ArevaEPRDCPEm Resource

From: WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]
Sent: Friday, January 27, 2012 1:28 PM
To: Tesfaye, Getachew
Cc: BENNETT Kathy (AREVA); DELANO Karen (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); Miernicki, Michael
Subject: Response to U.S. EPR Design Certification Application RAI No. 508 (6005,6000,5994), FSAR Ch. 3, Supplement 3
Attachments: RAI 508 Supplement 3 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. provided a schedule for a technically correct and complete response to the three questions in RAI No. 508 on September 23, 2011. On December 1, 2011, AREVA NP submitted Supplement 1 to provide a revised schedule for Question 03.03.01-5 and Question 03.07.03-41. On January 6, 2012, AREVA NP submitted Supplement 2 to provide a complete and final response to Question 03.07.03-41.

The attached file, "RAI 508 Supplement 3 Response US EPR DC.pdf," provides a technically correct and complete final response to one (Question 03.03.01-5) of the two remaining questions.. 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 508 Question 03.03.01-5.

The following table indicates the respective pages in the response document, "RAI 508 Supplement 3 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 508 — 03.03.01-5	2	2

The schedule for providing a technically correct and complete final response to the remaining question remains unchanged as provided below.

Question #	Response Date
RAI 508 — 03.09.02-169	August 16, 2012

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: WILLIFORD Dennis (RS/NB)
Sent: Friday, January 06, 2012 11:22 AM
To: Getachew.Tesfaye@nrc.gov
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); WELLS Russell

(RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 508 (6005,6000,5994), FSAR Ch. 3, Supplement 2

Getachew,

AREVA NP Inc. provided a schedule for a technically correct and complete response to the three questions in RAI No. 508 on September 23, 2011. On December 1, 2011, AREVA NP submitted Supplement 1 to provide a revised schedule for Question 03.03.01-5 and Question 03.07.03-41.

The attached file, "RAI 508 Supplement 2 Response US EPR DC.pdf," provides a technically correct and complete final response to Question 03.07.03-41. 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 508 Question 03.07.03-41.

The following table indicates the respective pages in the response document, "RAI 508 Supplement 2 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 508 — 03.07.03-41	2	2

The schedule for providing a technically correct and complete final response to the remaining two questions has been revised as provided below.

Question #	Response Date
RAI 508 — 03.03.01-5	March 7, 2012
RAI 508 — 03.09.02-169	August 16, 2012

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: WILLIFORD Dennis (RS/NB)
Sent: Thursday, December 01, 2011 2:52 PM
To: Getachew.Tesfaye@nrc.gov
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 508 (6005,6000,5994), FSAR Ch. 3, Supplement 1

Getachew,

AREVA NP Inc. provided a schedule for a technically correct and complete response to the three questions in RAI No. 508 on September 23, 2011.

The schedule for providing a response to Questions 03.03.01-5 and 03.07.03-41 has been revised as provided below. The schedule for a response to Question 03.09.02-169 remains unchanged.

Question #	Response Date
RAI 508 — 03.03.01-5	**January 6, 2012**
RAI 508 — 03.07.03-41	**January 6, 2012**
RAI 508 — 03.09.02-169	January 6, 2012

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: WILLIFORD Dennis (RS/NB)
Sent: Friday, September 23, 2011 10:02 AM
To: Getachew.Tesfaye@nrc.gov
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 508 (6005,6000,5994), FSAR Ch. 3

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 508 Response US EPR DC.pdf," provides a schedule since a technically correct and complete response to the 3 questions cannot be provided at this time.

The following table indicates the respective pages in the response document, "RAI 508 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 508 — 03.03.01-5	2	2
RAI 508 — 03.07.03-41	3	3
RAI 508 — 03.09.02-169	4	4

A complete answer is not provided for the 3 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 508 — 03.03.01-5	December 1, 2011
RAI 508 — 03.07.03-41	December 1, 2011

Sincerely,

Dennis Williford, P.E.
U.S. EPR Design Certification Licensing Manager
AREVA NP Inc.
7207 IBM Drive, Mail Code CLT 2B
Charlotte, NC 28262
Phone: 704-805-2223
Email: Dennis.Williford@areva.com

From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Friday, August 26, 2011 8:45 AM
To: ZZ-DL-A-USEPR-DL
Cc: Chakravorty, Manas; Xu, Jim; Thomas, Brian; Wong, Yuken; Dixon-Herrity, Jennifer; Miernicki, Michael; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 508 (6005,6000,5994), FSAR Ch. 3

Attached please find the subject request for additional information (RAI). A draft of the RAI was provided to you on August 22, 2011, and on August 24, 2011, you informed us that the RAI is clear and no further clarification is needed. As a result, no change is made to the draft RAI. 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: 3724

Mail Envelope Properties (2FBE1051AEB2E748A0F98DF9EEE5A5D4AA0559)

Subject: Response to U.S. EPR Design Certification Application RAI No. 508 (6005,6000,5994), FSAR Ch. 3, Supplement 3
Sent Date: 1/27/2012 1:27:58 PM
Received Date: 1/27/2012 1:28:10 PM
From: WILLIFORD Dennis (AREVA)

Created By: Dennis.Williford@areva.com

Recipients:
"BENNETT Kathy (AREVA)" <Kathy.Bennett@areva.com>
Tracking Status: None
"DELANO Karen (AREVA)" <Karen.Delano@areva.com>
Tracking Status: None
"ROMINE Judy (AREVA)" <Judy.Romine@areva.com>
Tracking Status: None
"RYAN Tom (AREVA)" <Tom.Ryan@areva.com>
Tracking Status: None
"Miernicki, Michael" <Michael.Miernicki@nrc.gov>
Tracking Status: None
"Tesfaye, Getachew" <Getachew.Tesfaye@nrc.gov>
Tracking Status: None

Post Office: auscharmx02.adom.ad.corp

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MESSAGE	7445	1/27/2012 1:28:10 PM
RAI 508 Supplement 3 Response US EPR DC.pdf	577250	

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

Response to

Request for Additional Information No. 508 (6005, 6000, 5994), Revision 0, Supplement 3

8/26/2011

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 03.03.01 - Wind Loading
SRP Section: 03.07.03 - Seismic Subsystem Analysis
SRP Section: 03.09.02 - Dynamic Testing and Analysis of Systems Structures and Components

Application Section: 03.03.01

QUESTIONS for Structural Engineering Branch 2 (ESBWR/ABWR Projects) (SEB2)
QUESTIONS for Engineering Mechanics Branch 2 (ESBWR/ABWR Projects) (EMB2)

Question 03.03.01-5:

Design loads for structures are identified in Tier 1, Section 2.1 design descriptions and their associated ITAAC. Design loads for external events identified in ITAAC Tables do not include wind loads. Per GDC 2, SSCs important to safety should be designed to withstand the effects of natural phenomena including hurricane wind loads. As such, the applicant is requested to add wind loads to the list of external event design basis loads for Seismic Category I structures to the ITAAC tables of Tier 1, Section 2.1 and include it in its evaluation of the design capacity of the structure or justify why it should be excluded.

Response to Question 03.03.01-5:

Wind will be added as an external design basis load event for the following Seismic Category I structures:

- Reactor Building.
- Safeguard Buildings.
- Fuel Building.
- Emergency Power Generating Buildings.
- Essential Service Water Buildings.

FSAR Impact:

U.S. EPR FSAR Tier 1, Sections 2.1.1, 2.1.2, and 2.1.5 will be revised as described in the response and indicated on the enclosed markup.

U.S. EPR Final Safety Analysis Report Markups

relief device" for their respective compartments. The doors provide this pressure relief function by swinging open or by use of a pressure balance aperture (blowout panel) in the door.

2.0 Key Design Features

2.1 Six rib support structures, provided at the bottom of the reactor cavity, as shown on Figure 2.1.1-9, limit lower reactor pressure vessel head deformation due to thermal expansion and creep during severe accident mitigation.

2.2 As shown on Figure 2.1.1-4, a flooding barrier is provided to prevent ingress of water into the core melt spreading area. Penetrations within the core melt water ingression barrier are protected by watertight seals. Doors within the core melt water ingression barrier are watertight doors.

2.3 Core melt cannot relocate to the upper containment due to the existence of concrete barriers, as shown on Figure 2.1.1-9.

2.4 The RB structures are Seismic Category I and are designed and constructed to withstand design basis loads without loss of structural integrity and safety-related functions. The design basis loads are those loads associated with:

- Normal plant operation (including dead loads, live loads, lateral earth pressure loads, equipment loads, hydrostatic, hydrodynamic, and temperature loads).
- Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads, including reaction loads, jet impingement loads, and missile impact loads).
- External events (including wind, rain, snow, flood, tornado, tornado-generated missiles and earthquake).

03.03.01-5

2.5 The RCB, including the liner plate and penetration assemblies, maintains its pressure boundary integrity at the design pressure.

2.6 The RCB is post-tensioned, pre-stressed concrete structure.

2.7 The RBA is separated from the SBs and the FB and the RBA is separated from the RCB by ~~an~~ internal hazard protection barriers that haves ~~a~~n adequate ~~minimum 3-hour~~ fire rating, as indicated on Figure 2.1.1-20.

2.8 The following are provided for water flow to the in-containment refueling water storage tank (IRWST):

- As shown on Figure 2.1.1-4, RCB rooms which are adjacent to the IRWST contain wall openings ~~slightly above the floor~~ to allow water flow into the IRWST.
- As shown on Figure 2.1.1-5, RCB rooms which are directly above the IRWST, contain ~~trapezoidal-shaped~~ openings in the floor to allow water flow into the IRWST. The floor openings are protected by weirs and trash racks to provide a barrier against material transport into the IRWST.

2.1.1.2 Safeguard Buildings

1.0 Description

The SBs are reinforced concrete, Seismic Category I, safety-related structures located around the perimeter of the RSB. The SBs are arranged to accommodate four safeguard divisions. SB 4 and 1 are located adjacent to the RSB as shown on Figure 2.1.1-2. SBs 2 and 3 are contained in a single structure separated by a common wall and are located adjacent to the RSB as shown on Figure 2.1.1-2. As shown on Figure 2.1.1-15 and Figure 2.1.1-17, SBs 2 and 3 are decoupled from the external hazards barrier by a gap between the SBs external walls and their uppermost ceilings. The SBs and the RSB share the reinforced concrete cylindrical shell from the basemat to elevation 0 feet, 0 inches; above this elevation the structures are physically separated by a seismic gap.

The SBs 2 and 3 structure has overall dimensions of approximately 92 feet out from the RSB wall by 180 feet long by 140 feet high. The SB 1 structure has overall dimensions of approximately 87 feet out from the RSB wall by 100 feet long by 115 feet high. The SB 4 structure has dimensions of approximately 87 feet out from the RSB wall by 100 feet long by 150 feet high.

The primary function of the SBs is to provide physical separation between redundant divisions of safeguard equipment. The main control room (MCR) and the technical support center (TSC) are located within SBs 2 and 3 as shown on Figure 2.1.1-16. The remote shutdown station (RSS), which is separate from the MCR, is located within SB 3 as shown on Figure 2.1.1-15. Also located in the SBs are the reinforced concrete main steam valve rooms. Stair towers are provided between the different SBs and the SBs and FB.

2.0 Key Design Features

2.1 The SB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety-related functions.

- Normal plant operation (including dead loads, live loads, lateral earth pressure loads, equipment loads, hydrostatic, hydrodynamic, and temperature loads).
- Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads, including reaction loads, jet impingement loads, and missile impact loads).
- External events (including wind, rain, snow, flood, tornado, tornado-generated missiles and earthquake).

03.03.01-5

2.2 The basic configuration of the NI structures separates the four SBs by an internal hazards separation barrier so that the impact of internal hazards, including fire, flood, high energy break and missile impact, is contained within the SB of hazard origination. Figure 2.1.1-20 through Figure 2.1.1-37 identify the internal hazards separation barrier.

2.3 The SB structures have key dimensions ~~that are confirmed after construction~~specified in Table 2.1.1-9.

2.1.1.3 Fuel Building

1.0 Description

The FB is a reinforced concrete, Seismic Category I, safety-related structure. It extends approximately 58 feet out from the RSB wall and is approximately 160 feet long by 140 feet high. The FB is located adjacent to the RSB at 180 degrees as shown on Figure 2.1.1-2. As shown on Figure 2.1.1-11 and Figure 2.1.1-12 the FB is decoupled from the external hazards barrier by a gap between the FB external wall and its uppermost ceiling. The FB and the RSB share the reinforced concrete cylindrical shell from the basemat to elevation 0 feet 0 inches; above this elevation the structures are physically separated by a seismic gap. The primary function of the FB is to house new and spent fuel and to provide radiation protection during normal operation by shielding areas of higher radiation from areas of lower radiation. The Seismic Category I FB structure includes the vent stack. The FB supports the vent stack, a steel structure approximately 12 feet, 6 inches in diameter by 100 feet high located on top of the stair tower between the FB and SB 4. Stair towers are provided between the different SBs and the FB. These stair towers provide personnel access among the various elevations of the NI and tie together the buildings around the periphery of the RSB.

2.0 Key Design Features

2.1 The FB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety-related functions.

- Normal plant operation (including dead loads, live loads, lateral earth pressure loads, equipment loads, hydrostatic, hydrodynamic, and temperature loads).
- Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads, including reaction loads, jet impingement loads, and missile impact loads).
- External events (including wind, rain, snow, flood, tornado, tornado-generated missiles and earthquake).

03.03.01-5

2.2 The basic configuration of the NI structures provides internal separation between independent divisions within the FB and separates the FB from other NI structures by an internal hazards separation barrier so that the impact of internal hazards, including fire, flood, high line energy break and missile impact, is contained within the FB division of hazard origination. Figure 2.1.1-20 and Figure 2.1.1-38 through Figure 2.1.1-44 identify the internal hazards separation barrier.

2.3 The Spent Fuel Storage Pool (SFSP) has a minimum depth from the bottom of the SFSP to the spent pool operating floor. ~~that is confirmed after construction.~~

2.4 The SFSP includes no gates, openings, or drains below an elevation corresponding to the top of stored fuel assemblies.

2.5 The SFSP includes no piping that extends below an elevation of 10 feet above the top of the stored fuel assemblies.

Table 2.1.1-8—Reactor Building ITAAC (6 Sheets)

	Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
2.4	The RB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety related functions. • Normal plant operation (including dead loads, live loads, lateral earth pressure loads, equipment loads, hydrostatic, hydrodynamic, and temperature loads). • Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads, including reaction loads, jet impingement loads, cubicle pressurization loads, and missile impact loads). • External events (including wind, rain, snow, flood, tornado, 03.03.01-5 tornado-generated missiles and earthquake)	a. An analysis of the RB structures for the design basis loads will be performed. b. ~~During construction,~~ ~~d~~Deviations from the approved design will be analyzed ~~for design basis loads~~.	a. A report ~~exists which reconciles deviations during construction and~~ concludes that the ~~as-built~~ RB structures ~~conform to the approved design and~~ will withstand the design basis loads specified without loss of structural integrity or safety-related functions. b. A report reconciles deviations to the approved design.
2.5	The RCB, including the liner plate and penetration assemblies, maintains its pressure boundary integrity at the design pressure.	a. A Structural Integrity Test of the RCB, including the liner plate and penetration assemblies, will be performed in accordance with ASME Code Section III. ~~Inspections will be performed for the existence of ASME Code Section III Design Report(s) for the RCB liner plate and penetration assemblies.~~	a. ASME Code Section III ~~Design~~ Data Report~~(~~s~~)~~ ~~(NCA-3550)~~ exist and conclude that ~~for~~ the RCB, including the liner plate and penetration assemblies, the Structural Integrity Test results comply with ASME Code Section III, Division 2, CC-6400 requirements at a test presssure of 115% of the design pressure of 62 psig.

Table 2.1.1-10—Safeguard Buildings ITAAC (3 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
2.1	The SB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety related functions. • Normal plant operation (including dead loads, live loads, lateral earth pressure loads, equipment loads, hydrostatic, hydrodynamic, and temperature loads). • Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads, including reaction loads, jet impingement loads, cubicle pressurization loads, and missile impact loads). • External events (including wind, rain, snow, flood, tornado, tornado-generated missiles and earthquake).	a. An analysis of the SB structures for the design basis loads will be performed. b. ~~During construction,~~ ~~d~~Deviations from the approved design will be analyzed ~~for design basis loads~~.	a. A report ~~exists which reconciles deviations during construction and~~ concludes that the ~~as-built~~ SB structures ~~conform to the approved design and~~ will withstand the design basis loads specified without loss of structural integrity or safety-related functions. b. A report reconciles deviations to the approved design.

03.03.01-5

Table 2.1.1-11—Fuel Building ITAAC (3 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
2.1	The FB structure is Seismic Category I and is designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety related functions. • Normal plant operation (including dead loads, live loads, lateral earth pressure loads, equipment loads, hydrostatic, hydrodynamic, and temperature loads). • Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads, including reaction loads, jet impingement loads, cubicle pressurization loads, and missile impact loads). • External events (including wind, rain, snow, flood, tornado, tornado-generated missiles and earthquake).	a. An analysis of the FB structure for the design basis loads will be performed. b. ~~During construction,~~ ~~d~~Deviations from the approved design will be analyzed ~~for design basis loads~~.	a. A report ~~exists which reconciles deviations during construction and~~ concludes that the ~~as-built~~ FB structures ~~conform to the approved design and~~ will withstand the design basis loads specified without loss of structural integrity or safety-related functions. b. A report reconciles deviations to the approved design.

03.03.01-5

3.3 The basic configuration of the EPGB structures contains an internal hazards separation barrier so that the impact of internal hazards, including fire, flood, high-energy line break and missile impact, is contained within the EPGB of hazard origination. Figure 2.1.2-4 identifies the internal hazards separation barrier.

3.4 The EPGB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety-related functions.

- Normal plant operation (including dead loads, live loads, lateral earth pressure loads, hydrostatic loads, hydrodynamic loads, and temperature loads).
- Internal Events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads—including reaction loads, jet impingement loads, and missile impact loads).
- External events (including wind, rain, snow, flood, tornado, tornado-generated missiles, and earthquake).

03.03.01-5

3.5 Deleted.

3.6 The EPGB structures have key dimensions ~~that are confirmed after construction~~specified in Table 2.1.2-1 and Table 2.1.2-2.

4.0 Interface Requirements

There are no interface requirements for the EPGBs.

5.0 Inspections, Tests, Analyses, and Acceptance Criteria

Table 2.1.2–3 lists the EPGB ITAAC.

Table 2.1.2-3—Emergency Power Generating Building ITAAC (3 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
3.4	The EPGB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety-related functions. • Normal plant operation (including dead loads, live loads, lateral earth pressure loads, hydrostatic loads, hydrodynamic loads, and temperature loads). • Internal Events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reactions, and pipe break loads – including reaction loads, jet impingement loads, cubicle pressurization loads, and missile impact loads). • External events (including wind, rain, snow, flood, tornado, tornado-generated missiles, and earthquake).	a. An analysis of the EPGB structures for the design basis loads will be performed. b. ~~During construction,~~ ~~d~~Deviations from the approved design will be analyzed ~~for design basis loads~~.	a. A report ~~exists which reconciles deviations during construction and~~ concludes that the ~~as-built~~ EPGB structures ~~conform to the approved design and~~ will withstand the design basis loads specified without loss of structural integrity or safety-related functions. b. A report reconciles deviations to the approved design.
3.5	Deleted.	Deleted.	Deleted.

03.03.01-5

3.5 The ESWB structures are Seismic Category I and are designed and constructed to withstand design basis loads, as specified below, without loss of structural integrity and safety-related functions.

- Normal plant operation (including dead loads, live loads, lateral earth pressure loads, hydrostatic loads, hydrodynamic loads, and temperature loads).
- Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reaction, and pipe break loads—including reaction loads, jet impingement loads, and missile impact loads).
- External events (including wind, rain, snow, flood, tornado, tornado-generated missiles, and earthquake).

03.03.01-5

3.6 ESWB structural walls or floors having exterior penetrations located below grade elevation are protected against external flooding by watertight seals.

3.7 The ESWB structures have key dimensions specified in Tables 2.1.5-1 and 2.1.5-2~~that are confirmed after construction~~.

4.0 Interface Requirements

There are no interface requirements for the ESWB structures.

5.0 Inspections, Tests, Analyses, and Acceptance Criteria

Table 2.1.5-3 lists ESWB ITAAC.

Table 2.1.5-3—Essential Service Water Building ITAAC
(3 Sheets)

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
	• Normal plant operation (including dead loads, live loads, lateral earth pressure loads, hydrostatic loads, hydrodynamic loads, and temperature loads). • Internal events (including internal flood loads, accident pressure loads, accident thermal loads, accident pipe reaction, and pipe break loads – including reaction loads, jet impingement loads, cubicle pressurization loads, and missile impact loads). • External events (including wind, rain, snow, flood, tornado, tornado-generated missiles, and earthquake).		
3.6	ESWB structural walls or floors having exterior penetrations located below grade elevation are protected against external flooding by watertight seals.	An inspection of ESWB exterior structural walls and floors located below grade will be performed.	Watertight seals exist for exterior penetrations of ESWB structural walls and floors located below grade elevation.

03.03.01-5