17-1 that are des as harsh environment perform their safety in the environments exist before and duri time required to perf their safety function	that are analysis we to demons the composition of the environment of the equipment	sor type tests and vill be performed strate the ability of onents listed as in Table 2.4.17-1 on their function for onmental 03.11-33 is that could occur defollowing design on the ones that exist design on the ents that exist design the could be performed on the ents that exist design the could be performed on the ents that exist design the time of perform their	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as Class 1E in Table 2.4.17-1 can perform their function during and following design basis events including the time required to perform the listed function. A report exists and concludes that equipment listed as Class 1E in Table 2.4.17-1 are qualified to perform their associated safety function in the environments that exist before and during the time required to perform their safety function.



Table 2.4.17-3—Excore Instrumentation System ITAAC (2 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
03.11-33	b. Components listed as Class 1E in Table 2.4.17-1 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.	b. Inspection reports exists and conclude that the components listed as Class 1E in Table 2.4.17-1 has been installed per the construction drawings and any deviations have been reconciled to the EQDP.



Table 2.4.19-3—Incore Instrumentation System ITAAC

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.1	Components listed as Class 1E in Table 2.4.19-1 that are designated as harsh environment, will perform their function in the 03.11-33 environments that exist during and following design basis eventsEquipment listed as Class 1E in Table 2.4.19-1 that are designated as harsh environment will perform their safety function in the environments that exist before and during the time required to perform their safety function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as Class 1E in Table 2.4.19-1 to perform their function for the environmental 03.11-33 conditions that could occur during and following design basis events. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment to perform their safety function in the environments that exist before and during the time required to perform their safety function.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as Class AE in Table 2.4.19-1 can perform their function during and following design basis events including the time required to perform the listed function. A report exists and concludes that equipment listed as Class 1E in Table 2.4.19-1 are qualified to perform their associated safety function in the environments that exist before and during the time required to perform their safety function.
	03.11-33	b. Components listed as Class 1E in Table 2.4.19-1 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.	b. Inspection reports exists and conclude that the components listed as Class 1E in Table 2.4.19-1 has been installed per the construction drawings and any deviations have been reconciled to the EQDP.



Table 2.4.22-3—Radiation Monitoring System ITAAC (2 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.1	The location of the radiation monitoring system equipment is as listed in Table 2.4.22-1.	An inspection will be performed of the location of the equipment listed in Table 2.4.22-1.	The equipment listed in Table 2.4.22-1is located as listed in Table 2.4.22-1.
3.1	Components identified as Seismic Category I in Table 2.4.22-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.4.22- 1. Equipment identified as Seismic Category I in Table 2.4.22-1 can withstand seismic design basis loads without loss of safety function.	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 2.4.22-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment listed as Seismic Category I in Table 2.4.22-1 using analytical assumptions, or under conditions, which bound the O3.11-Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.4.22-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.4.22-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the equipment listed as Seismic Category I in Table 2.4.22-1 can withstand seismic design basis loads without loss of safety function.

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Table 2.4.22-3—Radiation Monitoring System ITAAC (2 Sheets)

03.11-33 Inspections, Tests, **Commitment Wording Analyses Acceptance Criteria** 6.1 Components in Table 2.4.22a. Type tests or type tests a. Environmental 2, that are designated as and analysis will be Qualification Data harsh environment, will performed to Packages (EQDP) exist perform the function listed in demonstrate the ability and conclude that the Table 2.4.22-1 in the of the components components listed as environments that exist listed as harsh harsh environment in during and following design environment in Table Table 2.4.22-2 can basis events. Electrical 2.4.22-2 to perform the perform the function drivers for equipment listed function listed in Table listed in Table 2.4.22-1 in Table 2.4.22-2 for harsh 2.4.22-1 for the during and following 03.11-33 environment can perform the environmental design basis events safety function in Table conditions that could including the time 2.4.22-1 following exposure required to perform the occur during and to the design basis following design basis listed function.a. environments for the time Type tests, The Class 1E events.a. required. tests, analyses or a equipment listed for combination of tests harsh environment in and analyses will be Table 2.4.22-2 can performed to perform the function listed in Table 2.4.22-1 demonstrate the ability of the equipment listed before and during for harsh environment design basis accidents in Table 2.4.22-2 to for the time required to perform the function perform the listed listed in Table 2.4.22-1 function. for the environmental conditions that could occur before and during a design basis accident.



Table 2.4.22-3—Radiation Monitoring System ITAAC (2 Sheets)

Commitment Wordin	Inspections, Tests, ag Analyses	Acceptance Criteria
03.11-3	b. Components listed as harsh environment in Table 2.4.22-2 will be inspected to verify installation in accordance with the construction drawings including the associat wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b.—For equipment listed for harsh environment in Table 2.4.22-2, an inspection will be performed of the as- installed Class 1E equipment and the associated wiring, cables and termination	components listed in Table 2.4.22-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes that the as- installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.4.22-2 for harsh environment conform with the design.
7.1 Containment High Ra Dose Rate Monitors li Table 2.4.22-1 initiate Reactor Building air filtration isolation upor receipt of high radioad levels.	sted in verify that the Reactor Building air filtration is isolated upon radiation levels exceeding a preset	Dose Rate Monitors listed in Table 2.4.22-1 initiate Reactor Building air

Next File



Table 2.5.4-4—Emergency Diesel Generator ITAAC (7–10 Sheets)



Table 2.6.1-3—Main Control Room Air Conditioning System ITAAC (4-5_Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
		b. Inspections will be conducted on the equipment identified in Table 2.6.1-1 as ASME AG-1 to verify that the equipment is installed as specified on the construction drawings.	b. Equipment identified in Table 2.6.1-1 as ASME AG-1 has been installed as specified on the construction drawings.
		c. Testing of the equipment identified in Table 2.6.1-1 as ASME AG-1 will be performed per ASME AG-1 testing requirements.	e. Equipment identified in Table 2.6.1-1 as ASME AG-1 has been tested per ASME AG-1 testing requirements.
3.2	Equipment listed in Table 2.6.1-1can perform the function listed in Table 2.6.1-1 under system operating design basis conditions.	Tests will be performed.	Equipment listed in Table 2.6.1-1 performs the function listed in the table under system operating design basis conditions.
3.3	Components identified as Seismic Category I in Table 2.6.1-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.1-1. Equipment identified as Seismic Category I in Table 2.6.1-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.6.1-1.	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 2.6.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.6.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.1-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.1-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.6.1-1 can withstand seismic design basis loads without loss of safety function.



Table 2.6.3-3—Annulus Ventilation System ITAAC (4 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
Seismic Category I in Table 2.6.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.3-1. Equipment identified as Seismic Category I in Table 2.6.3- 1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.6.3-1.	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 2.6.3-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.6.3-1 using analytical assumptions, or under 03.11 conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.3-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.3-1 including the time required to perform the listed function.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.6.3-1 can withstand seismic design basis loads without loss of safety function.
	b. Inspections will be performed of the Seismic Category I components identified in Table 2.6.3-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the as- installed Seismic Category I equipment listed in Table 2.6.3-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.6.3-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspection reports exist and conclude that the asinstalled Seismic Category I equipment listed in Table 2.6.3-1 including anchorage is installed as specified on the construction drawings.



Table 2.6.3-3—Annulus Ventilation System ITAAC (4 Sheets)

03.11-33		
Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
6.1 Components in Table 2.6.3-2, that are designated as harsh environment, will perform the function listed in Table 2.6.3-1 in the environments that exist during and following design basis events. Electrical drivers for equipment listed in Table 2.6.3-2 for harsh environment can perform the safety function in Table 2.6.3-1 following exposure to the design basis environments for the time required.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.6.3-2 to perform the function listed in Table 2.6.3-1 for the 03.11-33 environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.6.3-2 to perform the functions listed in Table 2.6.3-1 for the environmental conditions that could occur before and during design basis accidents.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.6.3- 2 can perform the function listed in Table 2.6.3-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.6.3-2 can perform functions listed in Tables 2.6.3-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.6.3-3—Annulus Ventilation System ITAAC (4 Sheets)

Commit	ment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.6.3-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.6.3-2 an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.6.3-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes that the as-installed Class 1E equipment and associated wiring, cables and terminations as listed in Table 2.6.3-2 for harsh environment conform to the design.
negati the int	VS provides a ve pressure between her and outer himment shells during hated accidents.	Tests will be performed on the capability of the system to provide a negative pressure between the inner and outer containment shells during postulated accidents.	The AVS provides a negative pressure of at least 0.25 inches water gauge within 305 seconds from initiation of signal.
contai signal action	receipt of nment isolation the following s occur atically:	A test will be performed to verify that upon receipt of containment isolation signal, the following actions occur automatically:	A test confirms that upon receipt of containment isolation signal, the following actions occur automatically within 60 seconds:
opi clo dai 2.6	lation of the normal cration train by sing the isolation npers listed in Table .3-1 for Normal cration Train.	a. The normal operation train isolates by closing the isolation dampers listed in Table 2.6.3-1 for Normal Operation Train.	a. The normal operation train is isolated by closing the isolation dampers listed in Table 2.6.3-1 for Normal Operation Train.



Table 2.6.4-3—Fuel Building Ventilation System ITAAC (4 Sheets)

Commitment	Wording	Inspections, Tests, Analyses	Acceptance Criteria
design basis lo loss of the fund Table 2.6.4-1.1 identified as So I in Table 2.6.4	chstand seismic ads without a ction listed in Equipment cismic Category 1-1 can mic design basis oss of safety	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 2.6.4-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.6.1-1 using analytical 03.11-33 assumptions, or under conditions, which bound the Seismic Category I design	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.4-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.4-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.6.4-1 can withstand seismic design basis loads without loss of safety function.
		b. Inspections will be performed of the Seismic Category I components identified in Table 2.6.4-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the as- installed Seismic Category I equipment listed in Table 2.6.4-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.6.4-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.6.4-1 including anchorage is installed as specified on the construction drawings.



Table 2.6.4-3—Fuel Building Ventilation System ITAAC (4 Sheets)

03.11-33 Inspections, Tests, **Commitment Wording Analyses Acceptance Criteria** 6.1 Components in Table 2.6.4-2. a. Type tests or type tests and a. Environmental Qualification that are designated as harsh analysis will be performed Data Packages (EQDP) environment, will perform the to demonstrate the ability of exist and conclude that the function listed in Table 2.6.4-1 the components listed as components listed as harsh in the environments that exist harsh environment in Table environment in Table 2.6.4during and following design 2.6.4-2 to perform the 2 can perform the function basis events. Electrical drivers function listed in Table listed in Table 2.6.4-1 for equipment listed in Table 2.6.4-1 for the **03.11-33** during and following design 2.6.4-2 for harsh environment environmental conditions basis events including the can perform the safety that could occur during and time required to perform the function in Table 2.6.4-1 following design basis listed function.a. following exposure to the events.a. Type tests, Class IE equipment listed design basis environments for for harsh environment in tests, analyses or a the time required. 03.11-33 combination of tests and Table 2.6.4-2 can perform analyses will be performed the function listed in Tables to demonstrate the ability of 2.6.4-1 before and during the equipment listed for design basis accidents for harsh environment in Table the time required to perform 2.6.4-2 to perform the the listed function. function listed in Table 2.6.4-1 for the environmental conditions that could occur before and during a design basis accident.



Table 2.6.4-3—Fuel Building Ventilation System ITAAC (4 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33 →	b. Components listed as harsh environment in Table 2.6.4-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.6.4-2 an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.6.4-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes that the as-installed Class 1E equipment and associated wiring, cables, and termination as listed in Table 2.6.4-2 for harsh environment conform with the design.
7.1	The FBVS maintains a negative pressure relative to the outside environment in the Fuel Building during normal operation.	Tests will be performed on the capability of the FBVS to maintain a negative pressure relative to the outside environment in the Fuel Building during normal operation.	The FBVS maintains a negative pressure of at least 0.25 inches water gauge relative to the outside environment in the Fuel Building during normal operation.
7.2	Upon receipt of a containment isolation signal or high radiation alarm signal in the Reactor Building, the FB is isolated from the NABVS by automatically closing the air supply and exhaust isolation dampers listed in Table 2.6.4-1 for Fuel Building Isolation.	A test will be performed to verify that upon receipt of a containment isolation signal or high radiation alarm signal in the Reactor Building, the FB is isolated from the NABVS by automatically closing the air supply and exhaust isolation dampers listed in Table 2.6.4-1 for Fuel Building Isolation.	A test confirms that upon receipt of containment isolation signal or high radiation alarm signal in the Reactor Building, the FB is isolated from the NABVS by automatically closing the air supply and exhaust isolation dampers listed in Table 2.6.4-1 for Fuel Building Isolation within 60 seconds.



Table 2.6.6-3—Safeguard Building Controlled-Area Ventilation System ITAAC (6 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.3 Components identified as Seismic Category I in Table 2.6.6-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.6-1. Equipment identified as Seismic Category I in Table 2.6.6-1 ean withstand seismic design basis loads without loss of safety function as listed in Table 2.6.6-1.	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 2.6.6-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be O3.11- performed on the equipment designated as Seismic Category I in Table 2.6.6-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.6-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.6-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.6.6-1 can withstand seismic design basis loads without loss of safety function.
	b. Inspections will be performed of the Seismic Category I components identified in Table 2.6.6-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the asinstalled Seismic Category I equipment listed in Table 2.6.6-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.6.6-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.6.6-1 including anchorage is installed as specified on the construction drawings.



Table 2.6.6-3—Safeguard Building Controlled-Area Ventilation System ITAAC (6 Sheets)

	03.11	-33		
	Commitment Wording	7	Inspections, Tests, Analyses	Acceptance Criteria
6.1	Components in Table 2.6.6- 2, that are designated as harsh environment, will perform the function listed in Table 2.6.6-1 in the environments that exist during and following design basis events. Electric 03.11-3 drivers for equipment listed in Table 2.6.6-2 for harsh environment can perform the safety function in Table 2.6.6-1 following exposure to the design basis environments for the time required.		Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.6.6-2 to perform the function listed in Table 2.6.6-1 for the 03.11-33 environmental conditions that could occur during and following design basis eventsa. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.6.6-2 to perform the functions listed in Table 2.6.6-1 for the environmental conditions that could occur before and during design basis accidents.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.6.6- 2 can perform the function listed in Table 2.6.6-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.6.6-2 can perform functions listed in Tables 2.6.6-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.6.6-3—Safeguard Building Controlled-Area Ventilation System ITAAC (6 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.6.6-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.6.6-2 an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.6.6-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes that the as-installed Class 1E equipment and associated wiring, cables and terminations as listed in Table 2.6.6-2 for harsh environment conform to the design.
7.1	The SBVS maintains a negative pressure relative to the outside environment in the hot mechanical areas of the Safeguard Buildings during normal operation.	Tests will be performed on the capability of the SBVS to maintain a negative pressure relative to the outside environment in the hot mechanical areas of the Safeguard Buildings during normal operation.	The SBVS maintains a negative pressure of at least 0.25 inches of water gauge relative to the outside environment in the hot mechanical areas of the Safeguard Buildings during normal operation.



Table 2.6.7-3—Electrical Division of Safeguard Building Ventilation System ITAAC (3 Sheets)

Commitm	ent Wording		Inspections, Tests, Analyses		Acceptance Criteria
Seismic C 2.6.7-1 car design bas loss of the Table 2.6. identified Category ean withst basis loads	nts identified as ategory I in Table n withstand seismic sis loads without a function listed in 7-1. Equipment as Seismic I in Table 2.6.7-1 and seismic design s without loss of ection as listed in 7-1.	<u>a.</u>	Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Table 2.6.7-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the O3.11-3 equipment designated as Seismic Category I in Table 2.6.7-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	7	Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.7-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.7-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.6.7-1 can withstand seismic design basis loads without loss of safety function.



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

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
		b. Inspections will be conducted on the equipment identified in Table 2.6.8-2 as ASME AG-1 to verify that the equipment is installed as specified on the construction drawings.	b. Equipment identified in Table 2.6.8-2 as ASME AG-1 has been installed as specified on the construction drawings
		c. Testing of the equipment identified in Table 2.6.8-2 as ASME AG-1 will be performed per ASME AG-1 testing requirements.	e. Equipment identified in Table 2.6.8-2 as ASME AG-1 has been tested per ASME AG-1 testing requirements.
3.3	Equipment listed in Tables 2.6.8-1 and 2.6.8-2 can perform the function listed in Tables 2.6.8-1 and 2.6.8-2 under system operating design basis conditions.	Tests will be performed.	Equipment listed in Tables 2.6.8-1 and 2.6.8-2 performs the function listed in the table under system operating design basis 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.Equipment identified as Seismic Category I in Tables 2.6.8-1 and 2.6.8-2 can withstand seismic design basis loads without loss of safety function as listed in Tables 2.6.8-1 and 2.6.8-2.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the components identified as Seismic Category I in Tables 2.6.8-1 and 2.6.8-2 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the 03.11-33 equipment designated as Seismic Category I in Tables 2.6.8-1 and 2.6.8-2 using analytical	equipment listed in Tables 2.6.8-1 and 2.6.8-2 can withstand seismic design basis loads without loss of
		assumptions, or under conditions, which bound the Seismic Category I design requirements.	safety function.



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

	03.11-3	33			
С	ommitment Wording	N	Inspections, Tests, Analyses		Acceptance Criteria
	Components in Table 2.6.8-3, that are designated as harsh environment, will perform the function listed in Tables 2.6.8-1 and 2.6.8-2 in the environments that exist during and following design basis events. Electrical drivers for equipment listed in Table 2.6.8-3 for harsh environment can perform the safety function in Tables 2.6.8-1 and 2.6.8-2 following exposure to the design basis environments for the time required.	<u>a.</u>	Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.6.8-3 to perform the function listed in 03.11. Tables 2.6.8-1 and 2.6.8-2 for the environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.6.8-3 to perform the function listed in Tables 2.6.8-1 and 2.6.8-2 for the environmental conditions that could occur before and during a design basis accident.	7	Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.6.8-3 can perform the function listed in Tables 2.6.8-1 and 2.6.8-2 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.6.8-3 can perform the function listed in Tables 2.6.8-1 and 2.6.8-2 before and during design basis accidents for the time required to perform the listed function.



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

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33 →	b. Components listed as harsh environment in Table 2.6.8-3 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and of the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.6.8-3, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.6.8-3 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes that the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.6.8-3 for harsh environment conform with the design.
7.1	The CBVS low flow purge exhaust subsystem exhausts through a CBVS iodine filtration train.	Tests will be performed on the capability of the low flow purge exhaust subsystem to exhaust through a CBVS iodine filtration train.	The CBVS exhausts through a CBVS iodine filtration train when the CBVS low flow purge exhaust subsystem is operating.
7.2	Containment isolation valves listed in Table 2.6.8-1 close within the containment isolation response time following initiation of a containment isolation signal.	Tests will be performed to demonstrate the ability of the containment isolation valves listed in Table 2.6.8 1 to close within the containment isolation response time following initiation of a containment isolation signal.	Containment isolation valves listed in Table 2.6.8-1 close within 10 seconds following initiation of a containment isolation signal.

Next File



Table 2.6.9-3—Emergency Power Generating Building Ventilation System ITAAC (3 Sheets)

Commitment Wordi	Inspections, Te	ests, Acceptance Criteria
3.2 Equipment listed in T 2.6.9-1 can perform to function listed in Tab 2.6.9-1 under system operating design basic conditions.	he le	d. Equipment listed in Table 2.6.9-1 performs the function listed in the table under system operating design basis conditions.
3.3 Components identifies Seismic Category I in 2.6.9-1 can withstand seismic design basis I without a loss of the function listed in Tab 2.6.9-1. Equipment identified as Seismic Category I in Table 2 can withstand seismic design basis loads with loss of safety function listed in Table 2.6.9-1	combination of type and analyses will be and analyses will be performed on the components identification in the second conditions, or unconditions, which be seemic Category I requirements.a. tests, analyses or a	reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.9-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.9-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.6.9-1 can withstand seismic design basis loads without loss of safety function.



Table 2.6.13-3—Essential Service Water Pump Building Ventilation System ITAAC (3 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
Seismic Category I in Table 2.6.13-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.13-1.Equipment identified as Seismic Category I in Table 2.6.13-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.6.13-1.	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 2.6.13-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic 03.11-Category I in Table 2.6.13-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.6.13-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.6.13-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.6.13-1 can withstand seismic design basis loads without loss of safety function.
	b. Inspections will be performed of the Seismic Category I components identified in Table 2.6.13-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspections will be performed of the as- installed Seismic Category I equipment listed in Table 2.6.13-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.6.13-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspection reports exist and conclude that the asinstalled seismic Category I equipment listed in Table 2.6.13-1 including anchorage is installed as specified on the construction drawings.



Table 2.7.1-3—Component Cooling Water System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
3.2	Check valves listed in Table 2.7.1-1 will function as listed in Table 2.7.1-1.	Tests will be performed for the operation of the check valves listed in Table 2.7.1-1.	The check valves listed in Table 2.7.1-1 perform the functions listed in Table 2.7.1-1.
3.3	Deleted.	Deleted.	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. Equipment identified as Seismic Category I in Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.7.1-1.	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 2.7.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.7.1-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function.



Table 2.7.1-3—Component Cooling Water System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.1	The components designated as Class 1E in Table 2.7.1-2 are powered from the Class 1E division as listed in Table 2.7.1-2 in a normal or alternate feed condition.	a. Testing will be performed for components designated as Class 1E in Table 2.7.1-2 by providing a test signal in each normally aligned division.	a. The test signal provided in the normally aligned division is present at the respective Class 1E component identified in Table 2.7.1-2.
		b. Testing will be performed for components designated as Class 1E in Table 2.7.1-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.7.1-2.
5.2	Valves listed in Table 2.7.1-2 fail as-is on loss of power. 03.11-33	Testing will be performed for the valves listed in Table 2.7.1-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.7.1-2 fail as-is.
6.1	Components in Table 2.7.1- 2, that are designated as harsh environment, will perform the function listed in Table 2.7.1-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table 2.7.1-2 that are designated as harsh environment will perform the function listed in Table 2.7.1-1 in the 03.11-33 environments that exist before and during the time required to perform their safety function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.7.1-2 to perform the function listed in Table 2.7.1-1 for the 03.11-33 environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.7.1-2 to perform the function listed in Table 2.7.1-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.7.1- 2 can perform the function listed in Table 2.7.1-1 during and following design basis events including the time required to perform the listed function.a. A report exists and concludes that the Class 1E equipment listed for harsh environment in Table 2.7.1-2 can perform the function listed in Table 2.7.1-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.7.1-3—Component Cooling Water System ITAAC (7 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components isted as harsh environment in Table 2.7.1-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.7.1-2, an inspection will be performed of the as-installed Class 1E equipment and the associated wiring, cables and terminations.	Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.7.1-2 for harsh environment conform to the design.
7.1	The CCWS heat exchanger as listed in Table 2.7.1-1 has the capacity to transfer the design heat load to the ESWS system.	Tests and analyses will be performed to demonstrate the capability of the CCWS heat exchanger as listed in Table 2.7.1-1 to transfer the heat load to the ESWS.	A report exists and concludes that the ESWS has the capacity to remove the design heat load via the heat exchanger listed in Table 2.7.1-1. The CCW heat exchanger satisfies the required heat transfer of an equivalent combined product of the heat exchanger area of 39963 ft ² and the overall heat transfer coefficient of 360 BTU/hr*ft ² *°F.
7.2	The pumps listed in Table 2.7.1-1 have sufficient NPSHA.	Testing and analyses will be performed to verify NPSHA for pumps listed in Table 2.7.1-1.	A report exists and concludes that tThe pumps listed in Table 2.7.1-1 have NPSHA that is greater than net positive suction head required (NPSHR) at system run-out flow with consideration for minimum allowable surge tank water level (as corrected to account for actual temperature and atmospheric conditions).



Table 2.7.2-3—Safety Chilled Water System ITAAC (5 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
Seismic Category I in Table 2.7.2-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.7.2-1.Equipment identified as Seismic Category 1 in Table 2.7.2- 1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.7.2-1.	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 2.7.2-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.7.2-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.7.2-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.7.2-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 2.7.2-1 can withstand seismic design basis loads without loss of safety function.
	b. Inspections will be performed of the Seismic Category I components identified in Table 2.7.2-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspections will be performed of the as-installed Seismic Category I equipment listed in Table 2.7.2-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.7.2-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspection reports exist and conclude that the asinstalled Seismic Category I equipment listed in Table 2.7.2-1 including anchorage is installed as specified on the construction drawings.



Table 2.7.2-3—Safety Chilled Water System ITAAC (5 Sheets)

	03.11-3		<u> </u>
	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
6.1	Components in Table 2.7.2-2, that are designated as harsh environment, will perform the function listed in Table 2.7.2-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.7.2-2 to perform the function listed in Table 2.7.2-1 for the 03.11-33 environmental conditions that could occur during and following design basis	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.7.2-2 can perform the function listed in Table 2.7.2-1 during and following design basis events including the time required to perform the listed function.a. A report exists
	2.7.2-2 that are designated	events.a. Type tests,	and concludes that the Class
	as harsh environment will perform the function listed in Table 2.7.2-1 in the environments that exist before and during the time required to perform their safety function.	tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.7.2-2 to perform the function listed in Table 2.7.2-1 for the environmental conditions that could occur before and during a design basis accident.	1E equipment listed for harsh environment in Table 2.7.2-2 can perform the function listed in Table 2.7.2-1 before and during design basis accidents for the time required to perform the listed function.
	03.11-33	b. Components listed as harsh environment in Table 2.7.2-2 will be inspected to verify installation in accordance with the construction of the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed as qualified for harsh environment in Table 2.7.2-2 an inspection will be performed of the as-installed Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.7.2-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes the as-installed Class 1E equipment and the associated wiring, cables, and terminations as listed in Table 2.7.2-2 for harsh environment conform to the design.



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

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
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. Equipment identified as Seismic Category I in Table 2.7.5-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.7.5-1.	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 2.7.5-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.7.5-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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 including the time required to perform the listed function.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.7.5-1 can withstand seismic design basis loads without loss of safety function.

03.11-33



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

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
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.	a. Testing will be performed for components designated as Class 1E in Table 2.7.5-2 by providing a test signal in each normally aligned division.	a. The test signal provided in the normally aligned division is present at the respective Class 1E component identified in Table 2.7.5-2.
	03.11-3	b. Testing will be performed for components designated as Class 1E in Table 2.7.5-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.7.5-2.
5.2	Valves listed in Table 2.7.5. 2 fail as-is on loss of power.	Testing will be performed for the valves listed in Table 2.7.5-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.7.5-2 fail as-is.
6.1	Components in Table 2.7.5-2, that are designated as harsh environment, will perform the function listed in Table 2.7.5-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table 2.7.5-2 that are designated as harsh environment will perform the function listed in Table 2.7.5-1 in the environments that exist before and during the time required to perform their safety function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.7.5-2 to perform the function listed in Table 2.7.5-1 for the 03.11-33 environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.7.5- 2 can perform the function listed in Table 2.7.5-1 during and following design basis events including the time required to perform the listed function.a. A report exists and concludes that the Class 1E equipment listed for harsh environment in Table 2.7.5-2 can perform the function listed in Table 2.7.5-1 before and during design basis accidents for the time required to perform the listed function.



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

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.7.5-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.7.5-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components isted in Table 2.7.5-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.7.5-2 for harsh environment conform to the design.
7.1	The FWDS includes two separate fresh water storage tanks.	An inspection of the as-built capacity of the fire water storage tanks will be performed.	Each fire water storage tank is of greater than or equal to 300,000 gallons capacity.
7.2	The FWDS pumps consist of at least one electric motor-driven pump and one diesel engine-driven pump.	a. An inspection will be performed to verify that at least one electric motor-driven pump and one diesel engine-driven pump exists.	a. At least one electric motor-driven pump and one diesel engine-driven pump exists.
		b. An analysis will be performed.	b. Analysis reports exist and conclude a sufficient number of pumps to provide 100% capacity are available assuming failure of the largest pump or loss of offsite power.
7.3	FWDS pumps have sufficient NPSHA.	Testing and analyses will be performed to verify NPSHA for FWDS pumps.	The FWDS pumps have NPSHA that is greater than net positive suction head required (NPSHR) at system run-out flow.



Table 2.7.11-3—Essential Service Water System ITAAC (6 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. Equipment identified as Seismic Category I in Table 2.7.11-1 can withstand	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	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.7.11-1 can withstand seismic design basis loads without a loss of the function listed in
	seismic design basis loads without loss of safety function as listed in Table 2.7.11-1.	requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on	Table 2.7.11-1 including the time required to perform the listed function.a. Tests/analysis
		the equipment designated as Seismic Category I in Table 2.7.11-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements	reports exist and conclude that the Seismic Category I equipment listed in Table 2.7.11-1 can withstand seismic design basis loads without loss of safety function.
		b. Inspections will be performed of the Seismic Category I components identified in Table 2.7.11-1 to verify that the components, including anchorage, are installed as specified on the construction	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.7.11-1, including anchorage, are installed as specified on the construction drawings and
		drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the as-installed	deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude
		Seismic Category I equipment listed in Table 2.7.11-1 to verify that the equipment including anchorage is installed as specified on the construction drawings	that the as-installed Seismic Category I equipment listed in Table 2.7.11-1 is installed as specified on the construction drawings.



Table 2.8.2-3—Main Steam System MSS-ITAAC (6 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
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.Equipment identified as Seismic Category I in Table 2.8.2-1 ean withstand seismic design basis loads without loss of safety function as listed in Table 2.8.2-1.	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.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.8.2-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. b. Inspections will be performed of the Seismic Category I components identified 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 seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the asinstalled Seismic Category I equipment listed in Table 2.8.2-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.8.2-1 can withstand seismic design basis loads without loss of safety function. 1-33 b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.8.2-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as- installed Seismic Category I equipment listed in Table 2.8.2-1 including anchorage is installed as specified on the construction drawings.



Table 2.8.2-3—Main Steam System MSS ITAAC (6 Sheets)

103.11-33 Inspections, Tests, **Commitment Wording Analyses Acceptance Criteria** Components in Table 2.8.2-6.1 Type tests or type tests and a. Environmental Qualification 2, that are designated as analysis will be performed Data Packages (EQDP) harsh environment, will to demonstrate the ability of exist and conclude that the perform the function listed components listed as harsh the components listed as in Table 2.8.2-1 in the harsh environment in Table environment in Table 2.8.2environments that exist 2.8.2-2 to perform the 2 can perform the function during and following function listed in Table listed in Table 2.8.2-1 03.11-33 03.11-33 design basis 2.8.2-1 for the during and following design events..Components listed environmental conditions basis events including the as Class 1E in Table 2.8.2-2 that could occur during and time required to perform the that are designated as harsh following design basis listed function.a. —The environment will perform events..a. Type tests, Class 1E equipment listed the function listed in Table tests, analyses, or a for harsh environment in 2.8.2-1 in the environments combination of tests and Table 2.8.2-2 can perform that exist before and during analyses will be performed the function listed in Table the time required to to demonstrate the ability of 2.8.2-1 before and during design basis accidents for perform their safety the equipment listed for function. harsh environment in Table the time required to perform 2.8.2-2 to perform the the listed function. function listed in Table 2.8.2-1 for the environmental conditions that could occur before and during a design basis accident.



Table 2.8.2-3—Main Steam System MSS-ITAAC (6 Sheets)

(Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
	03.11-33	b. Components listed as harsh environment in Table 2.8.2-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.8.2-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables, and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.8.2-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.8.2-2 for harsh environment conform with the design.
7.1	Class 1E valves listed in Table 2.8.2-2 perform the function listed in Table 2.8.2-1 under system operating conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.8.2-2 to change position as listed in Table 2.8.2-1 under system operating design conditions.	The as-installed valve changes position as listed Table 2.8.2-1 under system operating design conditions.
7.2	Each of the two MSSVs per main steam line provide relief capacity for the main steam system.	Testing and analysis will be performed.	The rated capacity of each MSSV is $\geq 1,422,073$ lbm/hr. The MSSV per main steam line with the lower pressure setting delivers that rated capacity at ≤ 1504 psig. The MSSV per main steam line with the higher pressure setting delivers that rated capacity at ≤ 1535 psig.
7.3	MSRTs provide relief capacity.	Testing and analysis will be performed.	Each MSRT provides relief capacity ≥ 2,844,146 lbm/hr at valve inlet static pressure of 1370 psig. With pressure measurement uncertainty of 30 psi, the maximum relieving pressure is 1400 psig.



Table 2.8.6-3—<u>Main Feedwater System</u> MFWS-ITAAC (5 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
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.Equipment identified as Seismic Category I in Table 2.8.6-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.8.6-1.	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.a. Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2.8.6-1 using analytical using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.8.6-1 can withstand seismic design basis loads without loss of safety function.
	b. Inspections will be performed of the Seismic Category I components identified 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 seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the as- installed Seismic Category I equipment listed in Table 2.8.6-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.8.6-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the asinstalled Seismic Category I equipment listed in Table 2.8.6-1 including anchorage is installed as specified on the construction drawings.



6.1

Table 2.8.6-3— Main Feedwater System MFWS ITAAC (5

03.11-33 Sheets)

Commitment Wording

Components in Table 2.8.6-2, that are designated as harsh environment, will perform the function listed in Table 2.8.6-1 in the environments that exist during and following design basis 03.11-33 events. Components listed as Class 1E in Table 2.8.6-2 that are designated as harsh environment will perform the function listed in Table 2.8.6-1 in the environments that exist before and during the time required to perform their safety function.

Inspections, Tests, Analyses

a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.8.6-2 to perform the function listed in Table 2.8.6-1 for the 103.11-33 environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses, or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.8.6-2 to perform the function listed in Table 2.8.6-1 for the environmental conditions that could occur before and during a design basis accident.

Acceptance Criteria

a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.8.6-2 can perform the function listed in Table 2.8.6-1 during and following design basis events including the time required to perform the listed function.a. The Class 1E equipment listed for harsh environment in Table 2.8.6-2 can perform the function listed in Table 2.8.6-1 before and during design basis accidents for the time required to perform the listed function.



Table 2.8.6-3—<u>Main Feedwater System</u> MFWS-ITAAC (5 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
03.11-33	b. Components listed as harsh environment in Table 2.8.6-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.8.6-2, an inspection will be performed of the asinstalled Class 1E equipment and the associated wiring, cables and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.8.6-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. — Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.8.6-2 for harsh environment conform with the design.
7.1 Class 1E valves listed in Table 2.8.6-2 perform the function listed in Table 2.8.6-1 under system operating conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.8.6-2 to change position as listed in Table 2.8.6-1 under system operating design-conditions.	The as-installed valve changes position as listed Table 2.8.6-1 under system operating design conditions.



Table 2.8.7-3—<u>Steam Generator Blowdown System</u> <u>SGBS</u> ITAAC (5 Sheets)

Com	nmitment Wording	Inspections, Tests, Analyses		Acceptance Criteria
Seis 2.8. desi loss Tab ider Lin with load fund	mponents identified as smic Category I in Table 7-1 can withstand seismic and basis loads without a softhe function listed in the 2.8.7-1. Equipment attified as Seismic Category Table 2.8.7-1 can astand seismic design basis as without loss of safety etion as listed in Table 7-1.	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.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 2. 03.11- using analytical assumptions, or under conditions, which		Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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.a. Tests/analysis reports exists and conclude that the Seismic Category I equipment listed in Table 2.8.7-1 can withstand seismic design basis loads
		bound the Seismic Category I design requirements. b. Inspections will be performed of the Seismic Category I components identified 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 seismic qualification reports (SQDP, EQDP, or analyses).b. — Inspections will be performed of the as-installed Seismic Category I equipment listed in Table 2.8.7-1 to verify that the equipment including anchorage is installed as specified on the construction drawings.	<u>b.</u>	without loss of safety function. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.8.7-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as-installed Seismic Category I equipment listed in Table 2.8.7-1 including anchorage is installed as specified on the construction drawings.



Table 2.8.7-3—<u>Steam Generator Blowdown System</u> <u>SGBS</u> ITAAC (5 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
		b. Testing will be performed for components designated as Class 1E in Table 2.8.7-2 by providing a test signal in each division with the alternate feed aligned to the divisional pair.	b. The test signal provided in each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.8.7-2.
5.2	Valves listed in Table 2.8.7-2 fail as-is on loss of power. 03.11-33	Testing will be performed for the valves listed in Table 2.8.7-2 to fail as-is on loss of power.	Following loss of power, the valves listed in Table 2.8.7-2 fail as-is.
6.1	Components in Table 2.8.7-2, that are designated as harsh environment, will perform the function listed in Table 2.8.7-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table 2.8.7-2 that are designated as harsh environment will perform the function listed in Table 2.8.7-1 in the environments that exist before	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.8.7-2 to perform the function listed in Table 2.8.7-1 for the environmental conditions that could occur during and following design basis events.a. Type tests, 133 tests, analyses, or a combination of tests and	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.8.7-2 can perform the function listed in Table 2.8.7-1 during and following design basis events including the time required to perform the listed function.a. The
	and during the time required to perform their safety function.	analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 2.8.7-2 to perform the function listed in Table 2.8.7-1 for the environmental conditions that could occur before and during a design basis accident.	Class 1E equipment listed for harsh environment in Table 2.8.7-2 can perform the function listed in



Table 2.8.7-3—<u>Steam Generator Blowdown System SGBS</u>
ITAAC (5 Sheets)

	(Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
		03.11-33	b. Components listed as harsh environment in Table 2.8.7-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.b. For equipment listed for harsh environment in Table 2.8.7-2, an O3.11-3 inspection will be performed of the as-installed Class 1E equipment and the associated wiring, cables, and terminations.	b. Inspection reports exists and conclude that the components listed in Table 2.8.7-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.b. Inspection concludes the as-installed Class 1E equipment and associated wiring, cables, and terminations as listed in Table 2.8.7-2 for harsh environment conform with the design.
 	7.1	Class 1E valves listed in Table 2.8.7-2 perform the function listed in Table 2.8.7-1 under system operating conditions.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the valves listed in Table 2.8.7-2 to change position as listed in Table 2.8.7-1 under system operating design conditions.	The as-installed-valve changes position as listed Table 2.8.7-1 under system operating design conditions.
	7.2	Containment isolation valves listed in Table 2.8.7-1 close within the containment isolation response time following initiation of a containment isolation signal.	Tests will be performed to demonstrate the ability of the containment isolation valves listed in Table 2.8.7-1 to close within the containment isolation response time following initiation of a containment isolation signal.	The containment isolation valves listed in Table 2.8.7-1 close within60 seconds following initiation of a containment isolation signal.



<u>Table 2.9.3-3—Gaseous Waste Processing System ITAAC (5 Sheets)</u>

<u> </u>	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.1	The functional arrangement of the GWPS is as shown in Figure 2.9.3-1.	Inspections of the as-built GWPS will be performed.	The as-built GWPS conforms with the functional arrangement as shown in Figure 2.9.3-1.
2.2	The location of the GWPS equipment is as listed in Table 2.9.3-1.	Inspections will be performed to verify equipment locations.	The equipment listed in Table 2.9.3-1 is located as listed in Table 2.9.3-1.
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.	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 2.9.3-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements. 03.11-33	 a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified 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 including the time required to perform the listed function. b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 2.9.3-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).
3.2	Portions of the GWPS piping shown as ASME Code Section III in Figure 2.9.3-1 are designed in accordance with ASME Code Section III requirements.	Inspections of the ASME Code Section III Design Reports (NCA-3550) and associated reference documents will be performed.	ASME Code Section III Design Reports (NCA-3550) exist and conclude that portions of the GWPS piping shown as ASME Code Section III in Figure 2.9.3-1 comply with ASME Code Section III requirements.



<u>Table 2.9.3-3—Gaseous Waste Processing System ITAAC (5 Sheets)</u>

<u> </u>	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
<u>5.1</u>	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.	 a. Testing will be performed for components designated as Class 1E in Table 2.9.3-2 by providing a test signal in each normally aligned division. b. Testing will be performed 	a. The test signal provided in the normally aligned division is present at the respective Class 1E component identified in Table 2.9.3-2. b. The test signal provided in
	03.11-3	for components designated as Class 1E in Table 2.9.3-	each division with the alternate feed aligned to the divisional pair is present at the respective Class 1E component identified in Table 2.9.3-2.
<u>6.1</u>	Components in Table 2.9.3-2, that are designated as harsh environment, will perform the function listed in Table 2.9.3-1 in the environments that exist during and following design basis events.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 2.9.3-2 to perform the function listed in Table 2.9.3-1 for the environmental conditions that could occur during and following design basis events.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.9.3- 2 can perform the function listed in Table 2.9.3-1 during and following design basis events including the time required to perform the listed function.
		b. Components listed as harsh environment in Table 2.9.3-2 will be inspected to verify installation in accordance with the construction drawings including the associated wiring, cables and terminations. Deviations to the construction drawings will be reconciled to the EQDP.	b. Inspection reports exists and conclude that the components listed in Table 2.9.3-2 as harsh environment has been installed per the construction drawings and any deviations have been reconciled to the EQDP.



Table 2.9.4-3—Sampling Activity Monitoring System ITAAC (2 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.1	The functional arrangement of the sampling activity monitoring system is as shown on Figure 2.9.4-1.	Inspections of the as-built system as shown on Figure 2.9.4-1 will be conducted.	The as-built sampling activity monitoring system conforms with the functional arrangement as shown in Figure 2.9.4-1.
2.2	The location of the sampling activity monitoring system equipment is as listed in Table 2.9.4-1.	An inspection will be performed of the location of the equipment listed in Table 2.9.4-1.	The equipment listed in Table 2.9.4-1 is located as listed in Table 2.9.4-1.
3.1	Components identified as Seismic Category I in Table 2.9.4-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.9.4-1. Equipment identified as Seismic Category I in Table 2.9.4-1 can withstand seismic design basis loads without loss of safety function as listed in Table 2.9.4-1.	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 2.9.4-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses, or a combination of type tests and analyses will be O3.11 performed on the equipment designated as Seismic Category I in Table 2.9.4-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 2.9.4-1 can withstand seismic design basis loads without a loss of the function listed in Table 2.9.4-1 including the time required to perform the listed function.a. Tests/analysis reports -33 exist and conclude that the Seismic Category I equipment listed in Table 2.9.4-1 can withstand seismic design basis loads without loss of safety function.



<u>Table 2.9.5-2—Nuclear Island Drain and Vent System ITAAC (2 Sheets)</u>

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.1	The location of the sump level sensors is as listed in Table 2.9.5-1.	An inspection will be performed to verify the location of the sump level sensors listed in Table 2.9.5-1.	The location of the sump level sensors is as listed in Table 2.9.5-1.
3.1	Displays listed in Table 2.9.5- 1 are retrievable in the MCR.	Tests will be performed for MCR displays listed in Table 2.9.5-1.	Displays listed in Table 2.9.5-1 are retrievable in the MCR.
3.2	The sump level sensor in a Safeguard Building trips the ESWS pump and closes the pump discharge valve in response to a flooding signal.	a. A test will be performed on the SB 1 sump level sensor (30KTE20CL001) listed in Table 2.9.5-1. b. A test will be performed on the SB 2 sump level sensor (30KTE20CL003) listed in Table 2.9.5-1. c. A test will be performed on the SB 3 sump level sensor (30KTE20CL005) listed in Table 2.9.5-1. d. A test will be performed on the SB 4 sump level sensor (30KTE20CL007) listed in Table 2.9.5-1.	a. ESWS pump 1 trips and ESWS pump 1 discharge valve closes on a SB 1 sump level signal. b. ESWS pump 2 trips and ESWS pump 2 discharge valve closes on a SB 2 sump level signal. c. ESWS pump 3 trips and ESWS pump 3 discharge valve closes on a SB 3 sump level signal. d. ESWS pump 4 trips and ESWS pump 4 discharge valve closes on a SB 4 sump level signal.
4.1	The sump level sensors designated as Class 1E in Table 2.9.5-1 are powered from the Class 1E division listed in Table 2.9.5-1.	Tests will be performed for sump level sensors designated as Class 1E in Table 2.9.5-1 by providing a test signal to the aligned Class 1E division.	The test signal provided in the aligned Class 1E division is present at the sump level sensors identified in Table 2.9.5-1.
5.1	The sump level sensors listed in Table 2.9.5-1 for EQ harsh environment can initiate an alarm in the MCR following exposure to the environments that exist during and following design basis events. O3.11-3	a Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as EQharsh environment in Table 2.9.5-1 to initiate an alarm in the MCR for the environmental conditions that could occur during and following design basis events. 03.11-33	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 2.9.5- 1 can initiate an alarm in the MCR during and following design basis events including the time required to perform the listed function.



Table 3.5-3—Containment Isolation ITAAC (6 Sheets)

3.4	Components identified as Seismic Category I in Table 3.5-1 can withstand seismic design basis loads without a	a. Type tests, analyses, or a combination of type tests	a. Seismic qualification
	loss of the function listed in Table 3.5-1. Equipment identified as Seismie Category I in Table 3.5-1 can withstand seismic design basis loads without loss of safety function as listed in Table 3.5-1.	and analyses will be performed on the components identified as Seismic Category I in Table 3.5-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.a. Type tests, analyses or a combination of type tests and analyses will be performed on the equipment designated as Seismic Category I in Table 3.5-1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	reports (SQDP, EQDP, or analyses) exist and conclude that the Seismic Category I components identified in Table 3.5-1 can withstand seismic design basis loads without a loss of the function listed in Table 3.5-1 including the time required to perform the listed function.a. Tests/analysis reports exist and conclude that the Seismic Category I equipment listed in Table 3.5-1 can withstand seismic design basis loads without loss of safety function.
3.5	Deleted.	b. Inspections will be performed of the Seismic Category I components identified in Table 3.5-1 to verify that the components, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspections will be performed of the asinstalled Seismic Category I equipment listed in Table 3.5-1 to verify that the equipment including anchorage is installed as specified on the construction drawings. Deleted.	b. Inspection reports exist and conclude that the Seismic Category I components identified in Table 3.5-1, including anchorage, are installed as specified on the construction drawings and deviations have been reconciled to the seismic qualification reports (SQDP, EQDP, or analyses).b. Inspection reports exist and conclude that the as installed Seismic Category I equipment listed in Table 3.5-1 including anchorage is installed as specified on the construction drawings.



Table 3.5-3—Containment Isolation ITAAC (6 Sheets)

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
5.5 Containment electrical penetrations are protected from fault currents that are greater than their continuous current rating.	An analysis will be performed 03.11-33	Analysis concludes for the asbuilt electrical penetration assemblies that either maximum current through the penetration assembly does not exceed their continuous current rating or the penetration assembly circuits have redundant in series protection devices which are coordinated with the protected penetration assembly's rated short-circuit thermal capacity, preventing the analyzed current from exceeding the continuous current rating of the associated electrical penetration.
6.1 Components in Table 3.5-2, that are designated as harsh environment, will perform the function listed in Table 3.5-1 in the environments that exist during and following design basis events. Components listed as Class 1E in Table 3.5-2 that are designated as harsh environment will perform the function listed in Table 3.5-1 in the environments that exist before and during the time required to perform their safety function.	a. Type tests or type tests and analysis will be performed to demonstrate the ability of the components listed as harsh environment in Table 3.5-2 to perform the function listed in Table 3.5-1 for the environmental conditions that could occur during and following design basis events.a. Type tests, tests, analyses or a combination of tests and analyses will be performed to demonstrate the ability of the equipment listed for harsh environment in Table 3.5-2 to perform the function listed in Table 3.5-1 for the environmental conditions that could occur before and during a design basis accident.	a. Environmental Qualification Data Packages (EQDP) exist and conclude that the components listed as harsh environment in Table 3.5- 2 can perform the function listed in Table 3.5-1 during and following design basis events including the time required to perform the listed function.a. A report exists and concludes that the Class 1E equipment listed for harsh environment in Table 3.5-2 can perform the function listed in Table 3.5-1 before and during design basis accidents for the time required to perform the listed function.

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Table 3.7-2—Accident Monitoring Instrumentation ITAAC (2 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.1	AMI that are credited in emergency procedures and that are not addressed by existing ITAAC are identified.	An analysis will be performed to identify those instruments that are credited in emergency procedures and that are not addressed by existing ITAAC. (divisional separation, seismic design, Class 1E power source, and environmental qualification). {{DAC}}	A report exists and provides a list of AMI that monitor type A, B, C, and D variables credited in emergency procedures and that are not addressed by existing ITAAC (divisional separation, seismic design, Class 1E power source, and environmental qualification). {{DAC}}
3.1	The AMI identified in 3.7.2.1 are provided with divisional separation.	Inspection will be performed to verify the AMI identified in 3.7.2.1 is divisionally separated.	The AMI identified in 3.7.2.1are divisionally separated.
3.2	The AMI identified in 3.7.2.1 can withstand seismic design basis loads without a loss of their function. The AMI identified in 3.7.2.1 can withstand seismic design basis loads without loss of function.	a. Type tests, analyses, or a combination of type tests and analyses will be performed on the AMI identified in 3.7.2.1 using analytical assumptions, or under conditions, which bound the seismic design requirements.a. Type tests, analyses, or a combination of type tests or analyses will be performed on the AMI identified in 3.7.2.1 using analytical assumptions, or under conditions, which bound the Seismic Category I design requirements.	a. Seismic qualification reports (SQDP, EQDP, or analyses) exist and conclude that the AMI identified in 3.7.2.1 can withstand seismic design basis loads without a loss of the function including the time required to perform the listed function.a. A report A resists and concludes that the AMI identified in 3.7.2.1 can withstand seismic design basis loads without the loss of function.

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critical equipment will not be adversely affected by electromagnetic interference (EMI) or Radio Frequency Interference (RFI) in the plant environment. EMC is addressed in the EQ program as a service condition that must be considered to address proper operation under adverse conditions for digital I&C equipment and is one of the screening criteria for the EQ list in Table 3.11-5.

3.11.1.3 Equipment Operability Times

safety functions: reactor trip, engineered safeguards actuation, post-accident monitoring, or containment isolation. These safety functions are identified for applicable equipment. For each safety function identified a period of operability has been assigned as follows: immediate operability (2 hours), short term (24 hours), medium term (4 months), or long term (1 year) (see Table 3D-2—Equipment Post-Accident Operability). The operability times for electrical and mechanical equipment listed in Table 3.10-1 and Table 3.11-1 are documented in the Equipment Qualification Data Packages (Appendix 3D, Attachment A) and the Seismic Qualification Data

Packages (Appendix 3D, Attachment F) as applicable for electromechanical assemblies

Equipment required to be environmentally qualified has one or more of the following

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3.11.2 Qualification Tests and Analysis

3.11.2.1 Environmental Qualification of Electrical Equipment

(e.g., valve and actuators, pumps, and motors).

Electrical equipment, which includes I&C, contains components associated with systems that are essential to emergency reactor shutdown, containment isolation, core cooling, containment and reactor heat removal, or are otherwise essential to preventing significant release of radioactive material to the environment.

Included in this equipment scope is:

- Equipment that performs one or more of these functions automatically.
- Equipment that is used by operators to perform these functions manually.
- Equipment whose failure can prevent the satisfactory accomplishment of one or more of the above safety functions.
- Other electrical equipment important to safety as described in 10 CFR 50.49(b)(1) and (2).
- Certain PAM equipment as described in 10 CFR 50.49(b)(3) and noted below.

The I&C design consists of four-fold redundancy from sensor to actuator:

• Physical separation in four divisions (SBs 1, 2, 3, and 4).