ArevaEPRDCPEm Resource

From: DUNCAN Leslie E (AREVA NP INC) [Leslie.Duncan@areva.com]
Sent: Thursday, June 25, 2009 4:28 PM
To: Tesfaye, Getachew
Cc: Pederson Ronda M (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); WILLIFORD Dennis C (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 131, FSAR Ch 9, Supplement 5
Attachments: RAI 131 Supplement 5 Response US EPR DC.pdf

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 5 of the 21 questions of RAI No. 131 on January 14, 2009. AREVA NP submitted Supplement 1 to the response on February 19, 2009 to address 1 of the remaining 16 questions. AREVA NP submitted Supplement 2 to the response on March 20, 2009 to address 5 of the remaining 15 questions. AREVA NP submitted Supplement 3 to the response on March 31, 2009 to address 3 of the remaining 10 questions. AREVA NP submitted Supplement 4 to the response on May 12, 2009 to address 5 of the remaining 7 questions. The attached file, "RAI 131 Supplement 5 Response US EPR DC.pdf" provides technically correct and complete responses to one of the remaining 2 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 131 Question 09.01.04-7.

The following table indicates the respective pages in the response document, "RAI 131 Supplement 5 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 131 —9.01.04-7	2	3
RAI 131 —9.01.04-9	4	4

AREVA NP is unable to respond to one question at this time. The schedule for a technically correct and complete response to the remaining question is revised and provided below:

Question #	Response Date
RAI 131 —9.01.04-9	November 20, 2009

Sincerely,

Les Duncan
Licensing Engineer
AREVA NP Inc.
An AREVA and Siemens Company
Tel: (434) 832-2849
Leslie.Duncan@areva.com

From: WELLS Russell D (AREVA NP INC)
Sent: Tuesday, May 12, 2009 3:22 PM
To: 'Getachew Tesfaye'

Cc: Pederson Ronda M (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 131, FSAR Ch 9, Supplement 4

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 5 of the 21 questions of RAI No. 131 on January 14, 2009. AREVA NP submitted Supplement 1 to the response on February 19, 2009 to address 1 of the remaining 16 questions. AREVA NP submitted Supplement 2 to the response on March 20, 2009 to address 5 of the remaining 15 questions. AREVA NP submitted Supplement 3 to the response on March 31, 2009 to address 3 of the remaining 10 questions. The attached file, "RAI 131 Supplement 4 Response US EPR DC.pdf" provides technically correct and complete responses to 5 of the remaining 7 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 131 Questions 09.01.04-3, 09.01.04-5, 09.01.04-6, 09.01.04-11 and 09.01.04-13.

The following table indicates the respective pages in the response document, "RAI 131 Supplement 4 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 131 —9.01.04-3	2	5
RAI 131 —9.01.04-5	6	7
RAI 131 —9.01.04-6	8	8
RAI 131 —9.01.04-11	9	9
RAI 131 —9.01.04-13	10	10

The schedule for technically correct and complete responses to the remaining 2 questions is unchanged and provided below:

Question #	Response Date
RAI 131 —9.01.04-7	June 25, 2009
RAI 131 —9.01.04-9	June 25, 2009

Sincerely,

(Russ Wells on behalf of)

Ronda Pederson
ronda.pederson@areva.com
Licensing Manager, U.S. EPR Design Certification
New Plants Deployment
AREVA NP, Inc.
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From: Pederson Ronda M (AREVA NP INC)
Sent: Tuesday, March 31, 2009 8:07 PM
To: Getachew Tesfaye
Cc: BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); WILLIFORD Dennis C (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 131, Supplement 3

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 5 of the 21 questions of RAI No. 131 on January 14, 2009. AREVA NP submitted Supplement 1 to the response on February 19, 2009 to address 1 of the remaining 16 questions. AREVA NP submitted Supplement 2 to the response on March 20, 2009 to address 5 of the remaining 15 questions. The attached file, "RAI 131 Supplement 3 Response US EPR DC.pdf" provides technically correct and complete responses to 3 of the remaining 10 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 131 Questions 09.01.04-1, 09.01.04-4, and 09.01.04-8.

The following table indicates the respective pages in the response document, "RAI 131 Supplement 3 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 131 — 9.01.04-1	2	2
RAI 131 — 9.01.04-4	3	4
RAI 131 — 9.01.04-8	5	5

The schedule for technically correct and complete responses to the remaining 7 questions is unchanged and provided below:

Question #	Response Date
RAI 131 — 9.01.04-3	May 13, 2009
RAI 131 — 9.01.04-5	May 13, 2009
RAI 131 — 9.01.04-6	May 13, 2009
RAI 131 — 9.01.04-7	June 25, 2009
RAI 131 — 9.01.04-9	June 25, 2009
RAI 131 — 9.01.04-11	May 13, 2009
RAI 131 — 9.01.04-13	May 13, 2009

Sincerely,

Ronda Pederson
ronda.pederson@areva.com
Licensing Manager, U.S. EPR Design Certification
AREVA NP Inc.
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3315 Old Forest Road
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From: Pederson Ronda M (AREVA NP INC)
Sent: Friday, March 20, 2009 6:02 PM

To: 'Getachew Tesfaye'
Cc: WILLIFORD Dennis C (AREVA NP INC); HARRIS Carolyn A (AREVA NP INC); DELANO Karen V (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 131, Supplement 2

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 5 of the 21 questions of RAI No. 131 on January 14, 2009. AREVA NP submitted Supplement 1 to the response on February 19, 2009 to address 1 of the remaining 16 questions. The attached file, "RAI 131 Supplement 2 Response US EPR DC.pdf" provides technically correct and complete responses to 5 of the remaining 15 questions. Since responses to 10 of the questions cannot be provided at this time, a revised schedule is provided in this email.

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 131 Questions 09.05.06-1, 09.05.06-2, 09.05.06-5, 09.05.06-7 and 09.05.06-8.

The following table indicates the respective page(s) in the response document, "RAI 131 Supplement 2 Response US EPR DC.pdf," that contain AREVA NP's response to the 5 of the 15 questions.

Question #	Start Page	End Page
RAI 131 — 9.05.06-1	2	2
RAI 131 — 9.05.06-2	3	4
RAI 131 — 9.05.06-5	5	5
RAI 131 — 9.05.06-7	6	7
RAI 131 — 9.05.06-8	8	8

The schedule for technically correct and complete responses to the remaining 10 questions has been changed as provided below:

Question #	Response Date
RAI 131 — 9.01.04-1	March 31, 2009
RAI 131 — 9.01.04-3	May 13, 2009
RAI 131 — 9.01.04-4	March 31, 2009
RAI 131 — 9.01.04-5	May 13, 2009
RAI 131 — 9.01.04-6	May 13, 2009
RAI 131 — 9.01.04-7	June 25, 2009
RAI 131 — 9.01.04-8	March 31, 2009
RAI 131 — 9.01.04-9	June 25, 2009
RAI 131 — 9.01.04-11	May 13, 2009
RAI 131 — 9.01.04-13	May 13, 2009

Sincerely,

Ronda Pederson
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Cell: 434-841-8788

From: Pederson Ronda M (AREVA NP INC)
Sent: Thursday, February 19, 2009 6:53 PM
To: 'Getachew Tesfaye'
Cc: BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); WILLIFORD Dennis C (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 131, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided responses to 5 of the 21 questions of RAI No.131 on January 14, 2009. The attached file, "RAI 131 Supplement 1 Response US EPR DC.pdf" provides a technically correct and complete response to 1 of the remaining 16 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 131 Question 09.02.01-25.

The following table indicates the respective pages in the response document, "RAI 131 Supplement 1 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 131 — 9.02.01-25	2	3

The schedule for technically correct and complete responses to the remaining 15 questions is unchanged and provided below:

Question #	Response Date
RAI 131 — 9.01.04-1	March 20, 2009
RAI 131 — 9.01.04-3	March 20, 2009
RAI 131 — 9.01.04-4	March 20, 2009
RAI 131 — 9.01.04-5	March 20, 2009
RAI 131 — 9.01.04-6	March 20, 2009
RAI 131 — 9.01.04-7	March 20, 2009
RAI 131 — 9.01.04-8	March 20, 2009
RAI 131 — 9.01.04-9	March 20, 2009
RAI 131 — 9.01.04-11	March 20, 2009
RAI 131 — 9.01.04-13	March 20, 2009
RAI 131 — 9.05.06-1	March 20, 2009
RAI 131 — 9.05.06-2	March 20, 2009
RAI 131 — 9.05.06-5	March 20, 2009
RAI 131 — 9.05.06-7	March 20, 2009
RAI 131 — 9.05.06-8	March 20, 2009

Sincerely,

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From: Pederson Ronda M (AREVA NP INC)
Sent: Wednesday, January 14, 2009 2:48 PM
To: 'Getachew Tesfaye'
Cc: WILLIFORD Dennis C (AREVA NP INC); BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC)
Subject: Response to U.S. EPR Design Certification Application RAI No. 131(1537,1510,1560), FSAR Ch. 9

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 131 Response US EPR DC.pdf" provides technically correct and complete responses to 5 of the 21 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 131, Questions 9.01.04-2, 9.01.04-12, 9.05.06-3, and 9.05.06-6.

The following table indicates the respective page(s) in the response document, "RAI 131 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 131 — 9.01.04-1	2	2
RAI 131 — 9.01.04-2	3	3
RAI 131 — 9.01.04-3	4	4
RAI 131 — 9.01.04-4	5	5
RAI 131 — 9.01.04-5	6	6
RAI 131 — 9.01.04-6	7	7
RAI 131 — 9.01.04-7	8	8
RAI 131 — 9.01.04-8	9	9
RAI 131 — 9.01.04-9	10	10
RAI 131 — 9.01.04-11	11	11
RAI 131 — 9.01.04-12	12	12
RAI 131 — 9.01.04-13	13	13
RAI 131 — 9.02.01-25	14	14
RAI 131 — 9.05.06-1	15	15
RAI 131 — 9.05.06-2	16	16

RAI 131 — 9.05.06-3	17	17
RAI 131 — 9.05.06-4	18	18
RAI 131 — 9.05.06-5	19	19
RAI 131 — 9.05.06-6	20	20
RAI 131 — 9.05.06-7	21	21
RAI 131 — 9.05.06-8	22	22

A complete answer is not provided for 16 of the 21 questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 131 — 9.01.04-1	March 20, 2009
RAI 131 — 9.01.04-3	March 20, 2009
RAI 131 — 9.01.04-4	March 20, 2009
RAI 131 — 9.01.04-5	March 20, 2009
RAI 131 — 9.01.04-6	March 20, 2009
RAI 131 — 9.01.04-7	March 20, 2009
RAI 131 — 9.01.04-8	March 20, 2009
RAI 131 — 9.01.04-9	March 20, 2009
RAI 131 — 9.01.04-11	March 20, 2009
RAI 131 — 9.01.04-13	March 20, 2009
RAI 131 — 9.02.01-25	February 27, 2009
RAI 131 — 9.05.06-1	March 20, 2009
RAI 131 — 9.05.06-2	March 20, 2009
RAI 131 — 9.05.06-5	March 20, 2009
RAI 131 — 9.05.06-7	March 20, 2009
RAI 131 — 9.05.06-8	March 20, 2009

Sincerely,

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From: Getachew Tesfaye [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Tuesday, December 02, 2008 3:01 PM
To: ZZ-DL-A-USEPR-DL
Cc: Larry Wheeler; Gerard Purciarello; Stephen Campbell; John Segala; Peter Hearn; Joseph Colaccino; John Rycyna
Subject: U.S. EPR Design Certification Application RAI No. 131(1537,1510,1560), FSAR Ch. 9

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on October 29, 2008, and discussed with your staff on November 19, 2008. Draft RAI Question 09.01.04-10 was deleted 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, excluding the time period of **December 20, 2008 thru January 1, 2009, to account for the holiday season** as discussed with AREVA NP Inc. For any RAIs that cannot be answered **within 45 days**, it is expected that a date for receipt of this information will be provided to the staff within the 45-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: 613

Mail Envelope Properties (F322AA625A7A7443A9C390B0567503A101062EC2)

Subject: Response to U.S. EPR Design Certification Application RAI No. 131, FSAR Ch 9, Supplement 5
Sent Date: 6/25/2009 4:27:49 PM
Received Date: 6/25/2009 4:27:54 PM
From: DUNCAN Leslie E (AREVA NP INC)

Created By: Leslie.Duncan@areva.com

Recipients:
"Pederson Ronda M (AREVA NP INC)" <Ronda.Pederson@areva.com>
Tracking Status: None
"BENNETT Kathy A (OFR) (AREVA NP INC)" <Kathy.Bennett@areva.com>
Tracking Status: None
"DELANO Karen V (AREVA NP INC)" <Karen.Delano@areva.com>
Tracking Status: None
"WILLIFORD Dennis C (AREVA NP INC)" <Dennis.Williford@areva.com>
Tracking Status: None
"Tesfaye, Getachew" <Getachew.Tesfaye@nrc.gov>
Tracking Status: None

Post Office: AUSLYNCMX01.adom.ad.corp

Files	**Size**	**Date & Time**
MESSAGE	14780	6/25/2009 4:27:54 PM
RAI 131 Supplement 5 Response US EPR DC.pdf		115405

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

Response to

Request for Additional Information No. 131, Supplement 5

12/2/2008

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 09.01.04 - Light Load Handling System (Related to Refueling)
SRP Section: 09.02.01 - Station Service Water System
SRP Section: 09.05.06 - Emergency Diesel Engine Starting System
Application Section: FSAR Ch. 9

QUESTIONS for Balance of Plant Branch 2 (ESBWR/ABWR) (SBPB)
QUESTIONS for Balance of Plant Branch 1 (AP1000/EPR Projects) (SBPA)

Question 09.01.04-7:

Figure 3.8-52- Fuel Building Plan Section C-C, shows the Loading Hall approximately 32 feet below the bottom of the Loading Pit and approximately 17 feet below the bottom of the Spent Fuel Pool (SFP). There is apparently a possible path to drain the SFP to a level of approximately 18 feet above the bottom of the SFP from the pool to the Loading Pit and out to the Loading Hall. The gates between the SFP and the Loading Pit and the connection at the bottom of the Loading Pit are the barriers to prevent draining the SFP.

a. Provide sketches and a description of the seal at the bottom of the cask loading pit. Assuming a single failure of the seal, provide the methodology by which the draining of the SFP is prevented.

b. When the shipping cask is connected to the bottom of the cask loading pit, assuming a single failure of the seal, provide the methodology for preventing draining of the SFP. Provide sketches.

c. Define the design criteria of the gates between the SFP and the Loading Pit. Describe the seals of the gates. Provide sketches to describe the design. Explain whether failure of a gate will jeopardize water inventory in the SFP either during normal operations or during operation of the spent fuel cask transfer facility.

d. With the 3 seals between the SFP and the Loading Hall, [i.e. the two gates between the SFP and the Loading Pit; and the seal at the bottom of the Loading Pit (either the seal with the spent fuel cask or the seal without the spent fuel cask), confirm that operator error at any time during the fuel handling procedures will not result in the loss of water in the SFP. Explain.

The information should be in the FSAR.

Response to Question 09.01.04-7:

a) The loading penetration in the loading pit is provided with a cover and this cover is maintained closed. The loading pit penetration cover is a safety-related, Seismic Category I component, as described in the response to RAI 131, Question 09.01.04-6. The penetration cover is designed to maintain leak-tightness in the event of a credible single failure, as described in the response to RAI 131, Supplement 4, Question 09.01.04-5 (c).

   As described in U.S. EPR FSAR Tier 2, Section 9.1.4.3.1, the leak-tightness of the cover of the loading pit penetration is monitored and an alarm is transmitted to the main control room.

   Details of the loading penetration and cover for the spent fuel cask transfer facility will be developed later in the design process.

b) As described in the response to RAI 131, Supplement 4, Question 09.01.04-5, cask handling operations will be covered under a 10 CFR Part 72 license application.

c) The cask loading pit is adjacent to the spent fuel storage area. The spent fuel storage area and the loading pit are separated by two gates: a slot gate and a swivel gate. U.S. EPR FSAR Tier 2, Figure 3.8-45 shows the location of the spent fuel storage area and the loading pit and shows the orientation of the two gates. Design details of the gates will be developed

developed later in the design process.

The gates allow isolation of the cask loading pit from the spent fuel storage area so that the cask loading pit can be drained. Both gates are designed to maintain leak-tight integrity to prevent the loss of cooling water from the spent fuel storage area. The gates and the weir, shown in U.S. EPR FSAR Tier 2, Figure 3.8-52, are arranged so that the bottoms of the gates are higher than the top of the stored fuel assemblies. U.S. EPR FSAR Tier 2, Section 9.1.2.2.2 will be revised to include design criteria for the gates. U.S. EPR FSAR Tier 2, Section 9.1.2.2.2 will also be revised to remove the restriction that the pit area is only filled with water during spent fuel removal procedures. This is being removed to allow operational flexibility concerning water movement and to provide an additional source of spent fuel pool make-up water.

The response to RAI 84 Question 09.01.02-13 provided confirmation that leak-tight failure of both the transfer pit gates and the loading pit gates during a seismic event would not result in a significant loss of water inventory in the spent fuel storage area. Approximately 24 feet of water would be maintained above the top of the active fuel during this postulated seismic event. Failure of the gates during operation of the cask transfer facility, requiring opening of the cask loading pit penetration cover, will be addressed under a 10 CFR Part 72 license application (see response to RAI 131, Supplement 4, Question 09.01.04-5).

d) As stated in the response to RAI 131, Supplement 4, Question 09.01.04-5, the penetration cover is maintained closed under administrative control. Failure of the gates will not result in a significant loss of water inventory in the spent fuel storage area, as described in the response to Part C. Therefore, operator error will not result in the loss of sufficient water inventory in the spent fuel storage area to impact the spent fuel pool cooling function.

FSAR Impact:

U.S. EPR FSAR Tier 2, Section 9.1.2.2.2 will be revised as described in the response and indicated on the enclosed markup.

Question 09.01.04-9:

General Design Criteria (GDC) 62 required provisions to prevent criticality in spent fuel storage. The reactor cavity, the core internal storage compartment, and the reactor building pool transfer compartment are flooded with borated water during refueling operations so that spent fuel assemblies are handled with shielding and criticality prevention. The applicant states in FSAR Tier 2, Section 9.1.4.2.1 that "The boric acid concentration in the water is sufficient to preclude criticality." The applicant has stated in FSAR Tier 2, Section 9.1.4.2.1 under "Spent Fuel Storage and Activities During Plant Normal Operation," that a step in the procedure is "Verification of SFP boron concentration to maintain subcriticality of the fuel assemblies." The applicant has stated in FSAR Tier 2 Section 9.1.4.3 that the fuel handling systems is designed to maintain geometrically safe configurations in the fuel storage areas to prevent inadvertent criticality and that for defense in depth, additional margin to prevent criticality is provided by the borated water. These sections of the FSAR provide conflicting statements with respect to the need for borated water to prevent criticality. Explain if borated water is required to prevent criticality during refueling operations or is provided only for defense in depth and to make the FSAR consistent.

Response to Question 09.01.04-9:

A response to this question will be provided by November 20, 2009.

U.S. EPR Final Safety Analysis Report Markups

Borated demineralized reactor makeup water is used to fill and to supplement water inventory in the spent fuel pool, but boration is not essential for maintaining the subcriticality of the stored fuel assemblies.

09.01.04-7

Adjacent to the SFP is a separate spent fuel cask loading pit. This pit is used when the spent fuel is to be shipped offsite. ~~The pit area is only filled with water during spent fuel removal procedures. A gate separates the cask loading pit from the SFP, and is opened only for cask loading operations.~~Two gates separate the cask loading pit from the spent fuel storage area and are only opened for cask loading operations. The gates allow isolation of the cask loading pit from the spent fuel storage area so that the cask loading pit can be drained. Both gates are designed to maintain leak-tight integrity to prevent the loss of cooling water from the spent fuel storage area. The gates and the weir, shown in Figure 3.8-52, are arranged so that the bottoms of the gates are higher than the top of the stored fuel assemblies.

The Reactor Building and the Fuel Building are connected by a fuel transfer tube. This tube is fitted with a blind flange, two gate valves, one on each end.

The Fuel Pool Cooling and Purification System (FPCPS) functions to limit the spent fuel storage pool temperature to 140°F during non-refueling plant conditions, and to remove impurities from the water to improve visual clarity. A description of the FPCPS is provided in Section 9.1.3.

During fuel handling operations, a controlled and monitored ventilation system removes gaseous radioactivity from the atmosphere above the spent fuel pool and processes it through high efficiency particulate air (HEPA) filters and charcoal adsorber units to the unit vent. Refer to Section 9.4.2 for a description of the spent fuel pool area ventilation system operation and to Section 11.5 for the process ventilation monitors.

Section 9.1.4 details the load-bearing capability of the cranes serving the SFSF. Section 9.1.4 also provides an evaluation that demonstrates that the maximum uplift force is due to the SFP bridge crane and the maximum impact load is due to a dropped fuel assembly. The racks will be designed to withstand the maximum uplift force and the maximum impact load with no increase in k_{eff}.

Refer to Section 3.2 for the seismic and system quality group classification of the spent fuel racks. Non-safety-related equipment or structures not designed to Seismic Category I criteria that are located in the vicinity of the SFSF will be evaluated to confirm that their failure could not cause an increase in the k_{eff} value beyond the maximum allowable k_{eff}.