ArevaEPRDCDocsPEm Resource

From: KOWALSKI David (AREVA) [David.Kowalski@areva.com]
Sent: Wednesday, June 19, 2013 4:21 PM
To: Snyder, Amy
Cc: Miernicki, Michael; ANDERSON Katherine (EXTERNAL AREVA); DELANO Karen (AREVA); LEIGHLITER John (AREVA); LEWIS Ray (EXTERNAL AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); SHEPHERD Tracey (AREVA); VANCE Brian (AREVA); GUCWA Len (EXTERNAL AREVA); KOWALSKI David (AREVA); WILLIFORD Dennis (AREVA); NOXON David (AREVA)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 12
Attachments: RAI 420 Supplement 12 US EPR DC.pdf

Importance: High

Amy,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions. RAI 420 Supplement 6 sent on June 10, 2011, provided a revised schedule to the remaining 5 questions. RAI 420 Supplement 7 sent on June 30, 2011 provided technically correct and complete FINAL responses to 3 of the remaining 5 questions and a revised schedule for the remaining 2 questions. RAI 420 Supplement 8 sent on August 19, 2011, Supplement 9 sent on October 4, 2011, and Supplement 10 sent on November 10, 2011, and Supplement 11 sent on March 16, 2013, provided a revised schedule to the remaining 2 questions.

The attached file, "RAI 420 Supplement 12 Response US EPR DC.pdf" provides technically correct and complete final responses to Questions 03.02.01-12 and 03.02.02-7.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which supports the response to RAI 420 Questions 03.02.01-12 and 03.02.02-7.

The following table indicates the respective pages in the response document, "RAI 420 Supplement 12 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 420 — 03.02.01-12	2	6
RAI 420 — 03.02.02-7	7	8

This concludes the formal AREVA NP response to RAI 420, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

David Kowalski for

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, March 16, 2012 12:21 PM
To: Getachew.Tesfaye@nrc.gov
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 11

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions. RAI 420 Supplement 6 sent on June 10, 2011, provided a revised schedule to the remaining 5 questions. RAI 420 Supplement 7 sent on June 30, 2011 provided technically correct and complete FINAL responses to 3 of the remaining 5 questions and a revised schedule for the remaining 2 questions. Supplement 8 sent on August 19, 2011, Supplement 9 sent on October 4, 2011, and Supplement 10 sent on November 10, 2011, respectively, provided a revised schedule for the remaining 2 questions.

The schedule for a technically correct and complete response to the remaining 2 questions has been changed as provided below. This schedule was transmitted to the NRC in AREVA NP letter NRC:12:008 dated February 21, 2012.

Question #	Response Date
RAI 420 — 03.02.01-12	**June 28, 2013**
RAI 420 — 03.02.02-7	**June 28, 2013**

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, November 10, 2011 4:19 PM
To: Getachew.Tesfaye@nrc.gov
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 10

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a

revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions. RAI 420 Supplement 6 sent on June 10, 2011, provided a revised schedule to the remaining 5 questions. RAI 420 Supplement 7 sent on June 30, 2011 provided technically correct and complete FINAL responses to 3 of the remaining 5 questions and a revised schedule for the remaining 2 questions. RAI 420 Supplement 8 sent on August 19, 2011 and Supplement 9 sent on October 4, 2011, provided a revised schedule to the remaining 2 questions.

The schedule for providing a complete response to the remaining 2 questions has been revised as indicated below.

Question #	Response Date
RAI 420 — 03.02.01-12	**May 18, 2012**
RAI 420 — 03.02.02-7	**May 18, 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: Tuesday, October 04, 2011 4:06 PM
To: Getachew.Tesfaye@nrc.gov
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 9

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions. RAI 420 Supplement 6 sent on June 10, 2011, provided a revised schedule to the remaining 5 questions. RAI 420 Supplement 7 sent on June 30, 2011 provided technically correct and complete final responses to 3 of the remaining 5 questions and a revised schedule for the remaining 2 questions. RAI 420 Supplement 8 sent on August 19, 2011, provided a revised schedule for the remaining 2 questions.

The schedule for providing a complete response to the remaining 2 questions has been revised as indicated below.

Question #	Response Date
RAI 420 — 03.02.01-12	**November 11, 2011**
RAI 420 — 03.02.02-7	**November 11, 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: WILLIFORD Dennis (RS/NB)
Sent: Friday, August 19, 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); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 8

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions. RAI 420 Supplement 6 sent on June 10, 2011, provided a revised schedule to the remaining 5 questions. RAI 420 Supplement 7 sent on June 30, 2011 provided technically correct and complete final responses to 3 of the remaining 5 questions and a revised schedule for the remaining 2 questions.

The schedule for providing a complete response to the remaining 2 questions has been revised as indicated below.

Question #	Response Date
RAI 420 — 03.02.01-12	**October 4, 2011**
RAI 420 — 03.02.02-7	**October 4, 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: WILLIFORD Dennis (RS/NB)
Sent: Thursday, June 30, 2011 3:12 PM
To: 'Tesfaye, Getachew'
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); NOXON David (RS/NB); RYAN Tom (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 7

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a

revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions. RAI 420 Supplement 6 sent on June 10, 2011, provided a revised schedule for the remaining 5 questions. The attached file, "RAI 420 Supplement 7 Response US EPR DC.pdf" provides technically correct and complete FINAL responses to 3 of the remaining 5 questions.

The following table indicates the respective pages in the response document, "RAI 420 Supplement 7 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 420 — 03.02.02-8	2	2
RAI 420 — 03.02.02-10	3	3
RAI 420 — 03.02.02-11	4	4

The schedule for providing a complete response to the remaining 2 questions has been revised as indicated below.

Question #	Response Date
RAI 420 — 03.02.01-12	**August 19, 2011**
RAI 420 — 03.02.02-7	**August 19, 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: WILLIFORD Dennis (RS/NB)
Sent: Friday, June 10, 2011 8:14 AM
To: 'Tesfaye, Getachew'
Cc: BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); NOXON David (RS/NB); CORNELL Veronica (External RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 6

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a revised schedule. RAI 420 Supplement 5 sent on April 13, 2011 provided technically correct and complete final responses to 6 of the 11 questions.

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

Question #	Response Date
RAI 420 — 03.02.01-12	June 30, 2011
RAI 420 — 03.02.02-7	June 30, 2011
RAI 420 — 03.02.02-8	June 30, 2011

RAI 420 — 03.02.02-10	June 30, 2011
RAI 420 — 03.02.02-11	June 30, 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: WELLS Russell (RS/NB)
Sent: Wednesday, April 13, 2011 3:45 PM
To: 'Tesfaye, Getachew'
Cc: NOXON David (RS/NB); GARDNER Darrell (RS/NB); BENNETT Kathy (RS/NB); DELANO Karen (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 5

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 sent on January 7, 2011, Supplement 3 sent on February 9, 2011 and Supplement 4 sent on March 14, 2011 provided a revised schedule. The attached file, "RAI 420 Supplement 5 Response US EPR DC" provides a technically correct and complete final response to 6 of the 11 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 420 Question 03.02.02-9.

The following table indicates the respective pages in the response document, "RAI 420 Supplement 5 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 420 — 03.02.01-13	2	3
RAI 420 — 03.02.01-14	4	5
RAI 420 — 03.02.01-15	6	7
RAI 420 — 03.02.01-16	8	8
RAI 420 — 03.02.01-17	9	9
RAI 420 — 03.02.02-9	10	10

To allow additional time to interact with the NRC, the schedule for technically correct and complete responses to the remaining 5 questions has been changed and is provided below.

Question #	Response Date
RAI 420 — 03.02.01-12	June 10, 2011
RAI 420 — 03.02.02-7	June 10, 2011
RAI 420 — 03.02.02-8	June 10, 2011
RAI 420 — 03.02.02-10	June 10, 2011
RAI 420 — 03.02.02-11	June 10, 2011

Sincerely,

Russ Wells
U.S. EPR Design Certification Licensing Manager
AREVA NP, Inc.
3315 Old Forest Road, P.O. Box 10935
Mail Stop OF-57
Lynchburg, VA 24506-0935
Phone: 434-832-3884 (work)
434-942-6375 (cell)
Fax: 434-382-3884
Russell.Wells@Areva.com

From: WELLS Russell (RS/NB)
Sent: Monday, March 14, 2011 3:18 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 4

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010, Supplement 2 to sent on January 7, 2011, and Supplement 3 sent on February 9, 2011 provided a revised schedule

Additional time is required to interact with the NRC staff.

The schedule for a technically correct and complete response to this question has been changed and is provided below.

Question #	Response Date
RAI 420 — 03.02.01-12	April 20, 2011
RAI 420 — 03.02.01-13	April 20, 2011
RAI 420 — 03.02.01-14	April 20, 2011
RAI 420 — 03.02.01-15	April 20, 2011
RAI 420 — 03.02.01-16	April 20, 2011
RAI 420 — 03.02.01-17	April 20, 2011
RAI 420 — 03.02.02-7	April 20, 2011
RAI 420 — 03.02.02-8	April 20, 2011
RAI 420 — 03.02.02-9	April 20, 2011
RAI 420 — 03.02.02-10	April 20, 2011
RAI 420 — 03.02.02-11	April 20, 2011

Sincerely,

Russ Wells
U.S. EPR Design Certification Licensing Manager
AREVA NP, Inc.
3315 Old Forest Road, P.O. Box 10935
Mail Stop OF-57

Lynchburg, VA 24506-0935
Phone: 434-832-3884 (work)
434-942-6375 (cell)
Fax: 434-382-3884
Russell.Wells@Areva.com

From: BRYAN Martin (External RS/NB)
Sent: Wednesday, February 09, 2011 1:23 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 3

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. RAI 420 Supplement 1 sent on November 22, 2010 and Supplement 2 sent on January 7, 2011 provided a revised schedule

Additional time is required to interact with the NRC staff.

The schedule for a technically correct and complete response to this question has been changed and is provided below.

Question #	Response Date
RAI 420 — 03.02.01-12	March 16, 2011
RAI 420 — 03.02.01-13	March 16, 2011
RAI 420 — 03.02.01-14	March 16, 2011
RAI 420 — 03.02.01-15	March 16, 2011
RAI 420 — 03.02.01-16	March 16, 2011
RAI 420 — 03.02.01-17	March 16, 2011
RAI 420 — 03.02.02-7	March 16, 2011
RAI 420 — 03.02.02-8	March 16, 2011
RAI 420 — 03.02.02-9	March 16, 2011
RAI 420 — 03.02.02-10	March 16, 2011
RAI 420 — 03.02.02-11	March 16, 2011

Sincerely,

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

From: BRYAN Martin (External RS/NB)
Sent: Friday, January 07, 2011 3:59 PM
To: Tesfaye, Getachew

Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 2

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010. Supplement 1 to RAI 420 provided a revised schedule on November 22, 2010

Additional time is required to interact with the NRC staff.

The schedule for a technically correct and complete response to this question has been changed and is provided below.

Question #	Response Date
RAI 420 — 03.02.01-12	February 14, 2011
RAI 420 — 03.02.01-13	February 14, 2011
RAI 420 — 03.02.01-14	February 14, 2011
RAI 420 — 03.02.01-15	February 14, 2011
RAI 420 — 03.02.01-16	February 14, 2011
RAI 420 — 03.02.01-17	February 14, 2011
RAI 420 — 03.02.02-7	February 14, 2011
RAI 420 — 03.02.02-8	February 14, 2011
RAI 420 — 03.02.02-9	February 14, 2011
RAI 420 — 03.02.02-10	February 14, 2011
RAI 420 — 03.02.02-11	February 14, 2011

Sincerely,

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

From: BRYAN Martin (External RS/NB)
Sent: Monday, November 22, 2010 5:00 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 1

Getachew,

AREVA NP Inc. (AREVA NP) provided a schedule for a technically correct and complete response to RAI No. 420 on August 25, 2010.

Additional time is required to interact with the NRC staff.

The schedule for a technically correct and complete response to this question has been changed and is provided below.

Question #	Response Date
RAI 420 — 03.02.01-12	January 10, 2011
RAI 420 — 03.02.01-13	January 10, 2011
RAI 420 — 03.02.01-14	January 10, 2011
RAI 420 — 03.02.01-15	January 10, 2011
RAI 420 — 03.02.01-16	January 10, 2011
RAI 420 — 03.02.01-17	January 10, 2011
RAI 420 — 03.02.02-7	January 10, 2011
RAI 420 — 03.02.02-8	January 10, 2011
RAI 420 — 03.02.02-9	January 10, 2011
RAI 420 — 03.02.02-10	January 10, 2011
RAI 420 — 03.02.02-11	January 10, 2011

Sincerely,

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

From: BRYAN Martin (External RS/NB)
Sent: Wednesday, August 25, 2010 8:20 PM
To: 'Tesfaye, Getachew'
Cc: DELANO Karen (RS/NB); ROMINE Judy (RS/NB); BENNETT Kathy (RS/NB); NOXON David (RS/NB)
Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 420 Response US EPR DC.pdf," provides the schedule for technically correct and complete responses to these questions.

The following table indicates the respective pages in the response document, "RAI 420 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 420 — 03.02.01-12	2	2
RAI 420 — 03.02.01-13	3	3
RAI 420 — 03.02.01-14	4	4
RAI 420 — 03.02.01-15	5	5
RAI 420 — 03.02.01-16	6	6
RAI 420 — 03.02.01-17	7	7
RAI 420 — 03.02.02-7	8	8
RAI 420 — 03.02.02-8	9	9
RAI 420 — 03.02.02-9	10	10
RAI 420 — 03.02.02-10	11	11
RAI 420 — 03.02.02-11	12	12

The schedule for technically correct and complete responses to these questions is provided below.

Question #	Response Date
RAI 420 — 03.02.01-12	November 23, 2010
RAI 420 — 03.02.01-13	November 23, 2010
RAI 420 — 03.02.01-14	November 23, 2010
RAI 420 — 03.02.01-15	November 23, 2010
RAI 420 — 03.02.01-16	November 23, 2010
RAI 420 — 03.02.01-17	November 23, 2010
RAI 420 — 03.02.02-7	November 23, 2010
RAI 420 — 03.02.02-8	November 23, 2010
RAI 420 — 03.02.02-9	November 23, 2010
RAI 420 — 03.02.02-10	November 23, 2010
RAI 420 — 03.02.02-11	November 23, 2010

Sincerely,

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

From: Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]
Sent: Monday, July 26, 2010 7:20 AM
To: ZZ-DL-A-USEPR-DL
Cc: McNally, Richard; Dixon-Herrity, Jennifer; Patel, Jay; Miernicki, Michael; Colaccino, Joseph
Subject: U.S. EPR Design Certification Application RAI No. 420 (4687,4661), FSAR Ch. 3, OPEN ITEM

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on June 15, 2010, and on July 19, 2010, 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_Docs_Public
Email Number: 16

Mail Envelope Properties (B13FF3C366E1F64F8CF2CE718C6799221340E6)

Subject: Response to U.S. EPR Design Certification Application RAI No. 420, FSAR Ch. 3, OPEN ITEM, Supplement 12
Sent Date: 6/19/2013 4:20:33 PM
Received Date: 6/19/2013 4:20:50 PM
From: KOWALSKI David (AREVA)

Created By: David.Kowalski@areva.com

Recipients:
"Miernicki, Michael" <Michael.Miernicki@nrc.gov>
Tracking Status: None
"ANDERSON Katherine (EXTERNAL AREVA)" <katherine.anderson.ext@areva.com>
Tracking Status: None
"DELANO Karen (AREVA)" <Karen.Delano@areva.com>
Tracking Status: None
"LEIGHLITER John (AREVA)" <John.Leighliter@areva.com>
Tracking Status: None
"LEWIS Ray (EXTERNAL AREVA)" <Ray.Lewis.ext@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
"SHEPHERD Tracey (AREVA)" <Tracey.Shepherd@areva.com>
Tracking Status: None
"VANCE Brian (AREVA)" <Brian.Vance@areva.com>
Tracking Status: None
"GUCWA Len (EXTERNAL AREVA)" <Len.Gucwa.ext@areva.com>
Tracking Status: None
"KOWALSKI David (AREVA)" <David.Kowalski@areva.com>
Tracking Status: None
"WILLIFORD Dennis (AREVA)" <Dennis.Williford@areva.com>
Tracking Status: None
"NOXON David (AREVA)" <David.Noxon@areva.com>
Tracking Status: None
"Snyder, Amy" <Amy.Snyder@nrc.gov>
Tracking Status: None

Post Office: FUSLYNCMX03.fdom.ad.corp

Files	**Size**	**Date & Time**
MESSAGE	24579	6/19/2013 4:20:50 PM
RAI 420 Supplement 12 US EPR DC.pdf	545637	

Options
Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal

Expiration Date:
Recipients Received:

Response to

Request for Additional Information No. 420, Supplement 12

7/26/2010

U.S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 03.02.01 - Seismic Classification
SRP Section: 03.02.02 - System Quality Group Classification

Application Section: 3.2.1

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

Question 03.02.01-12:

OPEN ITEM

FSAR Subsection 3.2.1.1 in combination with Subsection 3.1.1.2.1 identify that safety-related SSCs are designed either to withstand the effects of natural phenomena, including the SSE, without loss of capability to perform their safety-functions, or to fail in a safe condition. GDC 2 actually applies to all important to safety SSCs and not only SSCs that are considered safety related. In RAI 03.02.01-1, the staff requested the applicant to expand FSAR Subsections 3.2 and 3.1.1.2.1 to clarify how GDC 2 is satisfied relative to SSCs that are not identified as safety-related, but are considered important to safety and have augmented seismic requirements, such as the nonsafety-related fire protection system or any SSC that is classified as Seismic Category II. The RAI response gave several examples from earlier NRC documents that definitions of safety-related and important to safety are the same. The applicant also stated that U.S. EPR conforms to the RGs (1.29, 1.143, 1.151 and 1.189) listed in the SRP 3.2.1; therefore, the U.S. EPR SSCs are designed to the requirements of GDC 2.

Based on the applicant's RAI response, the applicant's process to apply the terms safety-related and important to safety to the classification of SSCs is considered unclear and unresolved such that additional information is needed to clarify how these terms are applied and to explain the process to develop supplemental quality requirements (special treatment) for nonsafety-related risk-significant SSCs considered important to safety to satisfy GDC 2. To comply with GDC 2 for seismic classification, further clarify how these terms are applied to satisfy GDC 2, revise the FSAR subsection 3.1.1.2.1 stated conformance to GDC 1 to replace the term "safety related" with the more comprehensive term "important to safety" and factor risk significance into quality group classification, based on the definition of the term important to safety in 10 CFR 50.

In regard to risk significance, the Staff is concerned that the applicant has not adequately identified risk-significant SSCs in the FSAR that may be important to safety or defined supplemental design and quality requirements to ensure their availability after an earthquake and reliability assumed in the PRA. Portions of nonsafety-related systems that are risk-significant may be important to safety and require special treatment and appropriate seismic classification so that they are designed to withstand earthquakes consistent with assumptions in the PRA. The complete list of risk-significant SSCs is developed in phases and SRP 17.4 indicates that, during the first phase, SSCs are identified for inclusion in the program. The response to RAI 17.4-1 includes a component list as PRA input to the RAP component identification process and the response to RAI 17.04-2 identifies that the full scope RAP will include passive components and the COL applicant is to provide the final list. The response to RAI 17.04-16 further identified that the FSAR will be revised to include a list of risk-significant SSCs. Since risk-significant SSCs are to be included in Section 17.4 of the DCD, the scope of risk-significant SSCs is to be evaluated in that subsection in combination with the Chapter 19 evaluation. The supplemental seismic requirements needed to satisfy GDC 2 for risk-significant SSCs are unclear and the applicant should either identify these specific requirements or explain the process, such as D-RAP and the NS-AQ classification process, used to develop and apply these requirements. For example, the basis for concluding that all risk-significant SSCs important to safety are designed to withstand earthquakes should be identified.

Response to Question 03.02.01-12:

The U.S. EPR Design does not apply the term "important to safety" to the classification of structures, systems, and components (SSC). The term "important to safety" is only used in the context of quoting the requirements of the general design criteria (GDC). In the case of GDC 2, the guidance in Regulatory Guide 1.29 refers to 10 CFR 50 Appendix S for a definition of what SSC must remain functional if the safe-shutdown earthquake ground motion occurs. The criteria in 10 CFR 50 Appendix S is the same as the definition of “safety-related” in 10 CFR 50.2. Thus, there is no need to replace the term “safety-related” with “important to safety” in reference to GDC 2 in U.S. EPR FSAR Tier 2, Section 3.2.2.1. Replacing the term “safety-related” with “important to safety” would also be inconsistent with the NRC acceptance criteria in SRP 3.2.1 that states, “To meet the requirements of GDC 2, 10 CFR Part 100, Appendix A, and 10 CFR Part 50, Appendix S regarding seismic design classification are met by using guidance provided in RG 1.29 “Seismic Design Classification.” The following U.S. EPR FSAR Tier 2 sections and table were previously revised to clarify the use of the terms “safety-related” and “important to safety”:

- U.S. EPR FSAR Tier 2, Section 3.1.2.8.1.
- U.S. EPR FSAR Tier 2, Section 3.2.
- U.S. EPR FSAR Tier 2, Section 3.5.
- U.S. EPR FSAR Tier 2, Section 3.5.1.2.
- U.S. EPR FSAR Tier 2, Section 3.6.2.3.
- U.S. EPR FSAR Tier 2, Section 4.1.1.
- U.S. EPR FSAR Tier 2, Section 4.6.2.
- U.S. EPR FSAR Tier 2, Section 9.5.4.4.
- U.S. EPR FSAR Tier 2, Section 9.5.5.4.
- U.S. EPR FSAR Tier 2, Section 9.5.6.4.
- U.S. EPR FSAR Tier 2, Section 9.5.7.4.
- U.S. EPR FSAR Tier 2, Section 9.5.8.4.
- U.S. EPR FSAR Tier 2, Section 9A.1.2.
- U.S. EPR FSAR Tier 2, Section 9A.2.2.
- U.S. EPR FSAR Tier 2, Section 10.4.5.2.3.
- U.S. EPR FSAR Tier 2, Section 14.2.

- U.S. EPR FSAR Tier 2, Table 9A-2.

Based on discussions with the NRC and on clarification of the issues involved with this question (see RAI 435, Question 03.02.02-12), a more detailed discussion on the U.S. EPR design process for QA and seismic classification along with a discussion of the treatment of RAP related SSC is provided below.

U.S. EPR Design SSC QA and Seismic Classification Discussion

As described in U.S. EPR FSAR Tier 2, Section 3.2, the U.S. EPR safety classification methodology uses the following designations:

- Safety-related: S.
- Non-safety-related: NS.
- Supplemented Grade: NS-AQ.

Safety-related SSC are all treated as important to safety with respect to the applicable GDC. Safety-related SSC have a full 10 CFR 50, Appendix B quality assurance program applied along with the applicable GDC, such as the designation of Seismic Category I to meet the requirements of GDC 2. U.S. EPR FSAR Tier 2, Section 17.5 references the AREVA NP Inc. Quality Assurance Plan for Design Certification of the U.S. EPR Topical Report (ANP-10266A) that describes the QA requirements applicable to all safety-related SSC.

In the case of assigning quality group classifications applied to SSC, compliance with GDC 1 is achieved through meeting the guidance in Regulatory Guide 1.26 as specified in SRP 3.2.2. As described in U.S. EPR FSAR Tier 2, Section 3.2.2, the quality group classification of the U.S. EPR SSC conforms to the guidance of Regulatory Guide 1.26.

Some non-safety-related SSC are designated as supplemented grade (NS-AQ) as described in U.S. EPR FSAR Tier 2, Section 3.2. Supplemented grade (NS-AQ) is a classification applied to SSC for which a significant licensing requirement or commitment applies, but where the SSC functions do not meet the 10 CFR 50.2 definition of “safety-related.” Examples of SSC typically classified as supplemented grade include:

- Some post accident instrumentation (Regulatory Guide 1.97).
- Radwaste (Regulatory Guide 1.143).
- Some SSC required to respond to or mitigate the consequences of a station blackout (SBO) (Regulatory Guide 1.155).

Significant licensing requirements or commitments are identified in ANP-10292, “U.S. EPR™ Conformance with Standard Review Plan (NUREG-0800) Technical Report.”

For the U.S. EPR design, the application of additional quality assurance measures associated with non-safety-related SSC is as follows:

- Supplemented grade SSC (NS-AQ) where the “significant licensing requirement or commitment” specifically invokes portions of 10 CFR 50 Appendix B Quality Assurance program requirements are designated as “Yes” for the 10 CFR 50 Appendix B column of the SSC classification table (U.S. EPR FSAR Tier 2, Table 3.2.2-1). A qualifying statement is provided that only pertinent sections of 10 CFR 50 Appendix B apply. For example, SSC

that are classified as Seismic Category II are subject to the pertinent requirements of 10 CFR 50 Appendix B per Regulatory Guide 1.29.

- Supplemented Grade SSC (NS-AQ) where the "significant licensing requirement or commitment" does not specifically invoke 10 CFR 50 Appendix B Quality Assurance program requirements are designated as "No" for the 10 CFR 50 Appendix B column of the SSC classification table (U.S. EPR FSAR Tier 2, Table 3.2.2-1). For example, Regulatory Guide 1.143 notes that SSC in radioactive waste management systems have only a minimum impact on safety, so they need not be controlled according to 10 CFR 50 Appendix B Quality Assurance program requirements. Applicable QA requirements are taken from RG 1.143 in this case.
- Non-safety-related SSC (NS) are designated as "No" in the 10 CFR 50 Appendix B column of the SSC classification table (U.S. EPR FSAR Tier 2, Table 3.2.2-1).

For the U.S. EPR design, seismic classification of SSC is described in U.S. EPR FSAR Tier 2, Section 3.2.1.

The U.S. EPR design is "deterministic" and does not invoke 10 CFR 50.69 to risk-classify SSC and does not implement risk-based programs (e.g., IST, ISI, Fire Protection). As noted in U.S. EPR FSAR Tier 2, Section 19.1.1.1, "The PRA is not used for any formal risk-informed applications, such as 10 CFR 50.69, Risk-Informed Categorization and Treatment of structures, systems and components (SSC) and 10 CFR 50.48, Fire Protection." Risk significance is also not part of the SSC classification procedure for the U.S. EPR design. Since the classification process is deterministic, safety classifications, seismic classifications and quality group classifications are not selected on the basis of the risk significance of the SSC.

However, as described below the U.S. EPR design process is risk informed.

U.S. EPR RAP SSC Treatment

For the U.S. EPR design, a list of SSC determined to be risk-significant by the Reliability Assurance Program (RAP) is provided in U.S. EPR FSAR Tier 2. Components and system structures within a RAP designated system could be considered to be risk-significant under the RAP program. Further screening may be performed during detailed design at a system function or individual component level.

Safety-related SSC that are also determined to be risk significant in the RAP have a full 10 CFR 50, Appendix B quality assurance program applied, along with the applicable GDC.

For non-safety-related SSC that have been determined to be "risk-significant" under the RAP in U.S. EPR FSAR Tier 2, Section 17.4, the U.S. EPR design applies additional quality assurance measures and design requirements of Addendum A to 10 CFR 50, Appendix B, which is consistent with the guidance in SRP 17.5, Part V, "Non-Safety Related SSC Quality Controls." These additional quality assurance measures are described in the approved Topical Report ANP-10266A, Addendum A, and are applied to all risk-significant SSC during the design certification.

U.S. EPR FSAR Tier 2, Section 17.4.2 was previously revised to describe the application of QA to SSC on the RAP list and to reflect the commitment to U.S. EPR QAPD, Addendum A, parts A-1 through A-19 for all non-safety-related RAP SSC. U.S. EPR FSAR Tier 2, Section 3.2 will

be revised to cross reference U.S. EPR FSAR Tier 2, Section 17.4.2 for a description of how quality assurance is applied to risk significant SSC.

The U.S. EPR RAP implementation process described in U.S. EPR FSAR Tier 2, Section 17.4 provides reasonable assurance that SSC related RAP information (e.g., significant functions and failure modes) are reflected in the design and transmitted to the combined license (COL) applicant to support the procurement, fabrication, construction, and initial testing activities associated with the risk-significant SSC. This process provides reasonable assurance that both safety- and non-safety-related functions, including functions that are considered to be risk-significant, are appropriately considered in the design of the SSC.

For seismic risk significance determination, the U.S. EPR design uses a PRA-based seismic margin assessment to determine seismic-related risk significance as part of an overall input to the reliability assurance program. The U.S. EPR PRA-based seismic margin assessment does not credit any non-seismic equipment to meet the commitment for a high confidence low probability of failure plant-level capacity of 1.67 times the safe shutdown earthquake (SSE). Therefore, no additional risk significant SSC currently classified as non-seismic are required to meet GDC 2 or any other licensing commitments related to seismic design.

Related to the RAP SSC, at a plant level, safety-significant features based on PRA insights and severe accident analyses are identified in U.S. EPR FSAR Tier 2, Table 14.3-6, that are verified by corresponding ITAAC. Significant PRA-related insights and assumptions are also documented in U.S. EPR FSAR Tier 2, Table 19.1-108 and Table 19.1-109, respectively. U.S. EPR FSAR Tier 2, Section 19.1.2.2, COL item 19.1-9, confirms that the assumptions used in the PRA remain valid for the as-designed, as-built plant. PRA-related equipment reliability assumptions are also verified and maintained through the implementation of the maintenance rule by the COL applicant. Together these measures provide reasonable assurance that SSC reliability assumptions are confirmed and maintained throughout the life cycle of the plant. U.S. EPR FSAR Tier 2, Section 17.4.2 has been revised to reflect a commitment to the maintenance rule program for RAP related SSC.

To incorporate the broader definition of important to safety, U.S. EPR FSAR Tier 2, Sections 3.1.1.1.1, 3.1.1.2.1, 3.2, and 3.2.1 will be revised to appropriately reference back to the PRA and RAP program for information on risk-significant SSC.

FSAR Impact:

U.S. EPR FSAR Tier 2, Section 3.1, Section 3.2 and Table 3.2 will be revised as described in the response and indicated on the enclosed markup.

Question 03.02.02-7:

OPEN ITEM

General Design Criterion 1 identifies, in part, that structures systems and components important to safety shall be designed, fabricated, erected and tested to quality standards commensurate with the importance of the safety functions to be performed. Where generally recognized codes and standards are used, they shall be supplemented or modified as necessary to assure a quality product in keeping with the required safety function. The QA Plan described in Topical Report ANP-10266A, Revision 1 applies to both safety-related and nonsafety-related SSCs, but this report does not identify a specific list of important to safety SSCs that require application of the 10 CFR 50 Appendix B QA Program or the list of nonsafety-related SSCs that apply the QA program that is not consistent with Appendix B. Table 3.2.2-1 of the DCD does include a list of safety-related and nonsafety-related SSCs defined as NS-AQ that require the application of an Appendix B Program, but the list of specific nonsafety-related SSCs that apply the quality assurance program that is not consistent with Appendix B is not clearly defined. In RAI 03.02.02-2, the applicant was requested to clarify which nonsafety-related SSCs apply the QA Program for nonsafety-related SSCs and identify if these SSCs have a unique quality classification.

The RAI response identifies that SSCs classified as supplemental grade (NS-AQ) are included in the 10 CFR 50 Appendix B QA Program, if inclusion is explicitly invoked by the relevant significant licensing requirement or commitment. The response references the response to RAI 03.02.01-1 for further discussion of the NS-AQ classification. The Staff is concerned that SSCs with a Safety Classification of NS-AQ that may be important to safety do not consistently invoke the 10 CFR 50 Appendix B program or elements of a similar program. For example, the Station Blackout Diesel Generator Set is considered risk-significant and is classified as NS-AQ, but there is no 10 CFR 50 Appendix B program or similar special treatment identified in the Classification Table 3.2.2-1. The applicant is requested to review classification Table 3.2.2-1 and identify those additional risk-significant SSCs that should apply the 10 CFR 50 Appendix B program or similar special treatment provisions.

Response to Question 03.02.02-7:

The question states that the station blackout (SBO) diesel generator set is considered risk-significant and is classified as NS-AQ. The basis for the non-safety-related supplemented grade (NS-AQ) is that, as noted in U.S. EPR FSAR Tier 2, Section 3.2, a significant licensing requirement or commitment applies. ANSI/ANS 58-14 ANSI/ANS-58.14-1993, Section 5.6 states a “significant licensing requirement or commitment is one that is based on an NRC regulation or licensing guidance.” In the case of the SBO diesel generator set, the “significant licensing requirement or commitment” that applies is 10 CFR 50.63 along with the pertinent regulatory guidance.

As noted in U.S. EPR FSAR Tier 2, Section 3.2, “Non-safety-related SSC are not included in the 10 CFR 50, Appendix B quality assurance program. However, the non-safety-related SSC that are classified as supplemented grade (NS-AQ) will be included in the 10 CFR 50, Appendix B quality assurance program if inclusion is explicitly invoked by the relevant ‘significant licensing requirement or commitment’.” For example, structures, systems, and components (SSC) that are classified as NS-AQ because they are Seismic Category II, have 10 CFR 50, Appendix B applied, consistent with the guidance in RG 1.29 Regulatory Position C.4. This is also

consistent with the guidance of SRP 3.2.1 that states: "The requirements of 10 CFR Part 50, Appendix B apply to activities affecting the safety-related functions of those SSC, including those SSC defined by the guidance of RG 1.29 as Seismic Category I SSCs."

AREVA NP also applies 10 CFR 50, Appendix B to components that are NS-AQ and non-seismic (NSC) if required by the "significant licensing requirement or commitment." In the case of the SBO Diesel Generator Set, as noted in NRC approved AREVA NP Topical Report, ANP-10266A, Section A-19:

> "AREVA NP Inc. implements quality requirements to SBO equipment in accordance with Regulatory Position 3.5, "Quality Assurance and Specific Guidance for SBO Equipment that is not Safety-Related," and Appendix A, "Quality Assurance Guidance for Non-Safety Systems and Equipment," in Regulatory Guide 1.155, "Station Blackout."

RG 1.155 specifically addresses the QA requirements necessary for non-safety SSCs used to meet 10 CFR 50.63.

There is, therefore, no regulatory basis for imposing 10 CFR Part 50, Appendix B to the SBO diesel generator set. As noted in ANP-10266A and U.S. EPR FSAR Tier 2, Section 8.4.1, AREVA NP conforms to the guidance of RG 1.155 for SBO.

The application of quality assurance controls to SSC identified as "risk-significant" under the Reliability Assurance Program (RAP) is addressed in the Response to Question 3.2.1-12 of this RAI.

U.S. EPR FSAR Tier 2, Section 3.2 and Table 3.2.2-1, "Comments/Commercial Codes" column will be revised to include the bases for "NS-AQ" SSC classifications with a note added describing how quality assurance is applied to the supplemental grade "NS-AQ" items.

FSAR Impact:

U.S. EPR FSAR, Tier 2, Section 3.2 and Table 3.2.2-1 will be revised as described in the response and indicated on the enclosed markup.

U.S. EPR Final Safety Analysis Report Markups

codes and standards, and applicable quality control program for each component is provided in Section 3.2.

03.02.01-12

To address the broader ~~concept~~ definition of important to safety in the context of GDC 1, non-safety-related, risk significant SSC identified by the reliability assurance program (RAP) will be subject to the additional QA measures, as described in Section 17.4.2.

3.1.1.2 Criterion 2 – Design Bases for Protection Against Natural Phenomena

"Structures, systems, and components important to safety shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of the capability to perform their safety functions. The design bases for these structures, systems, and components shall reflect: (1) Appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated, (2) appropriate combinations of the effects of normal and accident conditions with the effects of the natural phenomena, and (3) the importance of the safety functions to be performed."

3.1.1.2.1 U.S. EPR Compliance

The safety-related SSC are designed either to withstand the effects of natural phenomena without loss of the capability to perform their safety functions, or to fail in a safe condition. The nature and magnitude of the natural phenomena considered in the U.S. EPR design are described in Chapter 2. The U.S. EPR design criteria for wind, tornado, hurricane, flood, and earthquakes are discussed in Section 3.3, Section 3.4, and Section 3.7, respectively.

The U.S. EPR design envelopes the natural phenomena of expected sites. The design bases for safety-related SSC reflect this envelope of natural phenomena, including appropriate combinations of the effects of normal and accident conditions. Seismic and other design classifications, as well as other pertinent standards and information, are provided in the sections that discuss individual SSC.

03.02.01-12

To address the broader ~~concept~~ definition of important to safety in the context of GDC 2, SSC credited in the PRA analysis of external events are qualified for natural phenomena, as described in Sections 19.1.5.1 and 19.1.5.4.

3.1.1.3 Criterion 3 – Fire Protection

"Structures, systems, and components important to safety shall be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions. Noncombustible and heat resistant materials shall be used

As a result, application of the U.S. EPR safety classification methodology logically allows both the identification of safety-related systems that include non-safety-related components, and the identification of non-safety-related systems that include safety-related components.

In addition to safety-related and non-safety-related, the U.S. EPR safety classification methodology has a third classification which includes SSC that are by definition non-safety-related, but to which a "significant licensing requirement or commitment" applies. A "significant licensing requirement or commitment" is a practice that is based on an NRC regulation or licensing guidance that applies to SSC that do not meet the 10 CFR 50.2 definition of safety-related. These SSC are classified as supplemented grade.

The U.S. EPR safety classification methodology uses the following designations:

- Safety-related: S.
- Non-safety-related: NS.
- Supplemented Grade: NS-AQ.

U.S. EPR SSC that are classified as safety-related are subject to the quality assurance program requirements of 10 CFR 50, Appendix B. Non-safety-related SSC are not included in the 10 CFR 50, Appendix B quality assurance program. However, those non-safety-related SSC that are classified as supplemented grade will be included in the 10 CFR 50, Appendix B quality assurance program if inclusion is explicitly invoked by the relevant "significant licensing requirement or commitment." ~~Also see Section 17.4.2 for a description of how quality assurance is applied to risk significant SSC~~To address the broader definition of important safety, risk significant SSC are identified by the reliability assurance program as described in Section 17.4 and quality assurance is applied to the risk significant SSC as described in Section 17.4.2.

03.02.01-12

Table 3.2.2-1—Classification Summary lists the safety classification of U.S. EPR SSC.

03.02.02-7

See the "Comments/Commercial Code" column of Table 3.2.2-1 for the bases for supplemental grade classification and notes on the application of quality assurance to SSC classified as "NS-AQ"

Classification of fire protection systems in accordance with RG 1.189 is described in Section 9.5.1.

3.2.1 Seismic Classification

GDC 2 requires in part that "structures, systems, and components important to safety shall be designed to withstand the effects of natural phenomena such as earthquakes…without loss of capability to perform their safety functions." In

addition, 10 CFR 50.34(a)(12) requires that—in order to comply with the earthquake provisions of GDC 2—the U.S. EPR comply with the earthquake engineering criteria of 10 CFR 50, Appendix S. 10 CFR 50, Appendix S defines the safe shutdown earthquake (SSE) as the "vibratory ground motion for which certain structures, systems, and components must be designed to remain functional."

10 CFR 50, Appendix S states "the structures, systems, and components required to withstand the effects of the Safe Shutdown Earthquake Ground Motion or surface deformation are those necessary to assure:

1. The integrity of the reactor coolant pressure boundary;

2. The capability to shut down the reactor and maintain it in a safe shutdown condition; or

3. The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guideline exposures of §50.34(a)(1)."

To meet the requirements of both GDC 2 and 10 CFR 50, Appendix S with regard to the design for earthquakes, U.S. EPR SSC are seismically classified in accordance with RG 1.29.

Radioactive waste management SSC are explicitly excluded from the seismic classification requirements of RG 1.29. However, they meet the seismic design criteria specified in RG 1.143 (refer to Sections 11.2, 11.3, and 11.4) and GDC 61 as it relates to the design of radioactive waste systems and other systems that may contain radioactivity. Safety-related instrument sensing lines meet the seismic design requirements specified in RG 1.151.

The seismic classification of U.S. EPR SSC uses the following categories: Seismic Category I, Seismic Category II, radwaste seismic, conventional seismic, and non-seismic.

Table 3.2.2-1 lists the seismic classification of U.S. EPR SSC. A COL applicant that references the U.S. EPR design certification will identify the seismic classification of applicable site-specific SSC that are not identified in Table 3.2.2-1.

03.02.01-12

The piping and instrumentation diagrams (P&IDs) of U.S. EPR systems indicate the Seismic Category I boundaries when portions of a system are not Seismic Category I. A list of U.S. EPR piping and instrumentation diagrams is provided in Section 1.7.

To address the broader ~~concept~~ definition of important to safety in the context of seismic classification, only seismically designed SSC are credited in the probabilistic risk assessment-based seismic margin (refer to Section 19.1.5.1.2.4 and Table 19.1-106).

Table 3.2.2-1—Classification Summary
Sheet 1 of 223

KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
REACTOR COOLANT SYSTEM							
JE, JA, JDA	**Reactor Coolant System**						
30JEF10 AA009/010	Bypass Valves for PDS Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JEC10/20/30/40	Cold Leg Instrument Piping and Root Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEC10/20/30/40 BR003	Cold Leg Piping	S	A	I	Yes	UJA	ASME Class 1[1]
JDA	Control Rod Drive Mechanism - Bottom Position Limit Sensors	S	N/A	I	Yes	UJA	
JDA	Control Rod Drive Mechanism - Latch Mechanism	S	N/A	I	Yes	UJA	
JDA	Control Rod Drive Mechanism - Operating Coils	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
JDA	Control Rod Drive Mechanism - Pressure Boundary	S	A	I	Yes	UJA	ASME Class 1[1]

Table 3.2.2-1—Classification Summary
Sheet 2 of 223

KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEC10/20/30/40	Cross-over Leg Instrument Piping and Root Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEC10/20/30/40 BR002	Cross-over Leg Piping	S	A	I	Yes	UJA	ASME Class 1[1]
JAC	Heavy Reflector - Centering Pins	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	Heavy Reflector - Normal and Centering Rings	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	Heavy Reflector - Positioning Keys	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	Heavy Reflector - Slabs	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	Heavy Reflector - Tie Rods	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	Heavy Reflector - Upper Core Plate Guide Pins	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	Heavy Reflector - Vertical Keys	S	B	I	Yes	UJA	ASME Class CS[4]
30JEC10/20/30/40	Hot Leg Instrument Piping and Root Valves	S	A	I	Yes	UJA	ASME Class 1[1]

Table 3.2.2-1—Classification Summary
Sheet 3 of 223

KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEC10/20/30/40 BR001	Hot Leg Piping	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 BR004	PDS Discharge Line Pipe #1	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 BR006	PDS Discharge Line Pipe #2	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 AA004-007	PDS Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JAA10	Post Accident High Point Vent Piping (downstream of Valves 30JAA10 AA509/511)	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25] 10 CFR 50.46a[25]
30JAA10	Post Accident High Point Vent Piping (upstream of Valves 30JAA10 AA508/ 510)	S	A	I	Yes	UJA	ASME Class 1[1]
30JAA10 AA508-511	Post Accident RPV High Point Vent Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 BB001	Pressurizer	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10	Pressurizer Auxiliary Spray Line & Valve	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 AA002/003	Pressurizer By-Pass Manual Spray Valves	S	A	I	Yes	UJA	ASME Class 1[1]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEF10 BR002/003	Pressurizer By-Pass Spray Lines	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 BR402	Pressurizer Degassing Drain Line Pipe #1	S	B	I	Yes	UJA	ASME Class 2[2]
30JEG10 BR403	Pressurizer Degassing Drain Line Pipe #2	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30JEF10 AA402/403	Pressurizer Degassing Drain Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEG10	Pressurizer Degassing Piping & Valves (downstream of Valve 30JEF10 AA504)	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7] RG 1.29[25]
30JEG10	Pressurizer Degassing Piping & Valves (upstream of Valve 30JEF10 AA503)	S	B	I	Yes	UJA	ASME Class 2[2]
30JEF10 AA503/504	Pressurizer Degassing Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEF10 AH	Pressurizer Heater Assemblies - Pressure Boundary	S	A	I	Yes	UJA	ASME Class 1[1]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEF10 BR301/302/303/304 and 30JEF10 AA301/302/303/304	Pressurizer Upper Instrumentation Piping and Root Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 BR305/306/307/308 and 30JEF10 AA305/306/307/308	Pressurizer Lower Instrumentation Piping and Root Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEF10 BR102/103	Pressurizer Normal Spray Lines	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 AA102/103	Pressurizer Normal Spray Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JEG10	Pressurizer Relief Tank and Associated Piping & Valves (downstream of PSRV and PDS Valves)	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7], ASME VIII[8] RG 1.29[25]
30JEF10	Pressurizer Sampling Line & Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30JEC30 BR004	Pressurizer Surge Line	S	A	I	Yes	UJA	ASME Class 1[1]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEG10	Pressurizer Vacuum Pump/Nitrogen Piping & Valves (downstream of Valve 30JEF10 AA502)	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7] RG 1.29[25]
30JEF10 BR501	Pressurizer Vacuum Pump/Nitrogen Supply Line	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 AA501/502	Pressurizer Vacuum Pump/Nitrogen Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JEF10 AA191-193	PSRVs	S	A	I	Yes	UJA	ASME Class 1[1]
30JEB10/20/30/40	RCP Motors - Rotating Assemblies/ Bearings/Bearing Supports/Motor Frames	S	N/A	I	Yes	UJA	ASME III Allowables as applicable
30JEB10/20/30/40	RCP Motors - Oil Collection Pipe, Valves, and Tanks	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7], API 620[10] RG 1.29[25] RG 1.189[25]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEB10/20/30/40	RCP Motors - Oil Coolers/Air Coolers/ Oil Lift Pumps (non-motor)	S	C	I	Yes	UJA	ASME Class 3[3]
30JEB10/20/30/40	RCP Motors - Remaining Parts	NS-AQ	N/A	II	Yes	UJA	NEMA MG 1-2006 RG 1.29[25]
30JEB10/20/30/40	RCP Seal #1 Injection Line Auxiliary Piping and Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEB10/20/30/40	RCP Seal #1 Sweeping Line Auxiliary Piping and Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30JEB10/20/30/40	RCP Seal #2 Auxiliary Piping and Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7] RG 1.29[25] RG 1.155[25]
30JEB10/20/30/40	RCP Seal #3 Auxiliary Piping and Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7] RG 1.29[25] RG 1.155[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JEB10/20/30/40	RCP Standstill Seal System Auxiliary Piping and Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7], RG 1.29[25] RG 1.155[25]
30JEB10/20/30/40	RCP Thermal Barrier Auxiliary Piping and Valves	S	C	I	Yes	UJA	ASME Class 3[3]
30JEB10/20/30/40 AP001	Reactor Coolant Pump Bodies	S	A	I	Yes	UJA	ASME Class 1[1]
30JAH10 BU	Reactor Coolant System Insulation	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
30JAA10 BB001	Reactor Pressure Vessel Pressure Boundary	S	A	I	Yes	UJA	ASME Class 1[1]
30JAA10BB001	Reactor Pressure Vessel (Radial Keys)	S	B	I	Yes	UJA	ASME Class CS[4]
30JAA10	RPV High Point Vent Piping & Valves (downstream of Valve 30JAA10 AA502)	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7] RG 1.29[25] 10 CFR 50.46a[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JAA10	RPV High Point Vent Piping (upstream of Valve 30JAA10 AA501)	S	A	I	Yes	UJA	ASME Class 1[1]
30JAA10 AA501/502	RPV High Point Vent Valves	S	A	I	Yes	UJA	ASME Class 1[1]
JAC	RPV Internals - Control Rod Drive Mechanism Adaptor Thermal Sleeves	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
30JAB	RPV Refueling Cavity Ring	S	N/A	I	Yes	UJA	Note 24
JAC	RPV Internals - Handling Studs and Inserts	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Internals - Head and Vessel Alignment Pins	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Internals - Hold Down Spring	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	RPV Internals - Radial Key Inserts	S	B	I	Yes	UJA	ASME Class CS[4]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JAC	RPV Lower Internals - Core Barrel (Flange and Shells)	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	RPV Lower Internals - Dome Spray Nozzles	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Lower Internals - Flow Distribution Device	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Lower Internals - Fuel Assembly Guide Pin	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	RPV Lower Internals - Irradiation Capsule Access Plug	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Lower Internals - Irradiation Capsule Basket	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Lower Internals - Lower Support Plate	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	RPV Lower Internals - Radial Key Inserts	S	B	I	Yes	UJA	ASME Class CS[4]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JAA10	RPV O-Ring Leakoff Piping & Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7] RG 1.29[25]
JAC	RPV Upper Internals - Control Rod Guide Assembly	S	N/A	I	Yes	UJA	ASME Class CS[4] (Internal Structure)
JAC	RPV Upper Internals - Control Rod Guide Assembly Columns	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	RPV Upper Internals - Control Rod Guide Assembly Support Pins	S	B	I	Yes	UJA	ASME Class CS[4]
JAC	RPV Upper Internals - Guide Tubes for Incore Instrumentation	S	N/A	I	Yes	UJA	ASME Class CS[4] (Internal Structure)
JAC	RPV Upper Internals - Level Measurement Probe Columns	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]
JAC	RPV Upper Internals - Level Measurement Probe Upper Housing	NS-AQ	N/A	II	Yes	UJA	ASME Class CS[4] (Internal Structure) RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JNG40 AA008	SAHRS-IRWSTS 2nd Isolation Valve	S	B	I	Yes	UJH	ASME Class 2[2]
30JNG13/23/33/43 AA005	SIS 1st RCPB Isolation Valve	S	A	I	Yes	UJA	ASME Class 1[1]
30JNG13/23/33/43 BB001	SIS Accumulator	S	B	I	Yes	UJA	ASME Class 2[2]
JNK	**In-Containment Refueling Water Storage Tank System**						
JNK	All incoming Piping and Valves to the IRWST from the Safety Injection System	S	B	I	Yes	UJA, UJH	ASME Class 2[2]
JNK	Back-flushing for SIS strainers: Piping and Valves from FAL (ILCO) to the IRWST	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Penetrates IRWST boundary RG 1.29[25]
JNK	CVCS/FPPS Suction Line: Piping and Valves from IRWST to 30JNK10 AA013	S	B	I	Yes	UJA, UJH	ASME Class 2[2]
30JNK10 AT003	CVCS/FPPS Sump Strainer	NS-AQ	N/A	II	Yes	UJA	ANSI/AISC N690-1994(R2004)s2 [13] RG 1.29[25]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JNK	FPPS supply: Piping and Valve from FAL (30FAL16 AA102) to the IRWST	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Penetrates IRWST boundary RG 1.29[25]
30JNK11 AA009	IRWST Isolation Valve for SAHRS	S	B	I	Yes	UJH	ASME Class 2[2]
30JNK10 AA009/013	IRWST Isolation Valves for CVCS and FPPS	S	B	I	Yes	UJH	ASME Class 2[2]
30JNK10 AA010/011 30JNK11 AA010/011	MHSI Miniflow Line Check Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30JNK10/11 AT004/ 005	IRWST Retaining Baskets	S	N/A	I	Yes	UJA	ANSI/AISC N690-1994(R2004)s2 [13]
30JNK00 BB001	IRWST Tank	S	N/A	I	Yes	UJA	ACI 349R
30JNK10/20/30/40 AA001	IRWST Three-way Isolation Valves for SIS	S	B	I	Yes	UJH	ASME Class 2[2]
JNK	RCDT Overpressure Protection Line: Piping Downstream of RCDT to IRWST	S	C	I	Yes	UJA	ASME Class 3[3]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JNK	Reactor Building cavities Draining: Piping from FAL (30FAL16 AA003) to the IRWST	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Penetrates IRWST boundary RG 1.29[25]
JNK	Reactor Building cavities overflow: Piping from FAL (30FAL10 AA411) to the IRWST	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Penetrates IRWST boundary RG 1.29[25]
JNK	SAHRS Suction Line: Piping and Valve from IRWST to 30JNK11 AA009	S	B	I	Yes	UJA, UJH	ASME Class 2[2]
30JNK11 AT003	SAHRS Sump Strainer	NS-AQ	N/A	II	Yes	UJA	ANSI/AISC N690-1994(R2004)s2 [13] RG 1.29[25]
30JNK10/11 AA004-007	SIS Strainer Back-flush Isolation Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
JNK	SIS Suction Lines: Piping and Valve from IRWST to Valves 30JNK10/20/30/40 AA001	S	B	I	Yes	UJA, UJH	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JDH10/40	Discharge Piping, Valve, & Flow Meter Upstream of & including the Outside Containment Isolation Valve	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/20/30/40	Discharge Piping, Valves, & Flow Meters Downstream of the Outside Containment Isolation Valve up to the RCS Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30JDH10 BR054	Hydrotest Line	NS	E	NSC	No	UFA	ANSI/ASME B31.1[6]
30JDH10 AA054	Hydrotest Line Isolation Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
JDH10	Hydrotest Line Piping & Valves Upstream of & including JDH10 AA053	S	B	I	Yes	UFA	ASME Class 2[2]
30JDH10 BR021	IRWST Suction Line	NS	D	NSC	No	UFA	ANSI/ASME B31.1[6]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JDH10 AA021	IRWST Suction Line Isolation Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
JDH10/40 AP001	Pump	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/40	Safety Relief Line Piping & Valve	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/40	Suction Line Piping & Valves including the Interconnect	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10	Suction Line Piping from the VCT & IRWST Downstream of and Including JDH10 AA052 and JDH10 AA022	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/40 BB001	Tank	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/40	Tank Drain Line Piping & Valve	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/40	Tank Level Measurement Piping	S	B	I	Yes	UFA	ASME Class 2[2]
JDH10/40	Tank Refill Line Piping Downstream of & including the Check Valve	S	B	I	Yes	UFA	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JDH10/40	Tank Refill Line Piping Upstream of the JDH10/40 AA012	NS	D	NSC	No	UFA	ANSI/ASME B31.1[6]
JDH10/40	Test Line Piping, Valves, & Flow Restrictor	S	B	I	Yes	UFA	ASME Class 2[2]
30JDH10 BR051	VCT Suction Line	NS	E	NSC	No	UFA	ANSI/ASME B31.1[6]
30JDH10 AA051	VCT Suction Line Isolation Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
JMT	**Combustible Gas Control System**						
JMT20	Convection Foils	S	N/A	I	Yes	UJA	ASME AG-1[14], ASME Section VIII[8]
JMT20	Hydrogen Mixing Damper	S	N/A	I	Yes	UJA	ASME AG-1[14]
JMT10	Passive Autocatalytic Recombiner	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25] RG 1.7[25]
JMT20	Rupture Foils	S	N/A	I	Yes	UJA	ASME AG-1[14], ASME Section VIII[8]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JMQ	**Severe Accident Heat Removal System**						
30JMQ40AA001 and 30JMQ41/42/43 AA001/002	Containment Isolation Valves (including penetrations and associated piping)	S	B	I	Yes	UJH	ASME Class 2[2]
30JMQ42 BR005/007	Passive Flooding line up to and including MOV (JMQ42 AA004/006)	S	B	I	Yes	UJA	ASME Class 2[2]
30JMQ41 BR004	Piping - Spray Header and Nozzles	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Located above safety-related piping and equipment RG 1.29[25]
30JMQ40/41/42/43	Piping and associated ~~in~~ valves in Safeguard Building (excluding piping from containment isolation valve to penetration)	NS-AQ~~NS~~	D	II~~NSC~~	~~No~~Yes	UJH	ANSI/ASME B31.1[6], RG 1.29[25]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JMQ41/43	Piping and associated valves inside Containment	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Located in close proximity to safety-related piping and equipment RG 1.29[25]
30JMQ42	Piping and associated valves inside Containment (except Passive Flooding Line)	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6]; Located in close proximity to safety-related piping and equipment RG 1.29[25]
30JMQ40 AC001	SAHRS Heat Exchanger (Shell 1)	NS-AQ	D	~~NSC~~II	~~No~~Yes	UJH	ASCE 43-05, ASME VIII[8], RG 1.29[25]
30JMQ40 AC004	SAHRS Heat Exchanger (Shell 2)	NS-AQ	D	~~NSC~~II	~~No~~Yes	UJH	ASCE 43-05, ASME VIII[8], RG 1.29[25]
30JMQ40 AP001	SAHRS Pump	NS-AQ	D	~~NSC~~II	~~No~~Yes	UJH	ASCE 43-05, Manufacturer Standards, RG 1.29[25]
JMB	**Core Melt Stabilization System**						
JMB40 AC	Cooling Structure	NS	N/A	NSC	No	UJA	
JMB20 AB001	Gate	NS	N/A	NSC	No	UJA	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JMB30	Melt Discharge Channel	NS-AQ	N/A	II	Yes	UJA	Helps support the structural integrity of reactor pit RG 1.29[25]
JMB30 BU001	Melt Discharge Channel - Refractory Layer	NS	N/A	NSC	No	UJA	
JMB20	Melt Plug – Sacrificial Concrete	NS	N/A	NSC	No	UJA	
JMB10	Reactor Cavity – Sacrificial Concrete	NS	N/A	NSC	No	UJA	
JMB10 BU001	Refractory Layer: Reactor Cavity, Melt Discharge Channel	NS	N/A	NSC	No	UJA	
JMB40	Spreading Area – Sacrificial Concrete	NS	N/A	NSC	No	UJA	
NUCLEAR FUEL SYSTEM							
N/A	Nuclear Fuel	S	N/A	I	Yes	UJA, UFA	
NSSS SUPPORT SYSTEMS							
FAK, FAL	**Fuel Pool Cooling & Purification System**						
FAL	Balance of FAL Piping	NS	D	NSC	No	UFA	ANSI/ASME B31.1[6]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30FAL12/15 AA002	Reactor Building Purification Containment Isolation Valves (Outer)	S	B	I	Yes	UFA	ASME Class 2[2]
30FAL12 AP001	Reactor Building Purification Pump	NS	D	NSC	No	UFA	Manufacturer Standards~~ASME VIII~~[8]
30FAL11 AP001	Reactor Building Skimming Pump	NS	D	NSC	No	UJA	Manufacturer Standards~~ASME VIII~~[8]
30FAL02 AP001	Spent Fuel Pool Makeup Pump	S	C	I	Yes	UFA	ASME Class 3[3]
FAL	Spent Fuel Pool Makeup Pump Piping	S	C	I	Yes	UFA	ASME Class 3[3]
30FAK31CL003, CL004, CL005, CL006	Spent Fuel Pool Wide Range Level Sensors	S	N/A	I	Yes	UFA	IEEE 323 IEEE 344
KBA, KBD	**Chemical & Volume Control System**						
30KBA20 AA104	3-Way Control Valve to KBB	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA20 AA001	3-Way Valve to KBE	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KBA20 AA002	3-Way Valve to KBG	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA35 AA101	3-Way Valve to Pressurizer Spray	S	C	I	Yes	UJA	ASME Class 3[3]
KBD	All System Piping to Check Valve KBD11 AA016	NS	E	NSC	No	UFA	ANSI/ASME B31.1[6]
30KBA14 AA107	Back-Pressure Control Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA34 AA101	Charging Header Flow Control Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA34 AA003	Charging Line Containment Isolation Check Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30KBA34 AA002	Charging Line Containment Isolation Valve	S	B	I	Yes	UFA	ASME Class 2[2]
30KBA34 AA012	Charging Line Isolation Valve	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA34 AA191	Charging Line Relief Valve	S	C	I	Yes	UJA	ASME Class 3[3]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KBA31/32 AA005	Charging Pump Minimum Flow Valves	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
KBA	Charging Pump Suction and Discharge Piping from KBA21 AA009 to Containment Isolation KBA34 AA002	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA31/32 AA191	Charging Pump Suction Relief Valves	NS-AQ	D	NSC	Yes	UFA	ASME VIII[8] RG 1.29[25]
30KBA31/32 AP001	Charging Pumps	NS-AQ	D	NSC	Yes	UFA	Manufacturer Standards RG 1.29[25]
30KBA31AC101	Charging pump motor cooler	S	C	I	Yes	UFA	ASME Class 3
30KBA31AC102	Charging pump seal cooler	S	C	I	Yes	UFA	ASME Class 3
30KBA31AC103	Charging pump oil cooler	S	C	I	Yes	UFA	ASME Class 3
30KBA32AC101	Charging pump motor cooler	S	C	I	Yes	UFA	ASME Class 3
30KBA32AC102	Charging pump seal cooler	S	C	I	Yes	UFA	ASME Class 3

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KBA32AC103	Charging pump oil cooler	S	C	I	Yes	UFA	ASME Class 3
30KBD11 AP001-003	Chemical Proportioning Pumps	NS	E	NSC	No	UFA	Manufacturer Standards
30KBA14 AA002/ 003	Containment Isolation Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30KBA25 BT001	Gas Separator	NS-AQ	D	NSC	Yes	UFA	ASME VIII[8] RG 1.29[25]
30KBA11/12 AA001	HP Cooler Inlet Valves	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA11/12 AA003	HP Cooler Outlet Valves	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA11/12 AC001	HP Coolers	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA11/12 AA102	HP Reducing Stations	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA25 AA101	Hydrogen Control Valve to Hydrogenation Station	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA25 AA006	Hydrogen Gas Isolation Valve to Hydrogenation Station	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KBA31 AA013	Isolation Valve from IRWST	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA20 AA601	Isolation Valve to KUA	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA14 AA009/ 011	Isolation Valves to KTA	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA14 AA191	Letdown Line Relief Valve	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA14 AA192	Letdown Line Relief Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA20 AA191	Letdown Line Relief Valve	NS-AQ	D	NSC	Yes	UKA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA25 AA191	Letdown Line Relief Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
KBA	Letdown Piping from Inside Containment Isolation Valve to Downstream of Outside Containment Isolation Valve KBA14 AA003	S	B	I	Yes	UJA, UFA	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
KBA	Letdown Piping from RCS to Downstream of Valve KBA10 AA002	S	A	I	Yes	UJA	ASME Class 1[1]
KBA	Letdown Piping from Valve KBA10 AA002 to Inside Containment Isolation Valve KBA14 AA002	S	C	I	Yes	UJA	ASME Class 3[3]
KBA	Letdown Piping from Valve KBA14 AA004 and Outside Containment Isolation Valve KBA14 AA003 to Valves KBA21 AA001 KBA21 AA009 and KBA25 AA017	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBD11 BB001	Lithium Hydroxide Injection Tank	NS	E	NSC	No	UFA	API 650[11]
30KBD11 BB002	Lithium Hydroxide Preparation Tank	NS	E	NSC	No	UFA	API 650[11]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
KBA	Low Pressure Letdown Piping in Fuel building from JNX to Downstream of Valve KBA14 AA004	S	C	I	Yes	UFA	ASME Class 3[3]
30KBA14 AA106	LP Reducing Station	S	C	I	Yes	UFA	ASME Class 3[3]
30KBA14 AA004	LP Reducing Station Isolation Valve	S	C	I	Yes	UFA	ASME Class 3[3]
30KBA31/32 BZ001	Mixing Elements	NS-AQ	D	NSC	Yes	UFA	ASME VIII[8] RG 1.29[25]
30KBA25 BZ001	Mixing Pipe	NS-AQ	D	NSC	Yes	UFA	ASME VIII[8] RG 1.29[25]
30KBA20 AA021	Nitrogen Supply Valve to VCT	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
KBD	Piping from Check Valve KBD11 AA016 to Charging Pump Suction Piping	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA35 AA002	Pressurizer Spray Check Valve	S	A	I	Yes	UJA	ASME Class 1[1]
30KBA35 AA001	Pressurizer Spray Isolation Valve	S	C	I	Yes	UJA	ASME Class 3[3]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KBA25 AA017	Prevent Dilution Valve	S	C	I	Yes	UFA	ASME Class 3[3]
30KBA21 AA001/ 009	Prevent Dilution Valves	S	C	I	Yes	UFA	ASME Class 3[3]
30KBA34 AA018-021	RC Pressure Boundary Check Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30KBA10 AA001/ 002	RC Pressure Boundary Valves	S	A	I	Yes	UJA	ASME Class 1[1]
30JEW01 AT001/002	RCP Seal Injection Filters	NS	D	NSC	No	UKA	ASME VIII[8]
30JEW01 AA101	RCP Seal Injection Flow Control Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30JEW11/21/31/41 AA111	RCP Seal Injection Flow Control Valves	S	C	I	Yes	UJA	ASME Class 3[3]
JEW	RCP Seal Injection from Check Valve JEW01 AA006 to RCPs	S	C	I	Yes	UJA	ASME Class 3[3]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JEW	RCP Seal Injection Piping from Charging Line to Outside Containment Isolation Valve JEW01 AA005	NS-AQ	D	NSC	Yes	UFA, UKA	ANSI/ASME B31.1[6] RG 1.29[25]
JEW	RCP Seal Injection Piping from Containment Isolation Valve to Inside Containment Check Valve JEW01 AA006	S	B	I	Yes	UJA, UFA	ASME Class 2[2]
30JEW50 AA001	RCP Seal Leak-off Containment Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30JEW50 AA002	RCP Seal Leak-off Containment Isolation Valve	S	B	I	Yes	UFA	ASME Class 2[2]
30JEW50 AT001	RCP Seal Leak-off Filter	NS	D	NSC	No	UKA	ASME VIII[8]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JEW	RCP Seal Leakoff Piping from Inside Containment Isolation Valve JEW50 AA001 to Outside Containment Isolation Valve JEW50 AA002	S	B	I	Yes	UJA, UFA	ASME Class 2[2]
JEW	RCP Seal Leakoff Piping from Outside Containment Isolation Valve to Charging Piping	NS-AQ	D	NSC	Yes	UFA, UKA	ANSI/ASME B31.1[6] RG 1.29[25]
JEW	RCP Seal Leakoff Piping from RCPs to Inside Containment Isolation Valve JEW50 AA001	S	C	I	Yes	UJA	ASME Class 3[3]
30JEW50 AA104	RCP Seal Leak-off Pressure Regulating Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30JEW50 AA191	RCP Seal Leak-off Relief Valve	S	C	I	Yes	UJA	ASME Class 3[3]
30JEW50 AA021	RCP Seal Leak-off to KTA	S	C	I	Yes	UJA	ASME Class 3[3]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KBA10 AC001	Regenerative Heat Exchanger	S	C	I	Yes	UJA	ASME Class 3[3]
30KBA34 AA007	Regenerative Heater 3-Way Bypass Valve	S	C	I	Yes	UJA	ASME Class 3[3]
30JEW01 AA006	Seal Injection Containment Isolation Check Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30JEW01 AA005	Seal Injection Containment Isolation Valve	S	B	I	Yes	UFA	ASME Class 2[2]
30KBA25 BB001	Stand Pipe	NS-AQ	D	NSC	Yes	UFA	ASME VIII[8] RG 1.29[25]
30KBA20 BB001	Volume Control Tank	NS-AQ	D	NSC	Yes	UFA	ASME VIII[8] RG 1.29[25]
30KBA21 AA191	Volume Control Tank Relief Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KBA25 BN001	Water Jet Pump	NS-AQ	D	NSC	Yes	UFA	Manufacturer Standards RG 1.29[25]
30KBA25 AA007	Water Jet Pump Inlet Isolation Valve	NS-AQ	D	NSC	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
FAA, FAB, FAE, FAF, FB, FC	**Fuel Handling System**						
SMF01	Auxiliary Crane	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992, ASME NOG-1 RG 1.29[25]
FCD30	Centralized Control Unit (Fuel Building)	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Must maintain structural integrity during earthquake RG 1.29[25]
FCB30	Centralized Control Unit (Reactor Building)	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Must maintain structural integrity during earthquake RG 1.29[25]
FCJ04	Conveyor Car and Drive	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCJ06	Emergency Manual Drive System for Conveyor Car	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
FCD07	FAs Guide System	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCJ01	Fuel Transfer Tube Facility (Except FCJ05)	NS-AQ	N/A	II	Yes	UJA, UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment and must maintain structural integrity RG 1.29[25]
FAA01	New Fuel Storage Racks	S	N/A	I	Yes	UFA	ANS 57.3-1983
FCD10	NFE (Entire Assembly)	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCB01	RM (Entire Assembly)	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
FCB02	RM Bridge	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCB05	RM FAIs Hoist	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCB04	RM FAs Hoist	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCB08	RM ISH	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCB07	RM Mast & Gripper (FAIs)	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
FCB06	RM Mast & Gripper (FAs)	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCB03	RM Trolley	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCD01	SFM (Entire Assembly)	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCD02	SFM Bridge	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCD04	SFM Hoist	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
FCD05	SFM Mast & Gripper	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCD06	SFM Tower & Rotation Device	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCD03	SFM Trolley	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCJ05	Fuel Transfer Tube - Tube and Blind Flange	S	N/A	I	Yes	UJA, UFA	ASME Class MC[23]
FCJ05	Fuel Transfer Tube - FB Gate Valve and Expansion Joints	S	C	I	Yes	UJA, UJB, UFA	ASME Class 3[3]
FAB02	Underwater Fuel Racks	S	N/A	I	Yes	UFA	ANS 57.2-1983
30FAB11 KB001	Transfer Pit Slot Gate	S	N/A	I	Yes	UFA	Manufacturer's standard

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30FAB11 KB002	Transfer Pit Swivel Gate	S	N/A	I	Yes	UFA	Manufacturer's standard
30FAB12 KB001	Loading Pit Slot Gate	S	N/A	I	Yes	UFA	Manufacturer's standard
30FAB12 KB002	Loading Pit Swivel Gate	S	N/A	I	Yes	UFA	Manufacturer's standard
FCJ08	Up-Ender and Track (Fuel Building)	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCJ07	Up-Ender and Track (Reactor Building)	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCJ03	Up-Ender Hoist (Fuel Building)	NS-AQ	N/A	II	Yes	UFA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
FCJ02	Up-Ender Hoist (Reactor Building)	NS-AQ	N/A	II	Yes	UJA	ANS 57.1-1992; Located in close proximity to safety-related equipment RG 1.29[25]
FCJ12	Spent Fuel Cask Transfer Facility Penetration Assembly (excluding the Upper Cover Hoist)	S	N/A	I	Yes	UFA	ANS 57.2-1983
	Penetration Upper Cover Hoist	NS-AQ	N/A	II	Yes	UFA	ANS 57.2-1983; ASME NOG-1-2004 RG 1.29[25]
FCJ10	Spent Fuel Cask Transfer Machine	S	N/A	I	Yes	UFA	ANS 57.2-1983
FCJ11	Biological Lid Handling Station	NS-AQ	N/A	II	Yes	UFA	ANS 57.2-1983 RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
31/32/33/34BRA 31/32/33/34BRD	Class 1E 480 V Motor Control Centers	S	N/A	I	Yes	UJK	
BRW	Class 1E 480 Vac to 24 Vdc Converters	S	N/A	I	Yes	UJK, UBP	
31/32/33/34BRU01	Class 1E UPS Inverters	S	N/A	I	Yes	UJK	
31/32/33/34BGA01 31/32/33/34BGA02	Class 1E Panelboards	S	N/A	I	Yes	UJK	
31/32/33/34BGT01 31/32/33/34BGT02	Class 1E 480 V to 208/120 V transformers	S	N/A	I	Yes	UJK	
31/32/33/34BLT01 31/32/33/34BLT02	Non-Class 1E 480 V to 208/120 V Transformers	NS-AQ	N/A	II	Yes	UJK	ASCE 43-05 RG 1.29[25]
31/32/33/34BLB01 31/32/33/34BLB02	Non-Class 1E Panelboards	NS-AQ	N/A	II	Yes	UJK	ASCE 43-05 RG 1.29[25]
BD, BM, BN, BF	**Emergency Power Supply System**						
31/32/33/34BMB	Class 1E 480 V Load Centers	S	N/A	I	Yes	UJK	
31/32/33/34BMD	Class 1E 480 V Load Centers	S	N/A	I	Yes	UQB	
31/34BMC	Class 1E 480 V Load Centers	S	N/A	I	Yes	1UJK, 4UJK	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
31/32/33/34BDD	Class 1E 6.9 kV Switchgear	S	N/A	I	Yes	UQB	
31/34BDC	Class 1E 6.9 kV Switchgear	S	N/A	I	Yes	1UJK, 4UJK	
31/32/33/34BMT04	Class 1E 6.9 kV to 480 V Transformers	S	N/A	I	Yes	UQB	
31/32/33/34BMT01	Class 1E 6.9 kV to 480 V transformers	S	N/A	I	Yes	UBP	
31/32/33/34BMT02	Class 1E 6.9 kV to 480 V transformers	S	N/A	I	Yes	UJK	
31/32/33/34BMT03	Class 1E 6.9 kV to 480 V transformers	S	N/A	I	Yes	UJK	
BRB, BRC, BRU03, BRV, BRX, BTB, BTM, BUD, BUE, BUV, BUX	**12 Hour Uninterruptible Power Supply System**						
31/32/33/34BUX	250 Vdc - 24 Vdc Converters (NI)	NS-AQ	N/A	NSC	No	UJK	RG 1.155[25]
31/32BUV	250 Vdc - 24 Vdc Converters (TI)	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32/33/34BUE	250 Vdc Switchboards (NI)	NS-AQ	N/A	NSC	No	UJK	RG 1.155[25]
31/32BUD	250 Vdc Switchboards (TI)	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
31/32/33/34BRX	480 Vac - 24 Vdc Converters (NI)	NS-AQ	N/A	NSC	No	UJK	RG 1.155[25]
31/32BRV	480 Vac - 24 Vdc Converters (TI)	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32/33/34BRB	480 Vac Motor Control Centers (NI)	NS-AQ	N/A	NSC	No	UJK	RG 1.155[25]
31/32BRC	480 Vac Motor Control Centers (TI)	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32BTB01	Batteries	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
30/31/32BTM01	Battery Chargers	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32BRU03	Inverter with Static Bypass Switches	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
BG, BJ, BL, BZL	**Lighting & Small Power System**						
BG, BJ, BL, BZL	Emergency Lighting	NS-AQ	N/A	II	Yes	All	RG 1.29[25]
BG, BJ, BL, BZL	Special Emergency Lighting	NS-AQ	N/A	II	Yes	All	ASCE 43-05 RG 1.29[25]
BG, BJ, BL, BZL	Normal Lighting	NS	N/A	NSC	No	All	
BG, BJ, BL, BZL	Escape Route Lighting	NS-AQ~~NS~~	N/A	~~NSC~~II	~~No~~Yes	All	NFPA 101, ASCE 43-05, RG 1.29[25], RG 1.189[25]
BG, BJ, BL, BZL	Security Lighting	NS	N/A	NSC	No	All	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
31/32BFX	Non-Class 1E 480 V Load Centers	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
[[31/32/33/34BFF/ BFG]]	Non-Class 1E 480 V Load Centers	NS	N/A	NSC	No	UQA]]	
31BHE01	Non-Class 1E 480 V Motor Control Center	NS	N/A	NSC	No	Site Specific	
32BHE01	Non-Class 1E 480 V Motor Control Center	NS	N/A	NSC	No	UKS	
34BHE01	Non-Class 1E 480 V Motor Control Center	NS	N/A	NSC	No	UKS	
31/32/33/34BHA01	Non-Class 1E 480 V Motor Control Centers	NS	N/A	NSC	No	UBA	
31/32/33/34BHD01/ 02	Non-Class 1E 480 V Motor Control Centers	NS	N/A	NSC	No	UJK	
31/32BHB01/02	Non-Class 1E 480 V Motor Control Centers	NS	N/A	NSC	No	UBA	
31/32BHC01	Non-Class 1E 480 V Motor Control Centers	NS	N/A	NSC	No	UBA	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
31/32BHX01	Non-Class 1E 480 V Motor Control Centers	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32BFT08	Non-Class 1E 6.9 kV - 480 V Transformers	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32BBH	Non-Class 1E 6.9 kV Switchgear	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
31/32BHZ01	Non-Class 1E 480 V Motor Control Centers	NS-AQ	N/A	NSC	No	UBA	RG 1.155[25]
33/34BBH	Non-Class 1E 6.9 kV Switchgear	NS	N/A	NSC	No	UBA	
[[31/32/33/34BFT06/07]]	Non-Class 1E 13.8 kV - 480 V Transformer	NS	N/A	NSC	No	UQA]]	
33/34BBG	Non-Class 1E 6.9 kV Switchgear	NS	N/A	NSC	No	Site Specific	
30BFT02	Non-Class 1E6.9 kV to 480 V Transformer	NS-AQ	N/A	II	Yes	UJK	ASCE 43-05, RG 1.29[25]
30BFT01	Non-Class 1E 480 V to 6.9 kV Transformer	NS-AQ	N/A	CS	No	USG	ASCE 43-05, RG 1.189[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
I&C SYSTEMS							
JR, CLE, CLF, CLG, CLH	**Protection System**						
30CLF35	Gateway, Division 2	NS-AQ	N/A	II	Yes	2UJK	Located in close proximity to safety-related equipment RG 1.29[25]
30CLG35	Gateway, Division 3	NS-AQ	N/A	II	Yes	3UJK	Located in close proximity to safety-related equipment RG 1.29[25]
JR	Service Unit	NS	N/A	NSC	No	UJK	
JR	Balance of Protection System	S	N/A	I	Yes	UJK	
DS, CLE6, CLF6, CLG6, CLH6	**Priority & Actuator Control System**						
CLE6, CLF6, CLG6, CLH6	Priority & Actuator Control System Cabinets	S	N/A	I	Yes	UJK	
CLE61/62/63, CLF61/62 CLG61/62, CLH61/62/63	Priority & Actuator Control System Cabinets	NS-AQ	N/A	II	Yes	UJK	Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
DR	**Safety Automation System**						
DR	Balance of DR System	S	N/A	I	Yes	UBP, UBZ, UJA, UJK, UFA	
CWY, JRE	**Safety Information & Control System**						
CWY	SICS QDS	NS-AQ	N/A	II	Yes	2UJK	RG 1.29[25]
CWY	Hardwire (Conventional) I&C for Safety Related I&C Functions	S	N/A	I	Yes	2UJK, 3UJK	
CWY	Hardwire (Conventional) I&C for Non-Safety Related I&C Functions	NS-AQ	N/A	II	Yes	2UJK	RG 1.29[25]
CWY	Type A, B, C Post-accident Monitoring Instrumentation	S	N/A	I	Yes	2UJK	
JKR,JKS, CLE14, CLF14, CLG14, CLH14	**Reactor Pressure Vessel Level Measurement System**						
JKR	Portion of Guide Tube Only	S	N/A	I	Yes	UJA	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
JKR	Reactor Pressure Vessel Measurement System	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
JKS, JKQ ,CNC, CNN, CLE12/15, CLF12/15, CLG12/15, CLH12/15	**Incore Instrumentation System**						
JKQ	Aeroball Measurement System Components and Associated Cabinets	NS-AQ	N/A	II	Yes	UJA	Components located inside and outside the reactor Vessel RG 1.29[25]
JKS	Core Outlet Temperature Thermocouples	S	N/A	I	Yes	UJA	
JKS	Reactor Pressure Vessel Dome Temperature Measurement Thermocouples	NS-AQ	N/A	II	Yes	UJA	Thermocouples are located inside the reactor vessel RG 1.29[25]
JKS	Self Powered Neutron Detectors	S	N/A	I	Yes	UJA	
JKS	Self Powered Neutron Detectors Test Instrumentation	NS-AQ	N/A	II	Yes	UJA	Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30CLE13	Excore Conditioning Cabinets Division 1	S	N/A	I	Yes	1UJK	
30CLF13	Excore Conditioning Cabinets Division 2	S	N/A	I	Yes	2UJK	
30CLG13	Excore Conditioning Cabinets Division 3	S	N/A	I	Yes	3UJK	
30CLH13	Excore Conditioning Cabinets Division 4	S	N/A	I	Yes	4UJK	
JKT	Non-Safety Portions of JKT System	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
CPF,CLE23, CLF23, CLG23, CLH23	**Boron Concentration Measurement System**						
30CLE23	Boron Concentration Measurement Conditioning Cabinet Division 1	S	N/A	I	Yes	1UJK	
30CLF23	Boron Concentration Measurement Conditioning Cabinet Division 2	S	N/A	I	Yes	2UJK	
30CLG23	Boron Concentration Measurement Conditioning Cabinet Division 3	S	N/A	I	Yes	3UJK	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
LBA30CR811 LBA30CR821 LBA30CR831 LBA30CR841	Main Steam Line Radiation Monitors Division 3	S	N/A	I	Yes	3UJE	
LBA40CR811 LBA40CR821 LBA40CR831 LBA40CR841	Main Steam Line Radiation Monitors Division 4	S	N/A	I	Yes	4UJE	
JYK	Balance of JYK System	NS	N/A	NSC	No	UJA, UFA, UJH, UJK, UKS, UKA	
JYK	Balance of JYK System	NS-AQ	N/A	NSC	No	UFA	RG 1.89[25]
CLE20	Radiation Monitoring Cabinet Division 1	S	N/A	I	Yes	1UJK	
CLF20	Radiation Monitoring Cabinet Division 2	S	N/A	I	Yes	2UJK	
CLG20	Radiation Monitoring Cabinet Division 3	S	N/A	I	Yes	3UJK	
CLH20	Radiation Monitoring Cabinet Division 4	S	N/A	I	Yes	4UJK	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
BUA	**Control Rod Drive Control System**						
BUA	Contactors only	S	N/A	I	Yes	1UJK, 4UJK	
BUA	Balance of Control Rod Drive Control System	NS-AQ	N/A	II	Yes	1UJK, 4UJK	RG 1.29[25]
CPE	**Seismic Monitoring System**	NS-AQ	N/A	I	Yes	Site Specific	Exception to Criteria based on the seismic monitoring required to be functional during and after a seismic event. RG 1.29[25]
CR	**Process Automation System**						
CR	Process Automation System	NS	N/A	NSC	No	UJK, UBP, UBA, UAA	
CR	Process Automation System (adjacent to Safety Related Equipment)	NS-AQ	N/A	II	Yes	UJK, UBP	Located in close proximity to safety-related equipment RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
CME, CMF, CMG, CMH	**Diverse Actuation System**						
CME, CMF, CMG, CMH	Diverse Actuation System (DAS - adjacent to Safety Related Equipment)	NS-AQ	N/A	II	Yes	UJK	Located in close proximity to safety-related equipment RG 1.29[25]
CME, CMF, CMG, CMH	Diverse Actuation System	NS-AQ	N/A	NSC	No	UJK	SECY-93-087[25]
CRU	**Process Information & Control System**	NS-AQ	N/A	II	Yes	2UJK, 3UJK	RG 1.29[25]
CYE	**Plant Fire Alarm System**	NS-AQ	N/A	NSC	No	All	NFPA RG 1.189[25]
JMU	**Hydrogen Monitoring System**						
JMU	Containment Isolation Valves and Associated Piping	S	B	I	Yes	UJA, 1UJH, 4UJH	ASME Class 2[2]
30JMU50/51 BZ001-004	Gas Samplers	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
30JMU10 CQ001-012	Hydrogen Sensors	NS-AQ	N/A	I	Yes	UJA	RG 1.7[25] RG 1.29[25]
30JMU20 CQ001-005	Hydrogen Sensors	NS-AQ	N/A	II	Yes	UFA	RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30JMU50/51 GH001	Local Control Unit	NS-AQ	N/A	II	Yes	1UJH, 4UJH	RG 1.29[25]
JMU	Piping inside Containment up to Process and Analysis Modules outside Containment (except Containment Isolation)	NS-AQ	D~~C~~	II	Yes	UJA, 1UJH, 4UJH	ANSI/ASME B31.1[6] ~~Class 3~~[3] RG 1.29[25]
30JMU50/51 BZ010	Process and Analysis Module	NS-AQ	N/A	II	Yes	1UJH, 4UJH	RG 1.29[25]
30JMU10 GH001	Signal Processing Unit	NS-AQ	N/A	I	Yes	1UJH	RG 1.7[25]
30JMU10 GH002	Signal Processing Unit	NS-AQ	N/A	I	Yes	4UJH	RG 1.7[25]
JS	**Reactor Control, Surveillance & Limitation System**	NS-AQ	N/A	II	Yes	UJA, UJH	RG 1.29[25]
CLE51/52, CLF51/52, CLG51/52, CLH51/52	**Signal Conditioning and Distribution System (SCDS)**						
30CLE51	SCDS Cabinets Division 1	S	N/A	I	Yes	1UJK	
30CLF51	SCDS Cabinets Division 2	S	N/A	I	Yes	2UJK	

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30CLG51	SCDS Cabinets Division 3	S	N/A	I	Yes	3UJK	
30CLH51	SCDS Cabinets Division 4	S	N/A	I	Yes	4UJK	
30CLE52	SCDS Cabinets Division 1	NS-AQ	N/A	I	Yes	1UJK	RG 1.29[25]
30CLF52	SCDS Cabinets Division 2	NS-AQ	N/A	I	Yes	2UJK	RG 1.29[25]
30CLG52	SCDS Cabinets Division 3	NS-AQ	N/A	I	Yes	3UJK	RG 1.29[25]
30CLH52	SCDS Cabinets Division 4	NS-AQ	N/A	I	Yes	4UJK	RG 1.29[25]
CLE11 ,CLF11, CLG11, CLH11	**Rod Position Measurement System (RPMS)**						
30CLE11	Rod Position Measurement Cabinets Division 1	S	N/A	I	Yes	1UJK	
30CLF11	Rod Position Measurement Cabinets Division 2	S	N/A	I	Yes	2UJK	
30CLG11	Rod Position Measurement Cabinets Division 3	S	N/A	I	Yes	3UJK	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30CLH11	Rod Position Measurement Cabinets Division 4	S	N/A	I	Yes	4UJK	
JYH	**Leak Detection Systems**						
JYH	Main Steam Local Humidity Detection System	NS-AQ	N/A	II	Yes	UJK, UJA	Located in close proximity to safety-related equipment. Used to support LBB analysis.RG 1.29[25]
JYH	Balance of JYH System	NS-AQ	N/A	II	Yes	UJA	Located in close proximity to safety-related equipment. Portions used to support RCPB leakage assumption. RG 1.29[25]
JYL	**Fatigue Monitoring System**	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
JYF	**Loose Parts Monitoring System**	NS	N/A	NSC	No	UJA, UJH	
JYG, JYM	**Vibration Monitoring System**	NS	N/A	NSC	No	UJA, UJH	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30GHW45 AA002	Seal Water Solenoid Valve	NS	E	NSC	No	UFA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7]
30GHW44 BB302	Seal Water Tank	NS	E	NSC	No	4UJH	ASME VIII[8]
GK	**Potable & Sanitary Water Systems**						
GK	Potable and Sanitary Water Systems	NS	N/A	NSC	No	UBA, UKA, UKE, UKS, UJK, UMA	ANSI/ASME B31.1[6], ASME VIII[8]
GK	GK System Piping and Associated Valves located in the UJH and UBP	NS	E	NSC	No	UJH, UBP	ANSI/ASME B31.1[6]
SGA, SGB	**Fire Water Distribution System**						
SGA	Fire Water Distribution System, Conventional Area (Not Providing Safe Shutdown Earthquake Protection)	NS-AQ	N/A	NSC	No	USG, UZT	NFPA 20, 2007 Ed. NFPA 22, 2003 Ed. NFPA 24, 2007 Ed. NFPA 25, 2002 Ed. NFPA 804, 2006 Ed. RG 1.189[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
SGA	Fire Water Distribution System, Conventional Area (Safe Shutdown Equipment Protection)	NS-AQ	N/A	~~H~~CS	~~Yes~~No	USG, UZT	NFPA 20, 2007 Ed. NFPA 22, 2003 Ed. NFPA 24, 2007 Ed. NFPA 25, 2002 Ed. NFPA 804, 2006 Ed. ANSI/ASME B31.1[6], ASCE/SEI Std. 43-05, ANSI/AWWA D100-2005; Required for safe shutdown earthquake protection RG 1.189[25]
SGB	Fire Water Distribution System, SGB Subsystem within UKS and UKA inside Nuclear Island	NS-AQ	N/A	NSC	No	UKS, UKA	NFPA 14, 2007 Ed. NFPA 25, 2002 Ed. NFPA 804, 2006 Ed. RG 1.189[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
SGB	Fire Water Distribution System, SGB Subsystem (Safe Shutdown Equipment Protection)	NS-AQ	N/A	II	Yes	UBP, UFA, UJA, UJH, UJK, URB, UJB	NFPA 14, 2007 Ed. NFPA 25, 2002 Ed. NFPA 804, 2006 Ed. ANSI/ASME B31.1[6]; Required for safe shutdown earthquake protection RG 1.29[25] RG 1.189[25]
SGB	Fire water distribution system, SGB Subsystem Containment Isolation Valves	S	B	I	Yes	UFA, UJA, UJB	ASME Class 2[2]
SGC	**Spray Deluge Systems**	NS-AQ	N/A	NSC	No	UJA, UBP	NFPA 13, 2007 Ed. NFPA 15, 2007 Ed. NFPA 25, 2002 Ed. NPFA 804, 2006 Ed. RG 1.189[25]
SGE	**Sprinkler Systems**	NS-AQ	N/A	NSC	No	UBP	NFPA 13, 2007 Ed. NFPA 25, 2002 Ed. NFPA 804, 2006 Ed. RG 1.189[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
SGJ	**Gaseous Fire Extinguishing Systems**	NS-AQ	N/A	NSC	No	2UJH	NFPA 2001, 2004 Ed. NFPA 804, 2006 Ed. RG 1.189[25]
SC	**Compressed Air System**						
SCB	Compressed Air Distribution System	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6]
SCB	Compressed Air Distribution System Containment Isolation Valves	S	B	I	Yes	UFA, UJA	ASME Class 2[2]; During DBA, the motor operated containment isolation valves are closed by signals from the Protection System
SCA	Compressed Air Generation System	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6], ASME VIII[8]
SCB	Piping components of the Compressed Air Distribution System Located in UJA, UFA, UBP, UJH, UJK, UJE, UQB	NS	E	NSC	No	UJA, UFA, UBP, UJH, UJK, UQB, UJE	ANSI/ASME B31.1[6]

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KTA41, KTB40, KTC40, KTD40	Piping & Valves Inside UKA	NS	D	NSC	No	UKA	ANSI/ASME B31.1[6]
KTD60	Piping & Valves Inside UKE	NS	E	NSC	No	UKE	ANSI/ASME B31.1[6]
KTC50/51/52/53/54	Piping & Valves Inside UKS	NS	D	NSC	No	UKS	ANSI/ASME B31.1[6]
KT	Piping and Valves Connected to Radwaste	NS-AQ	D	RS	No	UKA	ASME B31.1[6] RG 1.143[25], RW-IIa
~~30KTA10 AC001~~	~~Primary Effluents Heat Exchanger~~	~~NS~~	~~D~~	~~NSC~~	~~No~~	~~UJA~~	~~ASME VIII[8]~~
30KTA10AC001	NIDVS RCDT cooler	S	C	I	Yes	UJA	Class 3
KTA10	NIDVS RCDT cooler supply and return piping to the nearest valves	NS-AQ	D	II	Yes	UJA	ASME B31.1
30KTA41 BB001	Primary Leakage Measurement Bottle	NS	D	NSC	No	UJA	ASME VIII[8]
30KTB20 AP001	Process Drain Mobile Pumps - 1UJH	NS	D	NSC	No	1UJH	Manufacturer Standards
30KTB20 AP004	Process Drain Mobile Pumps - 4UJH	NS	D	NSC	No	4UJH	Manufacturer Standards

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KTD10 CL002	Sump Level Sensors	S	N/A	I	Yes	UJB	Manufacturer Standards, IEEE 323, IEEE 344
KU	**Nuclear Sampling System**						
30KUA70 BB001	Active Sample Storage Tank	NS	D	NSC	No	UKA	ASME VIII[8]
KUA66	Argon/Nitrogen Bottles	NS	E	NSC	No	UKA	Manufacturer Standards
KUA65/66	Argon/Nitrogen Piping	NS	E	NSC	No	UKA	ANSI/ASME B31.1[6] ~~Manufacturer Standards~~
30KUA10 AC002	Boron Sample Heat Exchanger	NS-AQ	D	NSC	No	UFA	ASME VIII[8] RG 1.21[25] NUREG-0737[25]
KUA, KUB	Chilled Water Piping Distribution (QN)	NS	E	NSC	No	UKA	ANSI/ASME B31.1[6] ~~Manufacturer Standards~~
30KUA50 AT001	Commissioning Filter	NS	E	NSC	No	UKA	Manufacturer Standards
30KUA10/20/30/40 AT001	Commissioning Filters	NS	E	NSC	No	UFA	Manufacturer Standards
30KUA69 AT001-004	Commissioning Filters	NS	E	NSC	No	UJH	Manufacturer Standards

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KUA80 AN001	Mobile Pump	NS	D	NSC	No	UKA	Manufacturer Standards
30KUA67 AC001-005	Multiple Heat Exchangers	NS	D	NSC	No	UKA	ASME VIII[8]
30KUA69 AC001-004	Multiple Heat Exchangers	NS	D	NSC	No	UKA	ASME VIII[8]
KUF	Piping	NS	D	NSC	No	UKA	ANSI/ASME B31.1[6]
KUA	Piping & Valves (Upstream Outer Containment Isolation Valve)	S	B	I	Yes	UJA, UFA	ASME Class 2[2]
KUA	Piping & Valves (from Boron Grab Sample)	NS-AQ	D	NSC	No	UFA, UKA	ANSI/ASME B31.1[6] RG 1.21[25] NUREG-0737[25]
KUB	Piping (from Outer Containment Isolation Valve)	NS	D	NSC	No	UFA, UKA	ANSI/ASME B31.1[6]
KUB	Piping (Upstream Outer Containment Isolation Valve)	S	B	I	Yes	UJA, UFA	ASME Class 2[2]
~~30KUA10/20/30 AC001~~	~~Primary Heat Exchangers~~	~~NS-AQ~~	~~D~~	~~NSC~~	~~No~~	~~UFA~~	~~ASME VIII[8]~~
30KUA10AC001	NSS sample cooler	S	C	I	Yes	UFA	ASME Class 3

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
KUL	**Severe Accident Sampling System**						
30KUL53 BZ001	Backfeeding Module	NS-AQ	D	NSC	No	4UJH	Manufacturer Standards~~ASME VIII~~[8] RG 1.21[25] NUREG-0737[25]
30KUL51 AA001	Containment Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30KUL52 AA002	Containment Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30KUL51/52 AA003	Containment Isolation Valves	S	B	I	Yes	4UJH	ASME Class 2[2]
30KUL54 BZ001	Gas Sampling Module	NS-AQ	D	NSC	No	4UJH	Manufacturer Standards~~ASME VIII~~[8] RG 1.21[25] NUREG-0737[25]
KUL	Piping and Valves in 4UJH	NS-AQ	D	NSC	No	4UJH	ANSI/ASME B31.1[6] RG 1.21[25] NUREG-0737[25]
KUL	Piping and Valves in UFA	NS-AQ	D	NSC	No	UFA	ANSI/ASME B31.1[6] RG 1.21[25] NUREG-0737[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
KUL	Piping and Valves in UJA	NS-AQ	D	NSC	No	UJA	ANSI/ASME B31.1[6] RG 1.21[25] NUREG-0737[25]
30KUL51/52 BZ001	Pool Samplers	NS-AQ	D	NSC	No	UJA	Manufacturer Standards~~ASME VIII~~[8] RG 1.21[25] NUREG-0737[25]
30KUL58 AP001	Proportioning Pump	NS-AQ	D	NSC	No	UFA	Manufacturer Standards RG 1.21[25] NUREG-0737[25]
30KUL60 BZ001	Sample Box	NS-AQ	N/A~~D~~	NSC	No	UFA	Manufacturer Standards~~ASME VIII~~[8] RG 1.21[25] NUREG-0737[25]
30KUL55 BZ001	Scrubbing Liquid Sampling Module	NS-AQ	D	NSC	No	4UJH	Manufacturer Standards~~ASME VIII~~[8] RG 1.21[25] NUREG-0737[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KUL58 BB001	Sodium Hydroxide Tank	NS-AQ	D	NSC	No	UFA	API 620[10] RG 1.21[25] NUREG-0737[25]
30KUL56 BZ001	Sump Sampling Module	NS-AQ	D	NSC	No	4UJH	Manufacturer Standards~~ASME VIII~~[8] RG 1.21[25] NUREG-0737[25]
XJA, XKA, XJG, XJN XJQ, XJR, XJV, XJX (10/20/30/40), CXN (10/11/20/21/30/31/40/41)	**Emergency Diesel Generator Set**						
30XKA10/20/30/40 AG001	AC Synchronous Generator	S	N/A	I	Yes	UBP	IEEE 387; NEMA MG 1-2003; IEEE 112
~~30XJX10/20/30/40~~	~~Air Start System from Receiver Inlet Check Valves to Engine~~	~~S~~	~~N/A~~	~~I~~	~~Yes~~	~~UBP~~	~~ASME Class 3~~[3]
~~30XJX10/20/30/40~~	~~Air Start System on Engine~~	~~S~~	~~N/A~~	~~I~~	~~Yes~~	~~UBP~~	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
~~30XJG10/20/30/40~~	~~Jacket Water Standby Heater Circuit~~	~~NS-AQ~~	~~N/A~~	~~H~~	~~Yes~~	~~UBP~~	~~ANSI/ASME B31.1[6]~~
~~30XJV10/20/30/40~~	~~Lube Oil Keepwarm/ Prelube Circuit~~	~~NS-AQ~~	~~N/A~~	~~H~~	~~Yes~~	~~UBP~~	~~ANSI/ASME B31.1[6]~~
~~30XJV10/20/30/40~~	~~Lube Oil System~~	~~S~~	~~N/A~~	~~I~~	~~Yes~~	~~UBP~~	~~ASME Class 3[3]~~
~~30XJA10/20/30/40 AN100A/B~~	~~Turbochargers~~	~~S~~	~~N/A~~	~~I~~	~~Yes~~	~~UBP~~	
XJA, XKA, XJG, XJN, XJQ, XJR, XJR, XJX (50/80), CXN (50/51/80/81)	**Station Blackout Diesel Generator Set**						
30XKA50/80 AG001	AC Synchronous Generator	NS-AQ	N/A	NSC	No	UBA	IEEE 387, NEMA MG 1-2003, IEEE 112 RG 1.155[25]
~~30XJR50/80~~	~~Air Exhaust System~~	~~NS-AQ~~	~~N/A~~	~~NSC~~	~~No~~	~~UBA~~	~~ANSI/ASME B31.1[6]~~
30CXN50/80	Control Panels	NS-AQ	N/A	NSC	No	UBA	IEEE 420 RG 1.155[25]
~~30XJG50/80~~	~~Cooling Water System~~	~~NS-AQ~~	~~N/A~~	~~NSC~~	~~No~~	~~UBA~~	~~ANSI/ASME B31.1[6]~~

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30XJA50/80 AV100	Diesel Engine ~~(Excluding Engine Driven Cooling, Lubrication, and Fuel Pumps)~~	NS-AQ	N/A	NSC	No	UBA	IEEE 387, Manufacturer Standards RG 1.155[25]
30XJG50/80	Engine Cooling System Pressure Retaining Components	NS-AQ	D	NSC	No	UBA	ASME VIII8, ANSI/ ASME B31.1[6], Manufacturer Standards, API 650 (11), RG 1.155[25]
30XJN50/80	Fuel Oil System Pressure Retaining Components	NS-AQ	D	NSC	No	UBA	ASME VIII8, ANSI/ ASME B31.1[6], API 650 (11), Manufacturer Standards, RG 1.155[25]
30XJQ50/80	Combustion Air System Pressure Retaining Components	NS-AQ	D	NSC	No	UBA	ANSI/ASME B31.1[6], Manufacturer Standards, RG 1.155[25]
30XJR50/80	Exhaust System Pressure Retaining Components	NS-AQ	D	NSC	No	UBA	ANSI/ASME B31.1[6], Manufacturer Standards, RG 1.155[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
~~30XJA50/80 AN100A/B~~	~~Turbochargers~~	~~NS-AQ~~	~~N/A~~	~~NSC~~	~~No~~	~~UBA~~	
XKA, XJA (60)	**Extended Loss of AC Power Diesel Generator**						
30XKA60 AG100	AC Synchronous Generator	NS-AQ	N/A	CS	No	USG	NEMA MG 1-2003, IEEE 112, ASCE 43-05, RG 1.189[25]
30XJA60 AV100	Diesel Engine (Including Auxiliaries)	NS-AQ	N/A	CS	No	USG	ASCE 43-05, RG 1.189[25]
KPC	**Solid Waste System**						
KPC	All Other Equipment	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC20 BB001	Concentrate Buffer Tank	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC20 AP001	Concentrate Recirculation Pump	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC50 AP001	Condensate Collection Pump	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC50 BB001	Condensate Collection Tank	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC30/40/50 BB001	Drum Drying Stations	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC60 AP001	High Pressure Cleaning Device	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KPC10 BB001	Resin Proportioning Tank	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC50 BB002	Scrubber Tank	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPC60 BZ001	Vacuum Unit	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
KPK, KPF	**Liquid Waste Storage & Processing System**						
KPF, KPK	All Pumps (excluding 30KPK26/27 AP001)	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
KPF, KPK	All Tanks (excluding 30KPK21/22 BB001)	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPK21/22 BB001	Monitoring Tanks	NS-AQ	D	CS	No	UKS	RG 1.143[25], RW-IIc
30KPK26/27 AP001	Recirculation and Discharge Pumps	NS-AQ	D	CS	No	UKS	RG 1.143[25], RW-IIc
30KPK41/42/43/44 AM001	Chemical Tank Agitators	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPK31/32/33 AM001	Concentrate Tank Agitators	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPF51 AT001	Decanter with Filling Station (Centrifuge Plant)	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPF11 AC002	Evaporator	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPF11 AT001	Evaporator Column	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KPF52 AT001	Separator (Centrifuge Plant)	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPF53 AM001	Sludge Tank Agitator	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPK11/12/13/14/ 15 AM001	Storage Tank Agitators	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
30KPF11 AN001	Vapor Compressor	NS-AQ	D	RS	No	UKS	RG 1.143[25], RW-IIa
KPF	Vendor Supplied Demineralizer System	NS-AQ	N/A	RS	No	UKS	RG 1.143[25], RW-IIa
KPL	**Gaseous Waste Processing System**						
30KPL30 BB001	Condensate Collecting Tank	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL84 BR004/005	Containment Isolation Piping	S	B	I	Yes	UFA, UJA	ASME Class 2[2]
30KPL85 BR006/007	Containment Isolation Piping	S	B	I	Yes	UFA, UJA	ASME Class 2[2]
30KPL84 AA002/003	Containment Isolation Valves	S	B	I	Yes	UFA, UJA	ASME Class 2[2]
30KPL85 AA003/004	Containment Isolation Valves	S	B	I	Yes	UFA, UJA	ASME Class 2[2]
30KPL85 AA202	Containment Penetration Test Connection Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KPL50 AT001-003	Delay Beds	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL11 AC001	Gas Cooler	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL01 AC001	Gas Drier	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL70 AT001	Gas Filter	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL40 AT001	Gel Drier	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL05 AN003	Measuring Gas Compressor	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL05/06 AN001/ 002	Measuring Gas Compressors	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL05/06 AC001	Measuring Gas Driers	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL30 AC001	Pre-drier	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL11 AT001	Recombiner	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
KPL	Remaining Piping	NS-AQ	D	RS	No	UJA, UJH, UFA, UKA	RG 1.143[25], RW-IIa
KPL	Remaining Valves	NS-AQ	D	RS	No	UJA, UJH, UFA, UKA	RG 1.143[25], RW-IIa
30KPL21/22 AC001	Sealing Liquid Coolers	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa
30KPL21/22 BB001	Sealing Liquid Tanks	NS-AQ	D	RS	No	UKA	RG 1.143[25], RW-IIa

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KPL21/22 AN001	Waste Gas Compressors	NS-AQ	D	RS	No	UKA	RG 1.143[25]; RW-IIa
KLK	**Sampling Activity Monitoring Systems**						
30KLK70/90 AN	Compressor Fan Units KLK70 AN005, KLK70 AN006, KLK90 AN003, and KLK90 AN004	NS	E	NSC	No	UKA	ANSI/ASME B31.1[6]
KLK	KLK System piping components used to support the Leak Detection System (30KLK05)	NS-AQ	D	I	Yes	UJA	ANSI/ASME B31.~~1~~[6] RG 1.45[25]
30KLK10/12/20/37 BR001/002 30KLK12 AA001/002 30KLK20/37 AH001/002	KLK System piping components that physically interface with safety related HVAC ducts	NS-AQ	D	II	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
KLK	Remainder of KLK System Piping Components	NS	E	NSC	No	UFA, UJA, UJK, UKA, UKE, UKS	ANSI/ASME B31.1[6]
30KLK65/66 CR001/002	Radioactivity Monitors	S	N/A	I	Yes	UJK	

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLK05 CR001/ 031/071/561	Radioactivity Monitors Used to Support the Leak Detection System	NS-AQ	N/A	I	Yes	UJA	RG 1.45[25]
30KLK13/~~21/~~37/38 CR001/002 30KLK95CR001/002	Radioactivity monitors that physically interface with safety related HVAC ducts and vent stack	NS-AQ	N/A	II	Yes	UFA UKH	RG 1.29[25]
30KLK21 CR001/002	Radioactive Monitors for the Annulus Ventilation System	NS-AQ	N/A	I	Yes	UFA	RG 1.97[25]
KLK	Remainder of KLK System Radioactivity Monitors	NS	N/A	NSC	No	UFA, UJA, UJK, UKA, UKE, UKS	
POWER CONVERSION SYSTEMS							
LB, MAN	**Main Steam System**						
30LBA13/23/33/43 BP701	Flow Orifices	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]
30LBA10/20/30/40 AA342-344	Flow Transmitter Isolation Valves	S	B	I	Yes	UJA	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30LBA10/20/30/40 AA441	Main Steam Isolation Bypass Drain Valves - 1	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA10/20/30/40 AA442	Main Steam Isolation Bypass Drain Valves - 2	S	C	I	Yes	UJE	ASME Class 3[3]
30LBA10/20/30/40 AA444	Main Steam Isolation Bypass Drain Valves - 3	S	C	I	Yes	UJE	ASME Class 3[3]
30LBA14/24/34/44 CG101	Main Steam Isolation Bypass Shutoff Valve 2 Position Sensors	NS-AQ	N/A	II	Yes	UJE	RG 1.29[25]
30LBA10/20/30/40 AA002	Main Steam Isolation Valves	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA10/20/30/40 BR442/443/444	Main Steam Piping	S	C	I	Yes	UJE	ASME Class 3[3]
30LBA10/20/30/40 BR445	Main Steam Piping	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]
30LBA11/21/31/41 BR441	Main Steam Piping	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]
30LBA12/22/32/42 BR441	Main Steam Piping	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30LBA13/23/33/43 BR301	Main Steam Piping	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]
30LBA13/23/33/43 BR441/442	Main Steam Piping	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]
30LBA14/24/34/44 BR002	Main Steam Piping	S	C	I	Yes	UJE	ASME Class 3[3]
30LBA13/23/33/43 CG807-809	Main Steam Relief Control Valve Position Sensors	S	N/A	I	Yes	UJE	
30LBA13/23/33/43 AA101	Main Steam Relief Control Valves	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA13/23/33/43 AA001	Main Steam Relief Isolation Valves	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA11/21/31/41 CG191	Main Steam Safety Valve Position Sensors	S	N/A	I	Yes	UJE	
30LBA12/22/32/42 CG191	Main Steam Safety Valve Position Sensors	S	N/A	I	Yes	UJE	
30LBA11/21/31/41 AA191	Main Steam Safety Valves	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA12/22/32/42 AA191	Main Steam Safety Valves	S	B	I	Yes	UJE	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30LBA10/20/30/40 AA311/321/331/341	Pressure Transmitter Isolation Valves	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA13/23/33/43 AA301	Pressure Transmitter Isolation Valves	NS-AQ	D	II	Yes	UJE	ANSI/ASME B31.1[6] RG 1.29[25]
30LBA10/20/30/40 CP401	Pressure Transmitters	NS-AQ	N/A	II	Yes	UJE	RG 1.29[25]
30LBA13/23/33/43 CP401	Pressure Transmitters	NS-AQ	N/A	II	Yes	UJE	RG 1.29[25]
30LBA10/20/30/40 CP811/821/831/841	Pressure Transmitters - Reactor Safety	S	N/A	I	Yes	UJE	
30LBA10/20/30/40 CR811/821/831/841	Radiation Monitors - Reactor Safety	S	N/A	I	Yes	UJE	
30LBA13/23/33/43 BS001	Silencers	S	C	I	Yes	UZT (Roof of 1UJE, 4UJE)	ASME Class 3[3]
30LBA10/20/30/40 CT401	Temperature Sensors - Acceptance Testing - Thermowell Only	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA10/20/30/40 CT002	Temperature Sensors - Binary Measurement - Thermowell Only	S	B	I	Yes	UJE	ASME Class 2[2]
30LBA10/20/30/40 AA501/502	Vent Isolation Valves	S	B	I	Yes	UJA	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30MAN11/13/21/23/31/33 AA051	Turbine Bypass Valves	NS	E	NSC	No	UMA	ANSI/ASME B31.1[6]
LBA	Main Steam Piping 30LBA/10/20/30/40 BR001/002 and Other Piping Directly Connected within UJA, UJE, and UJH	S	B	I	Yes	UJA, UJE, UJH	ASME Class 2 [2]
LBA	Balance of LBA Piping within UJA, UJE, and UJH (Miscellaneous Vents and Drains, etc.)	NS-AQ	D	II	Yes	UJA, UJE, UJH	ANSI/ASME B31.1[6] RG 1.29[25]
LB	Balance of LB System	NS	N/A	NSC	No	UMA, UMY	ANSI/ASME B31.1[6]
MAA, MAB, MAC	**Main Turbine Generator**	NS	N/A	NSC	No	UMA	
LCQ	**Steam Generator Blowdown System**						
LCQ	All LCQ Piping and Valves in 2UJE Downstream of Outer Containment Isolation Valve	NS-AQ	D	CS	No~~Yes~~	2UJE	ANSI/ASME B31.3[9], ANSI/ASME B16.34[7], RG 1.143[25], RW-IIc

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
LCQ	All LCQ Piping and Valves in 4UJH Downstream of Outer Containment Isolation Valve	NS-AQ	D	II	Yes	4UJH	ANSI/ASME B31.3[9], ANSI/ASME B16.34[7], ~~RG 1.143;~~ Safety-Related piping in close proximity RG 1.29[25]
30LCQ51 AC001/ 002	First Stage Blowdown Coolers	S	B	I	Yes	UJA	ASME Class 2[2]
30LCQ51 AA002	Inner Containment Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30LCQ52 AA001	Inner Containment Isolation Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30LCQ10 AA012/ 013	SG 1 & 2 Transfer Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30LCQ30 AA012/ 013	SG 3 & 4 Transfer Valves	S	B	I	Yes	UJA	ASME Class 2[2]
30LCQ51 AA003	Outer Containment Isolation Valve	S	B	I	Yes	~~3~~4UJH	ASME Class 2[2]
30LCQ52 AA002	Outer Containment 1st Isolation Valve	S	B	I	Yes	~~3~~2UJE	ASME Class 2[2]
30LCQ52AA005	Outer Containment 2nd Isolation Valve	S	B	I	Yes	2UJE	ASME Class 2[2]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
LAB	Feedwater Piping From MFWIV to SG Nozzle	S	B	I	Yes	UJE, UJB, UJA	ASME Class 2[2]
30LAB60/70/80/90 GC701-703	Full Load Control Valve Position Sensors	NS-AQ	N/A	II	Yes	UJE	RG 1.29[25]
30LAB60/70/80/90 AA101	Full Load Control Valves	S	C	I	Yes	UJE	ASME Class 3[3]
30LAB60/70/80/90 AA001	Full Load Isolation Valves	S	C	I	Yes	UJE	ASME Class 3[3]
30LAB64/74/84/94 CG701-703	Low Load Control Valve Position Sensors	NS-AQ	N/A	II	Yes	UJE	RG 1.29[25]
30LAB64/74/84/94 AA101	Low Load Control Valves	S	C	I	Yes	UJE	ASME Class 3[3]
30LAB64/74/84/94 AA001	Low Load Isolation Valves	S	C	I	Yes	UJE	ASME Class 3[3]
30LAB60/70/80/90 AA002	Main Isolation Valves	S	B	I	Yes	UJE	ASME Class 2[2]
30LAB60/70/80/90 CP407	Pressure Transmitter Downstream of Flow Meters	NS	N/A	NSC	No	UJE	
30LAB60/70/80/90 AA307	Pressure Transmitter Isolation Valves	S	C	I	Yes	UJE	ASME Class 3[3]

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30LAB60/70/80/90 CT708	Temperature Sensor Downstream of Flow Meters	S	N/A	I	Yes	UJE	
30LAB60/70/80/90 CT762	Temperature Sensors Downstream of FL/ LL Junctions	S	N/A	I	Yes	UJE	
30LAB60/70/80/90 CT763	Temperature Sensors Downstream of FL/ LL Junctions	S	N/A	I	Yes	UJE	
30LAB60/70/80/90 AA501	Vent Valves Downstream of FLCVs	S	C	I	Yes	UJE	ASME Class 3[3]
30LAB64/74/84/94 CG704-706	Very Low Load Control Valve Position Sensors	NS-AQ	N/A	II	Yes	UJE	RG 1.29[25]
30LAB64/74/84/94 AA102	Very Low Load Control Valves	S	C	I	Yes	UJE	ASME Class 3[3]
MAG	**Main Condenser**	NS	N/A	NSC	No	UMA	
LC, LD	**Condensate System**						
LC	Balance of Condensate Piping Inside Containment	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
LC	Balance of Condensate Piping, Excluding Condensate Polishing	NS	E	NSC	No	UMY, UMA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7]~~, ASME VIII[8]~~
30LCA90 AA403/ 408	Condensate Drain Second Isolation Valves	NS	E	NSC	No	2UJE	ANSI/ASME B31.1[6]
30LCA90 AA406/ 410	Condensate Drain Second Isolation Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30JMK10 BQ304/305	Condensate Line Containment Penetrations	S	B	I	Yes	UJB	ASME Class 2[2]
LC	Condensate Piping Associated With Containment Penetrations	S	B	I	Yes	UJA	ASME Class 2[2]
LC	Condensate Piping From 2UJE to Deaerator	NS	E	NSC	No	UMY, UMA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7]~~, ASME VIII[8]~~

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
LD	Condensate Polishing	NS	E	NSC	No	UMA	ANSI/ASME B31.1[6], ANSI/ASME B16.34[7], ASME VIII[8]
30LCA90 AA511	Condensate Vent Isolation Valve	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA503/ 508	Condensate Vent Isolation Valves	NS	E	NSC	No	2UJE	ANSI/ASME B31.1[6]
30LCA90 AA009	First Stage Blowdown Cooler Bypass Valve	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA015-017	First Stage Blowdown Cooler Bypass Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA030/ 031	First Stage Blowdown Cooler Bypass Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA401/ 402	First Stage Blowdown Cooler Drain Isolation Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA501/ 502	First Stage Blowdown Cooler Vent Isolation Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30LCA90 CG004	Inside Containment Isolation Valve Position Sensor	S	N/A	I	Yes	UJA	
LC	Inside Containment Relief Valve Discharge Piping	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA305	Leak Test Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30LCA90 AA306/ 307	Leak Test Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA010	Outbound Condensate Check Valve	NS	E	NSC	No	UMA	ANSI/ASME B31.1[6]
30LCA90 AA007	Outbound Condensate Isolation Valve	NS	E	NSC	No	2UJE	ANSI/ASME B31.1[6]
LC	Outbound Condensate Piping in 2UJE	NS	E	NSC	No	2UJE	ANSI/ASME B31.1[6]
30LCA90 AA101	Outbound Condensate Temperature Control Valve	NS	E	NSC	No	UMA	ANSI/ASME B31.1[6]

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30LCA90 AA005	Outbound Containment Isolation Valve - Inside Containment	S	B	I	Yes	UJA	ASME Class 2[2]
30LCA90 AA006	Outbound Containment Isolation Valve - 1st Outside Containment	S	B	I	Yes	2UJE	ASME Class 2[2]
30LCA90 AA021	Outbound Containment Isolation Valve - 2nd Outside Containment	S	B	I	Yes	2UJE	ASME Class 2[2]
30LCA90 AA195	Pressure Relief Valve	S	B	I	Yes	UJA	ASME Class 2[2]
30LCA90 AA182/ 184/186/188/191	Pressure Relief Valves	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] ~~VIII~~[8] RG 1.29[25]
30LCA90 AA310	Pressure Transmitter Isolation Valve	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 AA320/ 330	Pressure Transmitter Isolation Valve	NS-AQ	D	II	Yes	UJA	ANSI/ASME B31.1[6] RG 1.29[25]
30LCA90 CP002/ 402/501	Pressure Transmitters	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30LCA90 CT001/002	Temperature Transmitters	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
30LCA90 CT401-403	Temperature Transmitters	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
QU	**Secondary Sampling System**						
QUC	Balance of QUC System	NS	N/A	NSC	No	UFA, UKA	ANSI/ASME B31.1[6]
QUS	Circulating Water Sampling System	NS	N/A	NSC	No	UQA	ANSI/ASME B31.1[6]
QUE	Condensate Sampling Systems	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6]
QUP	Cooling System for Secondary Samples	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6]
QUG	Demineralized Water Supply Sampling System	NS	N/A	NSC	No	UBA	ANSI/ASME B31.1[6]
QUA	Feedwater Sampling System	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6]
QUB	Main Steam Sampling System	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6]
QUD	Sampling System for Auxiliary Steam and Feedwater	NS	N/A	NSC	No	UMA	ANSI/ASME B31.1[6]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
GDA	Balance of GDA Piping and Valves	NS-AQ	D	RS~~NSC~~	No	UKA	ANSI/ASME B31.3[9], RG 1.143[25], RW-IIa
30GDA20 AT010	Buffer Tank for Pneumatic Valves	NS	E	NSC	No	UKA	ASME VIII[8]
30GDA10 AT010	Cartridge Filter	NS-AQ	D	~~C~~RS	No	UKA	ASME VIII[8], RG 1.143[25], RW-IIa~~e~~
30GDA10 AT001	Cation Exchanger	NS-AQ	D	~~C~~RS	No	UKA	ASME VIII[8], RG 1.143[25], RW-IIa~~e~~
30GDA13 AT012	Drain Buffer Tank	NS-AQ	D	~~C~~RS	No	UKA	ASME VIII[8], RG 1.143[25], RW-IIa~~e~~
30GDA10 AT002	Mixed Bed Exchanger	NS-AQ	D	~~C~~RS	No	UKA	ASME VIII[8], RG 1.143[25], RW-IIa~~e~~
30GDA10 AT011	Resin Trap	NS-AQ	D	~~C~~RS	No	UKA	ASME VIII[8], RG 1.143[25], RW-IIa~~e~~
30GDA13 AP001	Waste Water Pump	NS-AQ	D	~~C~~RS	No	UKA	ASME VIII[8], RG 1.143[25], RW-IIa~~e~~
PA	**Circulating Water Supply System**	NS	N/A	NSC	No	UMA, UZT	
PG	**Turbine Building Closed Cooling Water System**	NS	N/A	NSC	No	UMA, UZT	ASME B31.1[6], ASME VIII[8]

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STRUCTURES							
UFA, UJA, UJB, UJH, UJK, UJE, JM	**Nuclear Island Structural System (Fuel, Reactor, Safeguard Buildings)**	S	N/A	I	Yes	UFA, UJA, UJB, UJH, UJK, UJE, JM	
JMK	Piping Containment Penetrations	S	B	I	Yes	UJA, UJB	ASME Class 2[2]
JML	Cable Containment Penetrations	S	B	I	Yes	UJA, UJB	ASME Class 2[2]
UJA	Safety-Related Reactor Building Doors	S	N/A	I	Yes	UJA	Must maintain structural integrity during SSE and opens on dif. pressure to support LBB and subcompartment analysis.
UJA	Non-Safety-Related Reactor Building Doors	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]
UJA	Pressurizer Compartment Rupture Foils	NS-AQ	N/A	II	Yes	UJA	RG 1.29[25]

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UBP	Emergency Power Generating Buildings	S	N/A	I	Yes	UBP	
URB	Essential Service Water Cooling Tower Structures	S	N/A	I	Yes	URB	
UQB	Essential Service Water Pump Buildings	S	N/A	I	Yes	UQB	
UKA	Nuclear Auxiliary Building	NS-AQ	N/A	RS, II	Yes	UKA	RG 1.143[25], RW-IIa RG 1.29[25]
UKS	Radioactive Waste Processing Building	NS-AQ	N/A	RS	No	UKS	RG 1.143[25], RW-IIa
UKH	Vent Stack	S	N/A	I	Yes	UKH	
[[UMA, UBA	Turbine Building (Switchgear Building)	NS-AQ	N/A	II	Yes	UMA, UBA]]	RG 1.29[25]
[[UKE	Access Building	NS-AQ	N/A	II	Yes	UKE]]	RG 1.29[25]
[[USG	Fire Protection Building and Fire Water Storage Tanks	NS-AQ	N/A	CS	No	USG	ASCE 7-10, AWWA D100 (Tanks only), RG 1.189[25]]]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
SM, SN	**Cranes, Hoists, and Elevators**						
SMJ06	Assembly Crane	NS-AQ	N/A	II	Yes	UJA	ASME NUM-1 RG 1.29[25]
SM	Balance of Cranes and Hoists	NS	N/A	NSC	No	All	ASME NOG-1, ASME NUM-1
SMB11/12/21/31/41/42	Diesel Hall Cranes	NS-AQ	N/A	II	Yes	UBP	ASME NUM-1 RG 1.29[25]
SMK12	Drum Storage Area Crane	NS	N/A	NSC	No	UKS	ASME NOG-1
SN	Elevators	NS	N/A	NSC	No	UJA	ASME A17.1
SMK11	Entrance Area Crane	NS	N/A	NSC	No	UKS	ASME NOG-1
SMF02/03	Equipment Lock Cranes	NS-AQ	N/A	II	Yes	UFA	ASME NOG-1, ASME NUM-1 RG 1.29[25]
SMK01	Hot Workshop Crane	NS	N/A	NSC	No	UKA	ASME NOG-1
SMK13	Hot Workshop Crane	NS	N/A	NSC	No	UKS	ASME NOG-1
SMJ02/03/04/05	HVAC Equipment Room Cranes	NS-AQ	N/A	II	Yes	UJA	ASME NUM-1 RG 1.29[25]
SMJ32/33/34/35	Main Steam Valve Station Cranes	NS-AQ	N/A	II	Yes	UJH	ASME NUM-1 RG 1.29[25]

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SMQ05/06/07/08	Pump Room Cranes	NS-AQ	N/A	II	Yes	UQB	ASME NUM-1 RG 1.29[25]
SMA01	Manual Hoists	NS	N/A	NSC	No	All	ANSI/ASME B30.11, ANSI/ ASME B30.21
SMZ01	Outdoor Crane	NS-AQ	N/A	II	Yes	UZT	ASME NOG-1 RG 1.29[25]
SMJ01	Polar Crane	NS-AQ	N/A	II	Yes	UJA	ASME NOG-1 RG 1.29[25]
SMJ07/08/09/10	Steam Generator Cubicle Cranes	NS-AQ	N/A	II	Yes	UJA	ASME NUM-1 RG 1.29[25]
[[UBZ	**Buried Conduit Duct Bank**	S	N/A	I	Yes	UBZ]]	
HVAC SYSTEMS							
SAB	**Main Control Room Air Conditioning System**						
30SAB11/14 AT003	Carbon Adsorbers	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB01/02/03/04 AT004	Moisture Separators ~~Demisters~~	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB45 AA004	Downstream Exhaust Air Isolation Damper	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB32 AH001-007	Electric Air Heaters	S	N/A	I	Yes	UJK	ASME AG-1[14]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
SAB	Safety-Related Fire Dampers	S	N/A	I	Yes	UJK	NFPA 90A[18] NFPA 80A[20]
30SAB11/14 AH001	Electric Heater for Carbon Filter	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB11/14 AA002	ESF Filter Train Backdraft Damper	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB11/14 AA004	ESF Recirc Isolation Damper	S	N/A	I	Yes	UJK	ASME AG-114
30SAB11/14 AA005	ESF Recirc Backdraft Damper	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB11/14 AN001	ESF Filter Train Fans	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB11/14 AA003/ AA004	ESF Filter Train Isolation Dampers, Electric Operated	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB45 AN001	Exhaust Fan	NS-AQ	N/A	II	Yes	UJK	ASME AG-1[14] RG 1.29[25]
30SAB01/02/03/04 AA011	Backdraft Dampers	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB45 BS001	Exhaust Fan Silencer	NS-AQ	N/A	II	Yes	UJK	ASME AG-1[14] RG 1.29[25]
30SAB45 AA005	Exhaust Air Balancing Damper	NS-AQ	N/A	II	Yes	UJK	ASME AG-1[14] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30SAB11/14 AT001	Pre-Filters	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB01/02/03/04 AC001	Recirc Air Cooling Coils with Safety Chilled Water	S	C	I	Yes	UJK	ASME Class 3[3]
30SAB01/02/03/04 AA009	Recirculation Unit Isolation Dampers	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB01/02/03/04 BS003	Silencers on Fan Discharge Side	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB01/02/03/04 BS002	Silencers on Fan Suctions	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB01/04 SD001	Smoke Detector	NS-AQ	N/A	II	Yes	UJK	Local Bldg. Code RG 1.29[25] RG 1.189[25]
30SAB 01/02/03/04 SD002	Smoke Detector	NS-AQ	N/A	II	Yes	UJK	Local Bldg. Code RG 1.29[25] RG 1.189[25]
30SAB01/02/03/04 AN001	Supply Air Fans	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB45 AA003	Upstream Exhaust Air Isolation Damper	S	N/A	I	Yes	UJK	ASME AG-1[14]
30SAB45 AA006	Exhaust Air Backdraft Damper	S	N/A	I	Yes	UJK	ASME AG-1[14]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
SAD	**Emergency Power Generating Building Ventilation System**						
30SAD11/21/31/41-AA001/AA002	Backdraft Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD11/21/31/41-AA003	Backdraft Dampers	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD15/25/35/45-AA001/AA002	Backdraft Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD15/25/35/45-AA003	Backdraft Dampers	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD13/23/33/43-AA010	Backdraft Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD16/26/36/46-AA001/AA005	Backdraft Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD11/21/31/41-AT001/AT002	Pre-filters	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD11/21/31/41-AT003	Pre-filters	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD13/23/33/43-AT001	Pre-filters	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD13/23/33/43-AT003	Pre-filters	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30SAD11/21/31/41-AN001/AN002	Supply Air Fans	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD11/21/31/41-AN003	Supply Air Fans	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD13/23/33/43-AN001	Supply Air Fans	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD13/23/33/43-AN002	Supply Air Fans	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD11/21/31/41-AA004	Motor Operated Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD15/25/35/45-AA004	Motor Operated Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD13/23/33/43-AA007	Motor Operated Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD16/26/36/46-AA007/AA008	Motor Operated Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD11/21/31/41-AA005	Manual Dampers	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD12/22/32/42-AA001/AA002/AA003/AA004/AA005	Manual Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30SAD13/23/33/43-AA002	Manual Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD13/23/33/43-AA008/AA009	Manual Dampers	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD16/26/36/46-AA003/AA004	Manual Dampers	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD15/25/35/45-AN001/AN002	Exhaust Fans	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD15/25/35/45-AN003	Exhaust Fans	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD16/26/36/46-AN001	Exhaust Fans	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD13/23/33/43-AT002	HEPA filters	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD13/23/33/43-AC001	Cooling Coils	S	C	I	Yes	UBP	ASME AG-1 [14] ASME Class 3
30SAD13/23/33/43-AC002/AC102	Cooling Coils	NS-AQ	D	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD13/23/33/43-AT003	Moisture Separators	S	N/A	I	Yes	UBP	ASME AG-1 [14]
30SAD16/26/36/46-AH001	Electric Heaters	S	N/A	I	Yes	UBP	ASME AG-1 [14]

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30SAD14/24/34/44-AH001/AH002/ AH003/AH004	Fan Heaters	NS-AQ	N/A	II	Yes	UBP	ASME AG-1 [14] RG 1.29[25]
30SAD13/23/33/43-AA004/AA005	Fire Dampers	S	N/A	I	Yes	UBP	NFPA 90A[18], NFPA 80[20] ~~ASME AG-1[14]~~
30SAD16/26/36/46-AA002	Fire Dampers	S	N/A	I	Yes	UBP	NFPA 90A[18], NFPA 80[20] ~~ASME AG-1[14]~~
SAQ	**Essential Service Water Pump Building Ventilation System**						
30SAQ01/02/03/04AA003/004	Cooling Coil Isolation Valves	S	C	I	Yes	URB	ASME Class 3[3]
30SAQ01/02/03/04AC001	Air Cooling Coil	S	C	I	Yes	URB	ASME AG-1[14] ASME Class 3[3]
30SAQ01/02/03/04AA002	Recirc Chiller Balancing Damper	S	N/A	I	Yes	URB	ASME AG-1[14]
30SAQ01/02/03/04AT002	Recirc Chiller Prefilter	S	N/A	I	Yes	URB	ASME AG-1[14]
30SAQ01/02/03/04AN001	Recirc Fan	S	N/A	I	Yes	URB	ASME AG-1[14]
30SAQ01/02/03/04AT001	Recirc Chiller Moisture Separator	S	N/A	I	Yes	URB	ASME AG-1[14]

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30SAQ01/02/03/ 04AH001/002	Room Electric Air Heaters	S	N/A	I	Yes	URB	ASME AG-1[14]
30SAQ01/02/03/ 04AA007/005	Inlet/Exhaust Air Isolation Dampers	S	N/A	I	Yes	URB	ASME AG-1[14]
30SAQ01/02/03/ 04AA008/006	Split Cooler Balancing Dampers	NS-AQ	N/A	II	Yes	URB	ASME AG-1[14] RG 1.29[25]
30SAQ01/02/03/ 04AT003	Split Cooler Prefilter	NS-AQ	N/A	II	Yes	URB	ASME AG-1[14] RG 1.29[25]
30SAQ01/02/03/ 04AC002	Split Cooler Chiller Unit	NS-AQ	D	II	Yes	URB	ASME AG-1[14] ASME ~~Class 3~~ VIII [8] RG 1.29[25]
30SAQ01/02/03/ 04AC102	Split Cooler Cooling Unit	NS-AQ	D	II	Yes	URB	ASME AG-1[14] ASME ~~Class 3~~ VIII [8] RG 1.29[25]
30SAQ01/02/03/ 04AN002	Split Cooler Fan	NS-AQ	N/A	II	Yes	URB	ASME AG-1[14] RG 1.29[25]
KLA	**Containment Building Ventilation System**						
30KLA50 AT003	Carbon Adsorber (KLA 5)	NS-AQ	N/A	I	Yes	UJA	ASME AG-1[14], ASME N510 RG 1.45[25]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLA21/22 AA004/ 007	Dampers, Isolation	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510, RG 1.52
30KLA50 AH001	Electric Heater, (KLA 5)	NS-AQ	N/A	I	Yes	UJA	ASME AG-1[14], ASME N510 RG 1.45[25]
30KLA21/22 AH005	Electric Heaters	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510, RG 1.52
30KLA51/52 AN001	Fans, Internal Filtration System	NS-AQ	N/A	I	Yes	UJA	ASME AG-1[14], ASME N510- RG 1.45[25]
30KLA21/22 AN001	Fans, Low Flow Purge Exhaust	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510, RG 1.52
30KLA61/62/63/64 AN001	Fans, Main Supply (4 x 50%)	NS	N/A	NSC	No	UJA	~~ASME AG-1[14]~~
30KLA50 AT002	HEPA Filter (KLA 5)	NS-AQ	N/A	I	Yes	UJA	ASME AG-1[14], ASME N510 RG 1.45[25]
30KLA50 AT004	~~HEPA~~Post Filter (KLA 5)	NS-AQ	N/A	I	Yes	UJA	ASME AG-1[14], ASME N510 RG 1.45[25]

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLA21/22 AT002	HEPA Filters	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510, RG 1.52
30KLA21/22 AT042	~~HEPA~~Post Filters	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510, RG 1.52
30KLA21/22 AT005	Moisture Separators	S	N/A	I	Yes	UFA	ASME AG-1[14] ASME N510, RG 1.52
30KLA71 AC001-012	Local Air Cooling Units w/ QNJ Cooling Water	NS	E	NSC	No	UJA	~~ASME AG-1[14],~~ ANSI/ASME B31.1[6]
30KLA50 AT001	Pre-Filter (KLA 5)	NS-AQ	N/A	I	Yes	UJA	ASME AG-1[14], ASME N510 RG 1.45[25]
30KLA21/22 AT001	Pre-Filters	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510, RG 1.52
30KLA65/66 AN001-AN002	Reactor Pit Fans (4 x 50%)	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25] RG 1.155[25]
30KLA71 AN001-012	Supply Air Fans (Axial, Direct Drive)	NS	N/A	NSC	No	UJA	~~ASME AG-1[14]~~

Table 3.2.2-1—Classification Summary
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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLA20 AA003C/ 003D/003E	KLA 2 SCB Isolation Valves	NS-AQ	D	II	Yes	UFA	ANSI/ASME B31.1[6] RG 1.29[25]
30KLA24 AA001/ 003	ESF Filter Bypass Isolation Dampers	S	N/A	I	Yes	UFA	ASME AG-1[14], ASME N510
30KLA24 AA002	ESF Filter Bypass Fire Damper	S	N/A	I	Yes	UFA	NFPA 90A[18], NFPA 80[20]
30KLA30 AA004/ 008	Motor Operated Dampers	NS-AQ	N/A	II	Yes	UFA	ASME AG-1[14] RG 1.29[25]
30KLA30 AA007	Motor Operated Dampers	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25]
30KLA30 AA006	Manual Control Damper	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25]
30KLA40 AA004/ 005/007	Motor Operated Dampers	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25]
30KLA40 AA003/ 008	Manual Isolation Dampers	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25]
30KLA61/62/63/64 AA001	Backdraft Dampers	NS	N/A	NSC	No	UJA	
30KLA65/66 AA002/ 004	Backdraft Dampers	NS-AQ	N/A	II	Yes	UJA	ASME AG-1[14] RG 1.29[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLL41/44 AA100/ 101	Fuel Building Exhaust Air Isolation Dampers	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL31 AA049	Fuel Building Supply Air Isolation Damper	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL31/34 AA090	Fuel Building Supply Air Isolation Damper	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL34 AA065	Fuel Building Supply Air Isolation Damper	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL61AH010/011 30KLL64AH012-014	Non-Safety Related Electric Heating Units in supply air duct	NS-AQ	N/A	II	Yes	UFA	ASME AG-1[14] RG 1.29[25]
30KLL61/64 AT/ AN002/003	Recirculation Cooling Units in FAK Pump Rooms	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL61/64 AT/ AN001	Recirculation Cooling Units in JDH Pump Rooms	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL61/64AH001-004	Safety Related Electric Heating Units in JDH Pump Rooms and Pipe Chase	S	N/A	I	Yes	UFA	ASME AG-1[14]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLL11/14 AA001-003	Supply Isolation Dampers	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL11 AA010	Supply Pressure Control Damper	NS-AQ	N/A	II	Yes	UFA	ASME AG-1[14] RG 1.29[25]
KLL	Balance of KLL System	NS-AQ	N/A	II	Yes	UFA	ASME AG-1[14] RG 1.29[25]
KLL	Exhaust Air Duct	S	N/A	I	Yes	UFA	ASME AG-1[14]
KLL	Fire Dampers on exhaust air duct	S	N/A	I	Yes	UFA	NFPA 90A[18], NFPA 80[20]
KLL	All other Fire Dampers	NS-AQ	N/A	II	Yes	UFA	NFPA 90A[18], NFPA 80[20] RG 1.29[25]
30KLL64AH020/021 30KLL61AH022-028	Non-safety-related Space Electric Heating Units	NS	N/A	NSC	No	UFA	Commercial
30KLL31AA009 30KLL34AA011	Supply Air Manual Isolation Dampers	NS-AQ	N/A	II	Yes	UFA	ASME AG-1[14] RG 1.29[25]
30KLL41AA004 30KLL44AA022	Exhaust Air Manual Isolation Dampers	S	N/A	I	Yes	UFA	ASME AG-1[14]
30KLL61/64 AC001	Recirculation Cooling Coil in JDH Pump Room	S	C	I	Yes	UFA	ASME AG-1[14], ASME Class 3[3]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLL61/64 AC002/ 003	Recirculation Cooling Coil in FAK Pump Room	S	C	I	Yes	UFA	ASME AG-1[14], ASME Class 3[3]
SAM3	**Main Steam & Feedwater Valve Room Ventilation System**						
SAM3	Recirculation Cooling Units	NS	E	NSC	No	UJE	
SAM3	Electric Heaters	NS	N/A	NSC	No	UJE	
KLD	**Access Building Ventilation System**						
KLD	Building Protection Grilles	NS	N/A	NSC	No	UKE	
KLD	Control Area Exhaust Dampers	NS-AQ	N/A	NSC	No	UKE, UKA	ASME AG-1[14] RG 1.140[25]
30KLD41/42/43 AT002	Controlled Area HEPA Filters	NS-AQ	N/A	NSC	No	UKE	ASME AG-1[14] RG 1.140[25]
30KLD41/42/43 AT001	Controlled Area Pre-Filters	NS-AQ	N/A	NSC	No	UKE	ASME AG-1[14] RG 1.140[25]
30KLD01/02 AT005	Droplet Separators	NS	N/A	NSC	No	UKE	
KLD	Duct Electric Air Heaters	NS	N/A	NSC	No	UKE	
30KLD45/46 AN001	Exhaust Fans - Controlled Area	NS-AQ	N/A	NSC	No	UKA	ASME AG-1[14] RG 1.140[25]

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KKS System or Component Code	SSC Description	Safety Classification (Note 15)	Quality Group Classification	Seismic Category (Note 16)	10 CFR 50 Appendix B Program (Note 5)	Location (Note 17)	Comments/ Commercial Code
30KLD32/33 AN001	Exhaust Fans - Supervised Area	NS	N/A	NSC	No	UKE	
30KLD04/05/32/33 AH501	Fan Motor Anti-Condensate Heaters	NS	N/A	NSC	No	UKE	
30KLD45/46 AH501	Fan Motor Anti-Condensate Heaters	NS-AQ	N/A	NSC	No	UKA	ASME AG-1[14] RG 1.140[25]
KLD	Fire Dampers	NS-AQ	N/A	NSC	No	UKE	NFPA 90A[18], NFPA 80[20] RG 1.189[25]
KLD	Intake/Exhaust Screens	NS	N/A	NSC	No	UKE, UJA	
30KLD39 AN001	Prestressing Gallery Exhaust Fan	NS	N/A	NSC	No	UJA	
30KLD01/02 AT006	Roughing Filters	NS	N/A	NSC	No	UKE	
KLD	Silencers	NS	N/A	NSC	No	UKE	
~~30KLD09 AC001~~	~~Steam Humidifier~~	~~NS~~	~~N/A~~	~~NSC~~	~~No~~	~~UKE~~	
30KLD01/02 AC002	Supply Air Coolers	NS	E	NSC	No	UKE	ANSI/ASME B31.1[6]
30KLD04/05 AN001	Supply Air Fans	NS	N/A	NSC	No	UKE	
30KLD01/02 AC003	Supply Air Heaters	NS	E	NSC	No	UKE	ANSI/ASME B31.1[6]
30KLD01/02 AT004	Supply Air Pre-Filters	NS	N/A	NSC	No	UKE	

24. There are no specific construction code rules for this equipment. The RPV refueling cavity ring is constructed using fatigue analysis rules from ASME Section III, Class 2; and materials, design, fabrication and examination rules from Section III Class 3, to the extent that they can be applied. However, as this device is not a pressure retaining component or a support thereof, it is outside the scope of Section III; and, therefore, will not be certified or stamped as an ASME Section III vessel. Refer to Section 3.8.3.1.1 for additional information.

25. The basis for the quality assurance for the respective SSCs is detailed in the following:

- RG 1.29 Regulatory Position C.1 for Seismic Category I or C for Seismic Category II and NSC
- RG 1.189 Regulatory Position C.1.7
- RG 1.155 Regulatory Position C.3.5
- 10 CFR 50.46a Regulatory Position (b)
- RG 1.7 Regulatory Position C.2
- RG 1.143 Regulatory Position C.7
- RG 1.140 Regulatory Position C.1
- RG 1.21 Regulatory Position C.4
- NUREG-0737 Appendix B
- Staff Requirements Manual to SECY-93-087 Section II Q
- RG 1.45, Regulatory Position C 2.4
- RG 1.89 Regulatory Position C.1
- RG 1.97 Regulatory Position C