

**Table 3.11-2—List of U.S. EPR Important to Safety Systems Screened for the EQ Program
Sheet 1 of 5**

Category	Systems
Fluid Systems	Reactor Coolant JE (except JEW), JA, JDA ¹
	Safety Injection & Residual Heat Removal JNA, JND, JNG
	Component Cooling Water KA
	Essential Service Water PE
	Safety Chilled Water QK
	Extra Borating JDH
	Feedwater LA
	Emergency Feedwater LAR, LAS
	In-containment Refueling Water Storage Tank (IRWST) JNK
	Main Steam LB
	Steam Generator Blowdown LCQ
	Chemical & Volume Control System KBA, KBD, JEW
	Fuel Pool Cooling & Purification System FAK, FAL
	Nuclear Island Drain and Vent System KT
	Fire Water Distribution System SGB

**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, CXN
	Combustible Gas Control JMT
	Fuel Handling System FCJ
Electrical Systems	Class 1E Uninterruptible Power Supply BGA, BRA, BRU01, BRW, BTD, BTP, BUC, BUW, BGT, BLB, BLT, BUF, BRD
	Emergency Power Supply BD, BM, BN, BF
	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 3.11-2—List of U.S. EPR Important to Safety Systems Screened for the EQ Program
Sheet 3 of 5**

Category	Systems
I&C Systems	Protection JR, CLE, CLF, CLG, CLH
	Safety Automation DR
	Priority & Actuator Control DS, CLE6, CLF6, CLG6, CLH6
	Signal Conditioning and Distribution CLE51/52, CLF51/52, CLG51/52, CLH51/52
	Safety Information & Control CWY, JR
	Incore Instrumentation JKS, JKQ, CNC, CNN, CLE12/15, CLF12/15, CLG12/15, CLH12/15
	Excore Instrumentation JKT, CLE13, CLF13, CLG13, CLH13
	Boron Concentration Measurement CLE23, CLF23, CLG23, CLH23
	Rod Position Measurement CLE11, CLF11, CLG11, CLH11
	Reactor Pressure Vessel Level Measurement JKR, JKS, CLE14, CLF14, CLG14, CLH14
	Control Rod Drive Control BU
	Hydrogen Monitoring JMU
	Radiation Monitoring JYK, LBA, CLE20, CLF20, CLG20, CLH20
	Diverse Actuation CME51, CME52, CME53, CME54
	Fatigue Monitoring JYL
	Leak Detection JYH
	Process Information & Control CRU
	Reactor Control, Surveillance & Limitation JS
Seismic Monitoring CPE	

**Table 3.11-2—List of U.S. EPR Important to Safety Systems Screened for the EQ Program
Sheet 4 of 5**

Category	Systems
HVAC Systems	Containment Building Ventilation KLA
	Annulus Ventilation KLB
	Safeguard Building Controlled Area Ventilation KLC
	Electrical Division Safeguards Building Ventilation SAC
	Fuel Building Ventilation KLL
	Main Control Room Air Conditioning SAB
	Essential Service Water Pump Building Ventilation SAQ
	Emergency Power Generating Building Ventilation SAD

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

Category	Systems
Containment Isolation Systems ²	Fuel Pool Cooling & Purification FAK, FAL
	Demineralized Water Distribution GHC
	Severe Accident Heat Removal JMQ
	Gaseous Waste Processing KPL
	Condensate (Inside Containment) LC, LD, MAG
	Central Gas Distribution (Nitrogen) QJ
	Operational Chilled Water—Nuclear Island QNA, QNB, QNJ
	Secondary Sampling (SG Blowdown) QU
	Compressed Air SC
	Fire Water Distribution SGA, SGB
	Nuclear Island Drain and Vent KT
	Containment Penetrations—Electrical JML

Notes:

1. The U.S. EPR subscribes to the Kraftwerks Kennzeichen System (KKS) for coding and nomenclature of SSCs.
2. These systems were reviewed for the EQ Program for only the components associated with the Containment Isolation function.

Table 3.11-3—Equipment Distribution in Safeguard Buildings

Table 3.11-4—Summary Comparison of IEEE Endorsed Standards versus Latest IEEE Standards

Endorsed IEEE Standard	Regulatory Guide	Equipment Type/ Subject	Latest IEEE Standard Edition
317-1983	1.63, Rev. 3	Penetrations	317-1983 (R2003) ²
323-1974 (Harsh Env.)	1.89, Rev. 1	Electrical /I&C	323-2003
323-2003 (Mild Env.)	1.209 (3/2007)	Computer Based/Digital I&C	323-2003
334-1971	1.40, Rev. 0	Motors	334-2006
344-2004	1.100, Rev. 3	Seismic	344-2004
382-1974	1.73, Rev. 0	Actuators	382-2006
383-1974	1.131, P1 ¹	Cables	383-2003
387-1995	1.9, Rev. 4	EDG	387-1995 (R2007)
497-2002	1.97, Rev. 4	PAM	497-2002
535-1986	1.158, Rev. 0	Batteries	535-1986 (R1994)
572-1985	1.156, Rev. 0	Connectors	572-2006
7-4.3.2-2003	1.152, Rev. 2	Computers	7-4.3.2-2003
None	1.180, Rev. 1	RFI/EMI	None
None	1.183 (7/2000)	Alt. Radiation Source Term	None

Notes:

1. RG 1.131, P1, 1979 is a Proposed Revision 1 (P1) “for comment” version of the Reg. Guide revision.
2. For an IEEE standard, the “R” just prior to the year means that the previously cited version of the standard was “Reaffirmed” in the later year shown. Reaffirmation is an approval process whereby the document is not changed, just agreed to be re-issued, as is. This reaffirmation is performed and noted because there is an IEEE requirement that standards be re-evaluated every 5 years to determine if a revision is deemed necessary. If a change is needed, then the document will be revised, and the year of revision is cited for the new document. If no changes are needed, then the document is cited with the date of latest publication followed by a notation that it was reaffirmed and the year of reaffirmation.

Table 3.11-5—Summary of IEEE Non-Endorsed Standards

IEEE Standard	Subject
627-1980/R1991	Qualification of Equipment
628-2001	Raceways
638-2006	Transformers
649-2006	MCC
650-2006	Charger/Inverter
1202-1991/R1996	Cable flame tests
1205-2000	Aging
1290-1996/R2005	MOV applications
C37.82-1987/R2004	Switchgear
C37.105-1987/R1999	Protective relays