

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Thursday, July 25, 2013 3:12 PM  
**To:** Snyder, Amy  
**Cc:** Miernicki, Michael; DELANO Karen (AREVA); LEIGHLITER John (AREVA); ROMINE Judy (AREVA); RYAN Tom (AREVA); WILLS Tiffany (AREVA); HONMA George (EXTERNAL AREVA); LENTZ Tony (EXTERNAL AREVA)  
**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI No. 576, FSAR Ch. 3-NEW PHASE 4 RAI, Supplement 1  
**Attachments:** RAI 576 Supplement 1 Response US EPR DC.pdf

Amy,

AREVA NP Inc. provided a schedule for a technically correct and complete response to Question 03.02.02-16 in RAI No. 576 on April 1, 2013.

The attached file, "RAI 576 Supplement 1 Response US EPR DC.pdf," provides a technically correct and complete final response to the subject question. 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 576 Question 03.02.02-16.

The following table indicates the respective pages in the response document, "RAI 576 Supplement 1 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 576 — 03.02.02-16	2	3

This concludes the formal AREVA NP response to RAI 576, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

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

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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Monday, April 01, 2013 3:34 PM  
**To:** 'Snyder, Amy'  
**Cc:** [Michael.Miernicki@nrc.gov](mailto:Michael.Miernicki@nrc.gov); DELANO Karen (RS/NB); LEIGHLITER John (RS/NB); ROMINE Judy (RS/NB); RYAN Tom (RS/NB); WILLS Tiffany (CORP/QP); HONMA George (EXT); LENTZ Tony (External RS/NB)  
**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI No. 576, FSAR Ch. 3- NEW PHASE 4 RAI

Amy,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 576 Response US EPR DC.pdf," provides a schedule since a technically correct and complete response to the single question cannot be provided at this time.

The following table indicates the respective pages in the response document, "RAI 576 Response US EPR DC.pdf," that contain AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 576 — 03.02.02-16	2	2

The schedule for a technically correct and complete response to the question is provided below.

Question #	Response Date
RAI 576 — 03.02.02-16	August 6, 2013

Sincerely,

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

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**From:** Snyder, Amy [<mailto:Amy.Snyder@nrc.gov>]  
**Sent:** Thursday, February 28, 2013 6:37 AM  
**To:** ZZ-DL-A-USEPR-DL  
**Cc:** Ahmed, Sardar; Miernicki, Michael; Colaccino, Joseph; Segala, John  
**Subject:** U.S. EPR Design Certification Application FINAL RAI No. 576, FSAR Ch. 3- NEW PHASE 4 RAI

Attached please find the subject request for additional information (RAI). An advanced RAI was provided to you on February 8, 2013 and discussed with your staff on February 21, 2013. On February 21, 2013, you informed us that the advanced RAI does not contain proprietary information and that the advanced RAI is clear and no further clarification is needed. As result, no changes were made to the advanced 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 **by April 1, 2013**, 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.

Thank You,

Amy  
Amy Snyder, U.S. EPR Design Certification Lead Project Manager  
Licensing Branch 1 (LB1)

Division of New Reactor Licensing  
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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 4625

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**Subject:** Response to U.S. EPR Design Certification Application FINAL RAI No. 576,  
FSAR Ch. 3- NEW PHASE 4 RAI, Supplement 1  
**Sent Date:** 7/25/2013 3:11:58 PM  
**Received Date:** 7/25/2013 3:13:33 PM  
**From:** WILLIFORD Dennis (AREVA)

**Created By:** Dennis.Williford@areva.com

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**Post Office:** FUSLYNCMX03.fdom.ad.corp

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	4129	7/25/2013 3:13:33 PM
RAI 576 Supplement 1 Response US EPR DC.pdf		704343

**Options**

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

**Response to**

**Request for Additional Information No. 576, Supplement 1**

**6/04/2013**

**U.S. EPR Standard Design Certification**

**AREVA NP Inc.**

**Docket No. 52-020**

**SRP Section: 03.02.02 - System Quality Group Classification**

**Application Section: 03.02**

**SRSB Branch**

**Question 03.02.02-16:**

FSAR Rev.4, Table 3.2.2-1 has been revised to include changes in the classification of the safety-related Emergency Diesel Generator Set system and ventilation systems. These systems are classified as Quality Group NA with certain portions identified as ASME Class 3.

Staff believes that these systems or portion of these systems should be classified as Quality Group C based on the following:

- FSAR Table 1.9-2 identifies conformance with RG 1.26, Revision 4.
- RG 1.26 discusses systems that are not covered by the guide, such as auxiliary support systems for the diesels and normal ventilation, but the cooling water for systems important to safety such as the diesels is identified as Quality Group C.
- FSAR Section 3.2.2.3 states that Quality Group C applies to pressure-retaining components and their supports that are not part of the reactor coolant pressure boundary or included in Quality Group B that directly support the systems or portion of system functions listed in RG 1.26, Section 2C and SRP Section 3.2.2, Table A-1. These components include safety-related emergency diesel generator support systems.
- SRP 3.2.2 Table A-1 specifically includes the Emergency Diesel Engine fuel oil, cooling water, starting, lubrication and combustion air intake and exhaust systems as Quality Group C. SRP 3.2.2, Table A-1 also identifies the plant ventilation as Quality Group C.

Since the classification of the Emergency Diesel Generator Set system and ventilation system in the FSAR appear to be inconsistent with the regulatory guidance in RG 1.26 and SRP 3.2.2 Table A-1, clarify if this is an exception and provide justification for the exception or revise the classification to be consistent with the regulatory guidance.

**Response to Question 03.02.02-16:**

Question 03.02.02-16 refers to U.S. EPR FSAR Tier 2, Table 3.2.2-1 line items which are "systems". U.S. EPR FSAR Tier 2, Table 3.2.2-1 line items which are pressure-retaining components have Quality Group Classifications applied. The systems referred to the Question have pressure-retaining components to which Quality Group Classifications are applied in conformance to RG 1.26 and SRP 3.2.2 Table A-1. Pressure-retaining Quality Group Classifications for these systems are shown on the following U.S. EPR FSAR Tier 2 figures:

Figure 9.5.4-1	Diesel Generator Fuel Oil Storage and Transfer System
Figure 9.5.5-1	Diesel Generator Cooling Water System
Figure 9.5.6-1	Diesel Generator Starting Air System
Figure 9.5.7-1	Diesel Generator Lubricating Oil System
Figure 9.5.8-1	Diesel Generator Air Intake and Exhaust System

Similar to the Emergency Diesel Generator set, the Station Blackout Diesel Generator set also has associated systems listed in U.S. EPR FSAR Tier 2, Table 3.2.2-1. These systems also have pressure-retaining components to which Quality Group Classifications are applied in conformance to RG 1.26 and SRP 3.2.2 Table A-1.

Pressure-retaining components of the systems associated with the Emergency Diesel Generator set and the Station Blackout Diesel Generator set will be added to U.S. EPR FSAR Tier 2, Table 3.2.2-1.

The plant ventilation systems also have pressure-retaining components to which Quality Group Classifications are applied in conformance to RG 1.26 and SRP 3.2.2 Table A-1. The pressure-retaining components are listed in U.S. EPR FSAR Tier 2, Table 3.2.2-1 and are shown on the various ventilation system figures in U.S. EPR FSAR Tier 2, Section 9.4.

With the addition of the above components to U.S. EPR FSAR Tier 2, Table 3.2.2-1, conforming changes are required to U.S. EPR FSAR Tier 2, Table 3.10-2 for seismic qualification and to U.S. EPR FSAR Tier 2, Tables 3.11-1 and 3.11-2 for environmentally qualified equipment.

**FSAR Impact:**

U.S. EPR FSAR Tier 2, Table 3.2.2-1, Table 3.10-2, Table 3.11-1 and Table 3.11-2 will be revised as described in the above response and as indicated on the enclosed markup.

# U.S. EPR Final Safety Analysis Report Markups





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
30KUL58 BB001	Sodium Hydroxide Tank	NS-AQ	D	NSC	No	UFA	API 620 <sup>10</sup> <u>RG 1.21</u> <sup>25</sup> <u>NUREG-0737</u> <sup>25</sup>
30KUL56 BZ001	Sump Sampling Module	NS-AQ	D	NSC	No	4UJH	ASME VIII <sup>8</sup> <u>RG 1.21</u> <sup>25</sup> <u>NUREG-0737</u> <sup>25</sup>
<b>XJA, XKA, XJG, XJN XJQ, XJR, XJV, XJX (10/20/30/40), CXN (10/11/20/21/30/31/40/41)</b>	<b>Emergency Diesel Generator Set</b>						
30XKA10/20/30/40 AG001	AC Synchronous Generator	S	N/A	I	Yes	UBP	IEEE 387; NEMA MG 1-2003; IEEE 112
<del>30XJX10/20/30/40</del>	<del>Air Start System from Receiver Inlet Check Valves to Engine</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	<del>ASME Class 3<sup>3</sup></del>
<del>30XJX10/20/30/40</del>	<del>Air Start System on Engine</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	



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
<del>30XJX10/20/30/40</del>	<del>Air Start System Up-to-Receiver Inlet Check Valves</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>II</del>	<del>Yes</del>	<del>UBP</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30XJQ10/20/30/40</del>	<del>Combustion Air System-to-Engine</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	<del>ASME Class 3<sup>3</sup></del>
<del>30XJQ10/20/30/40</del>	<del>Combustion Air System-on-Engine</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	
<u>30XJG10/20/30/40</u>	<u>Engine Cooling System Pressure Retaining Components</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>
<u>30XJG10/20/30/40</u>	<u>Engine Cooling System Jacket Water Standby Heater Circuit Components</u>	<u>NS-AQ</u>	<u>D</u>	<u>II</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, RG 1.29<sup>25</sup></u> <u>ASME Class 3<sup>3</sup></u>
<u>30XJN10/20/30/40</u>	<u>Fuel Oil System Pressure Retaining Components</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>
<u>30XJN10/20/30/40</u>	<u>Fuel Oil System Pump Discharge Test Lines</u>	<u>NS-AQ</u>	<u>D</u>	<u>II</u>	<u>Yes</u>	<u>UBP</u>	<u>ANSI/ASME B31.1 (6), RG 1.29<sup>25</sup></u>
<u>30XJQ10/20/30/40</u>	<u>Combustion Air System Pressure Retaining Components</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>



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
<u>30XIQ10/20/30/40</u>	<u>Combustion Air System Intake Pressure Retaining Components</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>
<u>30XJR10/20/30/40</u>	<u>Exhaust Gas System Piping</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>
<u>30XJR10/20/30/40</u>	<u>Exhaust Gas System Piping and Pressure Retaining Components outside of UBP</u>	<u>NS</u>	<u>E</u>	<u>NSC</u>	<u>No</u>	<u>UZT</u>	<u>ANSI/ASME B31.1<sup>6</sup> Manufacturer Standards</u>
<u>30XJV10/20/30/40</u>	<u>Lube Oil System Pressure Retaining Components</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>
<u>30XJV10/20/30/40</u>	<u>Lube Oil System Keep-warm/Prelube System Pressure Retaining Components</u>	<u>NS-AQ</u>	<u>D</u>	<u>II</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup> Manufacturer Standards, RG 1.29<sup>25</sup></u>
<u>30XIX10/20/30/40</u>	<u>Starting Air System Pressure Retaining Components</u>	<u>S</u>	<u>C</u>	<u>I</u>	<u>Yes</u>	<u>UBP</u>	<u>ASME Class 3<sup>3</sup></u>



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
<del>30XIX10/20/30/40</del>	<del>Starting Air System Compressor and Associated Pressure Retaining Components</del>	<del>NS-AQ</del>	<del>D</del>	<del>II</del>	<del>Yes</del>	<del>UBP</del>	<del>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, RG 1.29<sup>25</sup></del>
30XIX10/20/30/40	Starting Air System Pipe (from compressor inlet filter to receiver inlet check valves)	NS-AQ	D	II	Yes	UBP	ANSI/ASME B31.1 <sup>6</sup> RG 1.29 <sup>25</sup>
30CXN10/20/30/40	Control Switches, Relays, and Safety-related Sensors (Engine and Auxiliary System - Thermal, Pressure, Level)	S	N/A	I	Yes	UBP	IEEE 323
30CXN10/20/30/40	Sensors (Engine and Auxiliary System - Thermal, Pressure, Level)	NS	N/A	NSC	N	UBP	Manufacturer Standards
30CXN10/20/30/40	Control Panels	S	N/A	I	Yes	UBP	IEEE 420
<del>30XJG10/20/30/40</del>	<del>Cooling Water System-to-Engine</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	<del>ASME Class 3<sup>3</sup></del>
30XJG10/20/30/40	Cooling Water System-on-Engine	S	N/A	I	Yes	UBP	



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
30XJA10/20/30/40 AV100	Diesel Engine (Excluding Engine-Driven Cooling, Lubrication, and Fuel Pumps)	S	N/A	I	Yes	UBP	IEE-387- Manufacturer Standards
30XJA10/20/30/40 AP100	Engine Governor	S	N/A	I	Yes	UBP	
30XJR10/20/30/40	Exhaust Emissions-Equipment, Exhaust-Silencer and Exhaust-Stack-Outside-Building	NS	N/A	NSC	No	UZT	ANSI/ASME-B31.1 <sup>6</sup>
30XJR10/20/30/40	Exhaust System from-Engine, including-Bypass-Inside-Building	S	N/A	I	Yes	UBP	ASME-Class-3 <sup>3</sup>
30XJR10/20/30/40	Exhaust System-on-Engine	S	N/A	I	Yes	UBP	
30XJR10/20/30/40	Exhaust System-Bypass-Rupture-Dise	S	N/A	I	Yes	UBP	
30XJN10/20/30/40	Fuel Oil System-to-Engine	S	N/A	I	Yes	UBP	ASME-Class-3 <sup>3</sup>
30XJN10/20/30/40	Fuel Oil System-on-Engine	S	N/A	I	Yes	UBP	



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
<del>30XJG10/20/30/40</del>	<del>Jacket Water Standby Heater Circuit</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>H</del>	<del>Yes</del>	<del>UBP</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30XJV10/20/30/40</del>	<del>Lube Oil Keepwarm/Pre-lube Circuit</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>H</del>	<del>Yes</del>	<del>UBP</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30XJV10/20/30/40</del>	<del>Lube Oil System</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	<del>ASME-Class 3<sup>3</sup></del>
<del>30XJA10/20/30/40-AN100A/B</del>	<del>Turbochargers</del>	<del>S</del>	<del>N/A</del>	<del>I</del>	<del>Yes</del>	<del>UBP</del>	
<b>Station Blackout Diesel Generator Set</b>							
<del>30XKA50/80 AG001</del>	<del>AC Synchronous Generator</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSC</del>	<del>No</del>	<del>UBA</del>	<del>IEEE 387, NEMA MG 1-2003, IEEE 112 RG 1.155<sup>25</sup></del>
<del>30XJR50/80</del>	<del>Air Exhaust System</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30CXN50/80</del>	<del>Control Panels</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSC</del>	<del>No</del>	<del>UBA</del>	<del>IEEE 420 RG 1.155<sup>25</sup></del>
<del>30XJG50/80</del>	<del>Cooling Water System</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>



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
30XJA50/80 AV100	Diesel Engine ( <del>Excluding Engine-Driven Cooling, Lubrication, and Fuel Pumps</del> )	NS-AQ	N/A	NSC	No	UBA	<u>IEEE 387, Manufacturer Standards, RG 1.155<sup>25</sup></u>
<u>30XJG50/80</u>	<u>Engine Cooling System Pressure Retaining Components</u>	<u>NS-AQ</u>	<u>D</u>	<u>NSC</u>	<u>No</u>	<u>UBA</u>	<u>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, API 650 (11), RG 1.155<sup>25</sup></u>
<u>30XJN50/80</u>	<u>Fuel Oil System Pressure Retaining Components</u>	<u>NS-AQ</u>	<u>D</u>	<u>NSC</u>	<u>No</u>	<u>UBA</u>	<u>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup>, API 650 (11), Manufacturer Standards, RG 1.155<sup>25</sup></u>
<u>30XJQ50/80</u>	<u>Combustion Air System Pressure Retaining Components</u>	<u>NS-AQ</u>	<u>D</u>	<u>NSC</u>	<u>No</u>	<u>UBA</u>	<u>ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, RG 1.155<sup>25</sup></u>
<u>30XJR50/80</u>	<u>Exhaust System Pressure Retaining Components</u>	<u>NS-AQ</u>	<u>D</u>	<u>NSC</u>	<u>No</u>	<u>UBA</u>	<u>ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, RG 1.155<sup>25</sup></u>



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
<del>30XIV50/80</del>	<del>Lube Oil System Pressure Retaining Components</del>	<del>NS-AQ</del>	<del>D</del>	<del>NSC</del>	<del>No</del>	<del>UBA</del>	<del>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, RG 1.155<sup>25</sup></del>
<del>30XIX50/80</del>	<del>Starting Air System Pressure Retaining Components</del>	<del>NS-AQ</del>	<del>D</del>	<del>NSC</del>	<del>No</del>	<del>UBA</del>	<del>ASME VIII.8, ANSI/ASME B31.1<sup>6</sup>, Manufacturer Standards, RG 1.155<sup>25</sup></del>
<del>30CXN50/80</del>	<del>Control Switches, Relays, and Sensors</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSC</del>	<del>No</del>	<del>UBA</del>	<del>Manufacturer Standards, RG 1.155<sup>25</sup></del>
<del>30XIA50/80-AP100</del>	<del>Engine Governor</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	
<del>30XIQ50/80</del>	<del>Exhaust Gas and Air Intake System</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30XJN50/80</del>	<del>Fuel Oil System</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30XKA50/80-AH</del>	<del>Generator Space Heaters</del>	<del>NS</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	
<del>30XKA50/80-GT</del>	<del>Generator Thermal Sensors</del>	<del>NS</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	
<del>30XJV50/80</del>	<del>Lube Oil System</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>
<del>30XJX50/80</del>	<del>Starting Air System</del>	<del>NS-AQ</del>	<del>N/A</del>	<del>NSG</del>	<del>No</del>	<del>UBA</del>	<del>ANSI/ASME-B31.1<sup>6</sup></del>





**Table 3.10-2—List of U.S. EPR Important-to-Safety Systems Screened for the Seismic Qualification Program**  
**Sheet 2 of 5**

Category	Systems
Auxiliary Systems	Nuclear Sampling KU
	Sampling Activity Monitoring KLK
	Emergency Diesel Generator Set XJA, XKA, XJN, XJV, XJG, XJQ, XJR, XJX, <span style="border: 1px solid red; padding: 2px;"><del>XGN</del></span>
	Combustible Gas Control JMT
Electrical Systems	Class 1E Uninterruptible Power Supply BGA, BRA, BRU01, BRW, BTB, BTP, BUC, BUW, <u>BGT, BLB, BLT, BUF, BRD</u>
	Emergency Power Supply BD, BM, BN, <u>BF</u>
	Non-Class 1E Uninterruptible Power Supply BRJ, BRU02, BRZ, BTA, BTL, BUB, BUM, BUZ
	Lighting & Small Power Supply BG, BJ, BL, BZL
	Normal Power supply BB, BF, BH
	12-Hour Uninterruptible Power Supply BRB, BRC, BRU03, BRV, BRX, BTB, BTM, BUD, BUE, BUV, BUX



**Table 3.11-1—List of Environmentally Qualified Electrical/I&C Equipment**  
Sheet 85 of 139

Name Tag (Equipment Description)	Tag Number	Local Area KKS ID (Room Location)	EQ Environ- ment (Note 1)	Radiation Environment Zone (Note 2)	EQ Designated Function (Note 3)	Safety Class (Note 4)	EQ Program Designation (Note 5)
Exhaust Gas System Valve Actuators	30XJR30AA	33UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Exhaust Gas System Valve Actuators	30XJR40AA	34UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Lube Oil System Valve Actuators	30XJV10AA	31UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Lube Oil System Valve Actuators	30XJV20AA	32UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Lube Oil System Valve Actuators	30XJV30AA	33UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Lube Oil System Valve Actuators	30XJV40AA	34UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Starting Air System Valve Actuators	30XJX10AA	31UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Starting Air System Valve Actuators	30XJX20AA	32UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Starting Air System Valve Actuators	30XJX30AA	33UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Starting Air System Valve Actuators	30XJX40AA	34UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Ac Synchronous Generator Electrical	30XKA10AG	31UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Ac Synchronous Generator Electrical	30XKA20AG	32UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Ac Synchronous Generator Electrical	30XKA30AG	33UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Ac Synchronous Generator Electrical	30XKA40AG	34UBP04004	M	M	SI	S 1E EMC	Y (5) Y (6)
Generator Space Heaters	30XKA10AH	31UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Generator Space Heaters	30XKA20AH	32UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Generator Space Heaters	30XKA30AH	33UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Generator Space Heaters	30XKA40AH	34UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Control Panels, Switches, Relays, and Sensors	30CXN10	31UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Control Panels, Switches, Relays, and Sensors	30CXN20	32UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Control Panels, Switches, Relays, and Sensors	30CXN30	33UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
Control Panels, Switches, Relays, and Sensors	30CXN40	34UBP	M	M	SI	S 1E EMC	Y (5) Y (6)
<b>Combustible Gas Control System (CGCS)</b>							
H2 Mixing Damper 01	30JMT20AA001	30UJA07046	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 02	30JMT20AA002	30UJA07046	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 03	30JMT20AA003	30UJA07046	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 04	30JMT20AA004	30UJA07046	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 05	30JMT20AA005	30UJA07044	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 06	30JMT20AA006	30UJA07044	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 07	30JMT20AA007	30UJA07044	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 08	30JMT20AA008	30UJA07044	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 01 – Open (M)	30JMT20CG001A	30UJA07046	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)
H2 Mixing Damper 01 – Closed (M)	30JMT20CG001B	30UJA07046	H	H	ES	S 1E EMC	Y (1) Y (5) Y (6)



**Table 3.11-2—List of U.S. EPR Important to Safety Systems Screened for the EQ Program  
Sheet 2 of 5**

Category	Systems
Auxiliary Systems	Nuclear Sampling KU
	Sampling Activity Monitoring KLK
	Emergency Diesel Generator Set XJA, XKA, XJN, XJV, XJG, XJQ, XJR, XJX, <span style="border: 1px solid red; padding: 2px;"><del>XGN</del><del>CXN</del></span>
	Combustible Gas Control JMT
	<u>Fuel Handling System</u> <u>FCI</u>
Electrical Systems	Class 1E Uninterruptible Power Supply BGA, BRA, BRU01, BRW, BTD, BTP, BUC, BUW, <u>BGT, BLB, BLT, BUF, BRD</u>
	Emergency Power Supply BD, BM, BN, <u>BF</u>
	Non-Class 1E Uninterruptible Power Supply BRJ, BRU02, BRZ, BTA, BTL, BUB, BUM, BUZ
	Lighting & Small Power Supply BG, BJ, BL, BZL
	Normal Power supply BB, BF, BH
	12-Hour Uninterruptible Power Supply BRB, BRC, BRU03, BRV, BRX, BTB, BTM, BUD, BUE, BUV, BUX