Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
B NUCLEAR STEAM SUPPLY SYSTEMS						
B11 Reactor Pressure Vessel System						
1. Reactor pressure vessel	1	CV	A	~~B~~Q	I	
2. Reactor vessel appurtenances – reactor coolant pressure boundary (RCPB) portions	1	CV	A	~~B~~Q	I	
3. Control Rod Drive housing and in-core housing	1	CV	A	~~B~~Q	I	
4. Control rods	2	CV	—	~~B~~Q	I	
5. Standby Liquid Control (SLC) system header and spargers	2	CV	—	~~B~~Q	I	
6. Reactor vessel support and stabilizer	1	CV	A	~~B~~Q	I	
7. Other safety-related reactor internals, including core support structures (Subsection 3.9.5)	3	CV	B	~~B~~Q	I	
8. Reactor internals – Nonsafety-Related components (Subsection 3.9.5)	N	CV	—	S~~E~~	II	(5) c
B21 Nuclear Boiler System (NBS)						
1. Level instrumentation condensing chambers	1	CV	A	Q~~B~~	I	
2. Safety relief valves (SRVs) and depressurization valves (DPVs)	1	CV	A	Q~~B~~	I	
3. Safety relief discharge piping (including supports)	3	CV	C	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
4. Nitrogen accumulators (for ADS and manual actuation of SRVs)	3	CV	C	Q~~B~~	I	
5. Piping and valves (including supports) for main steamlines (MSL) and feedwater (FW) lines up to and including the outermost containment isolation valves	1	CV, RB	A	Q~~B~~	I	
6. Piping (including supports) for MSL from outermost isolation valve to and including seismic interface restraint	2	RB	B	Q~~B~~	I	Seismic interface restraints are located inside the seismic category I building.
7. Deleted.						
8. Piping and valves (including supports) for FW from outermost isolation valve to the seismic interface restraint	2	RB	B	Q~~B~~	I	
9. Pipe whip restraints	3	CV, RB	—	Q~~B~~	I or II	**Pipe Whip Restraints** —Pipe Whip Restraints are required on the MSL and FW piping.
10. Main steam drain piping and valves (including supports) within outermost containment isolation valves	1	CV, RB	A	Q~~B~~	I	(7)
11. RPV head vent piping and valves (including supports) to the main steamline and to the second isolation valve	1	CV	A	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
12. Piping (including supports) for main steam drains inboard of outermost MSL isolation valves from outermost containment isolation valves up to and including the seismic restraints	N	RB	B	~~B~~S	I	(5) a
13. Piping and valves (including supports) for main steam drains beyond outermost MSL isolation valves up to and including second drain isolation valve	N	TB	B	~~E~~S	II	(5) c
14. Piping (including supports) for instrumentation up to and including first instrument isolation valve	2	CV, RB	B	~~B~~Q	I	(7)
15. Piping and valves (including supports) for instrumentation downstream of first instrument isolation valve	N	CV, RB	D	~~E~~N	NS	(7)
16. Other mechanical modules with safety-related function	3	CV, RB, CB	—	~~B~~Q	I	
17. Other electrical modules, cable, and instrumentation with safety-related function	3	CV, RB, CB	—	~~B~~Q	I	
18. Components (piping, valves, fittings) for the above-valve-seat main steam drains piping from downstream of the seismic restraint, and also for the main steam low-point drains piping from the second drain isolation valve, to the condenser nozzle connection.	N	TB	D	~~E~~S	II	(5) c

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
19. Electrical modules, cables and instrumentation supporting diverse protection functions	N	CV, RB, TB	—	S	II	(5) c, (5) i, (5) j
B32 Isolation Condenser System (ICS)						
1. Piping and valves (including supports) inside containment between reactor and the containment penetration	1	CV	A	~~B~~Q	I	
2. Isolation condenser and piping outside containment	2	RB	B	~~B~~Q	I	
3. Vent piping and valves (including supports) to suppression pool	2	CV, RB	B	~~B~~Q	I	
4. Electrical modules and cable with safety-related function	3	CV, RB	—	~~B~~Q	I	
5. Pneumatic accumulators	3	CV, RB	C	~~B~~Q	I	
6. Electrical modules and cables supporting diverse protection functions	N	CV, RB	—	S	II	(5) c, (5) i, (5) j
C CONTROL AND INSTRUMENT SYSTEMS						
C11 Rod Control and Information System (RC&IS)	N	RB, CB	—	S / N~~E~~	NS	(5) j
C12 Control Rod Drive (CRD) System						
1. CRD primary pressure boundary	1	CV	A	~~B~~Q	I	
2. CRD internals	3	CV	—	~~B~~Q	I	
3. Hydraulic control unit (HCU)	2	RB	—	~~B~~Q	I	(8)
4. Piping including supports – insert line	2	CV, RB	B	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
5. High pressure makeup piping including supports, the check valve, and the injection valve at the connection to RWCU/SDC	2	RB	B	~~B~~Q	I	CRD piping classification is consistent with piping to which it connects.
6. Piping and valves with no safety-related function (pump suction, pump discharge, drive header, and other piping not part of HCU)	N	RB	D	~~E~~S	II	(5) c, (7)
7. CRD water pumps	N	RB	D	~~E~~S	II	(5) c
8. Fine motion drive motor	N	CV	—	~~E~~S	II	(5) c
9. Electrical modules and cable with safety-related function	3	CV, RB, CB	—	~~B~~Q	I	
10. Electrical modules and cables supporting Anticipated transients without scram (ATWS) ~~equipment associated with the~~ Alternate Rod Insert (ARI) and diverse protection functions	N	RB	—	~~E~~S	II	(5) c, (5) f, (5) i, (5) j ~~**ATWS Equipment** A quality assurance program that meets or exceeds the guidance of NRC Generic Letter 85-06 is applied to all Nonsafety-Related ATWS equipment.~~
C21 Leak Detection and Isolation System (LD&IS)						
1. Electrical modules (temperature sensors, pressure transmitters, etc.) and cable with safety-related function	3	CV, RB, CB	—	~~B~~Q	I	
2. Other electrical modules and cable with no safety-related function	N	CV, RB, CB	—	~~E~~N	NS	
C31 Feedwater Control System (FWCS)	~~N~~	~~CV, TB, RB, CB, EB~~	~~—~~	~~E~~	~~NS~~	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
1. Electrical modules and cables supporting ATWS and diverse protection functions	N	TB, CB, EB	—	S	NS	(5) f, (5) j
2. Other equipment	N	CV, TB, RB, CB, EB	—	N	NS	
C41 Standby Liquid Control (SLC) System						
1. Standby liquid control accumulator including supports and vents	2	RB	B	~~B~~Q	I	
2. Valves – injection	1	RB	A	~~B~~Q	I	
3. Piping and valves (including supports) between injection valves and reactor vessel	1	CV, RB	A	~~B~~Q	I	(7)
4. Piping and valves (including supports) upstream of injection valves and downstream of automatic N_2 makeup valve	2	RB	B	~~B~~Q	I	(7)
5. N_2 gas bottles and associated piping up to automatic N_2 makeup valve	N	RB, SB	—	~~E~~N	NS	
6. Electrical modules and cable with safety-related function	3	RB, CB	—	~~B~~Q	I	
7. Electrical modules and cables supporting diverse protection functions	N	RB, CB	—	S	II	(5) c, (5) j, (5) f – for ATWS equipment, (5) i – for RTNSS equipment

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
~~7~~8. Electrical modules and cable – others	N	RB, CB	—	N~~E~~	NS	~~**ATWS Equipment** — A quality assurance program that meets or exceeds the guidance of NRC Generic Letter 85-06 is applied to all Nonsafety-Related ATWS equipment.~~
9~~8~~. Piping and valves used for poison solution fill/makeup from the fill/makeup isolation valve downstream to the accumulators	2	RB	B	Q~~B~~	I	
10~~9~~. Other equipment used for poison fill/makeup, sampling and mixing	N	RB	—	N~~E~~	NS	
C51 Neutron Monitoring System (NMS)						
1. Detector and tube assembly – primary pressure boundary	2	CV	B	~~B~~Q	I	
2. Detector and tube assembly – internals	3	CV	C	~~B~~Q	I	
3. Electrical modules and cable – SRNM, LPRM, and APRM	3	CV, CB, RB	—	~~B~~Q	I	
4. Electrical modules and cables supporting diverse protection functions	N	CV, RB, CB	—	S	II	(5) c, (5) j
C61 Remote Shutdown System (RSS)						
1. Safety-related panels	3	RB	—	Q~~B~~	I	
2. Nonsafety-Related panels	N	RB	—	S~~E~~	II	(5) c

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
C62 NonSafety-Related DCIS						
1. Electrical modules and cable with no safety-related function	N	ALL	—	S / N~~E~~	II/NS	(5) c, (5) i Components whose failure can potentially adversely affect Seismic Category I components (e.g., in main control room) are required to be Seismic Category II and Quality Class S. Otherwise the components are Seismic Category NS~~non-seismic~~ and Quality Class N.
2. Performance Monitoring and Control Subsystem equipment	N	CB	—	~~E~~S	II	(5) c
C63 Safety-Related DCIS						
1. Electrical modules and cables with safety-related function	3	RB, CB	—	Q~~B~~	I	
C71 Reactor Protection System (RPS)	3	CB, TB, RB	—	~~B~~Q	I	
C72 Diverse Protection System	N	CB, RB	—	~~E~~S	NS	(5) f, (5) i, (5) j
C74 Safety System Logic and Control (SSLC)	3	RB, CB	—	~~B~~Q	I	
C82 Plant Automation System	N	CB	—	~~E~~N	NS	
C85 Steam Bypass and Pressure Control (SB&PC) System	N	CB	—	~~E~~N	NS	
D RADIATION MONITORING SYSTEMS						
D11 Process Radiation Monitoring System (PRMS)						
1. Radiation monitors and sensors with safety-related function	3	RB, CB	—	~~B~~Q	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
2. Fission product monitoring piping and valves (including supports) forming part of the containment boundary	2	CV, RB	B	~~B~~Q	I	
3. Electrical modules and cable with safety-related function	3	CV, RB, CB	—	~~B~~Q	I	
4. Fission product monitoring system (other portions)	N	CV, RB, CB	—	~~E~~N	NS	
5. Other electrical modules and cable with no safety-related function	N	ALL	—	~~E~~N	NS	
D21 Area Radiation Monitoring System (ARMS)	N	ALL, except CV	—	N~~E~~	NS	
E CORE COOLING SYSTEMS						
E50 Gravity-Driven Cooling System (GDCS)						
1. Piping and valves (including supports) connected with the reactor vessel, including the squib valves, and up to and including the check valves upstream of the squib valves	1	CV	A	~~B~~Q	I	
2. Piping and valves (including supports) from the check valves upstream of the squib valves to the suppression pool and GDCS pools	2	CV	B	~~B~~Q	I	
3. Piping and valves (including supports) from the GDCS pools to the lower drywell	2	CV	B	~~B~~Q	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
4. Safety-related electrical modules, components and cables	3	CV, RB, CB	—	~~B~~Q	I	
5. GDCS pool splash guard and perforated plate	3	CV	—	~~B~~Q	I	
6. Nonsafety-Related electrical modules, components and cable	N	CV, RB, CB	—	S~~E~~	II	(5) c, (5) i, (5) j
F REACTOR SERVICING EQUIPMENT						
F11 Fuel Servicing Equipment						
1. Fuel Preparation Machine	N	FB	—	~~B~~S	I	(5) a
2. New Fuel Inspection Stand	N	FB	—	~~E~~S	II	(5) c
3. All Other Equipment	N	FB, RB	—	~~E~~N	NS	
F12 Miscellaneous Servicing Equipment	N	FB, RB	—	~~E~~N	NS	
F13 Reactor Pressure Vessel Servicing Equipment						
1. RPV head holding pedestal	N	RB	—	S~~E~~	I	(5) c
2. All other RPV servicing equipment	N	RB	—	~~E~~N	NS	
F14 RPV Internal Servicing Equipment	N	RB	—	~~E~~N	NS	
F15 Refueling Equipment						
1. Fuel Handling Machine	N	FB	—	~~B~~S	I	(5) a
2. Refueling Machine	N	RB	—	S~~B~~	I	(5) a
3. (Deleted)						
F16 Fuel Storage ~~Facility~~Racks						
1. Fuel storage racks - new and spent	N	RB, FB	—	~~E~~S	I	(5) a
F17 Under-RPV Servicing Equipment	N	CV	—	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~A~~ Req. Class[5]	Seismic Category[6]	Notes
F21 CRD Maintenance Facility	N	~~R~~FB	—	~~E~~N	NS	
F32 Fuel Cask Cleaning Facility	N	FB	—	~~E~~N	NS	
F41 Plant Startup and Test Equipment	N	CV, RB, CB, TB, FB	—	~~E~~N	NS	
F42 Fuel Transfer System (FTS)						
1. Transfer tube assembly from interface with upper fuel pool, through building to lower spent fuel pool terminus equipment, including drain connection	N	RB, FB	D	S~~B~~	I	(5) a
2. Remaining equipment	N	RB, FB	D/—	S / N~~E~~	II/NS	(5) c See Figure 9.1-2 for clarification of seismic classification boundaries. Seismic Category II items are Quality Class S.
G DECAY HEAT REMOVAL NETWORK						
G21 Fuel and Auxiliary Pools Cooling System (FAPCS)						
1. Piping and valves including supports between containment isolation valves (including valves) for – Suppression pool return line – GDCS pool suction line – GDCS pool return line – Drywell spray discharge line	2	CV, RB	B	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
2. Piping between inboard manual valve and second outboard containment isolation valve on suppression pool suction line, as well as the low pressure coolant injection (LPCI) piping between the RWCU/SDC interface and the second isolation valve.	2	CV, RB	B	Q~~B~~	I	
3. Independent line (including piping, valves, and supports) for safety-related makeup to IC/PCCS and spent fuel pools from piping connections at grade level in reactor yard area and to the fire protection system.	3	OO, RB, FB	C	Q~~B~~	I	
4. GDCS pool interconnecting pipes	3	CV	C	Q~~B~~	I	
5. Piping and components outside containment needed for fuel pool cooling, suppression pool cooling, LPCI and drywell spray modes of operation including skimmer lines and all components in the cooling and cleanup trains.	N	RB, FB	B	S~~E~~	II	(5) b, (5) c, (5) i – for RTNSS equipment
6. Suppression pool suction line inside containment between inboard manual valve and its termination point (including suction strainers)	N	CV	C	S~~E~~	I	(5) b, (5) c, (5) i – for RTNSS equipment

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
7. Piping and valves inside containment between inboard containment isolation valves and their termination points inside containment for: – Suppression pool return line – Drywell spray discharge line	N	CV	C	S~~E~~	I	(5) b, (5) c, (5) i – for RTNSS equipment
8. Piping and valves inside containment between inboard containment isolation valves and their termination points inside containment for: – GDCS pool suction line – GDCS pool return line	N	CV	D	S~~E~~	II	(5) c
9. IC/PCCS pools active cooling and cleanup subsystem piping, and components.	N	RB	D	S~~E~~	II	(5) c
10. Auxiliary pools skimmer lines, and auxiliary pool return lines between isolation valves and terminus points.	N	RB	D	N~~E~~	NS	
11. Instrument sensing lines for the following parameters – IC/PCCS pool water level – Spent fuel pool level	3	RB	C	Q~~B~~	I	
12. Electrical modules and cables with safety-related function (containment isolation, LPCI isolation)	3	RB, CB, CV, FB	—	Q~~B~~	I	
13. Electrical modules and cables with Nonsafety-Related function	N	RB, CB, FB	—	S~~E~~	II	(5) c, (5) i, (5) j – for RTNSS equipment

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
14. Control and instrumentation required for safety-related functions	3	RB, CB	—	Q~~E~~	I	
15. Controls and instrumentation required for nonsafety-related functions	N	RB, FB, CB	—	S~~E~~	II	(5) c, (5) i, (5) j – for RTNSS equipment
G31 Reactor Water Cleanup/Shutdown Cooling (RWCU/SDC) System						
1. Piping including supports and valves within and including outermost containment isolation valves on pump suction	1	CV, RB	A	Q~~B~~	I	(7)
2. Piping including supports and valves from feedwater lines to and including shutoff valves	2	RB	B	Q~~B~~	I	(7) RWCU/SDC piping classification is consistent with piping to which it connects.
3. Vessels including supports (demineralizer)	N	RB	C	S~~E~~	I	(5) b, (5) c
4. Regenerative heat exchangers (including supports) carrying reactor water	N	RB	C	S~~E~~	I	(5) b, (5) c
5. Cleanup recirculation pump, motors	N	RB	C	S~~E~~	I	(5) b, (5) c
6. Other piping including supports and valves between containment isolation valves and shutoff valves at feedwater line connections	N	RB	C	S~~E~~	I	(5) b, (5) c, (7)
7. Nonregenerative heat exchanger tube side and piping (including supports and valves) carrying process water	N	RB	C	S~~E~~	I	(5) b, (5) c

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
8. Nonregenerative heat exchanger shell and piping (including supports and valves) carrying cooling water	N	RB	D	S~~E~~	I	(5) c
9. Sample station	N	RB	D	S~~E~~	I	(5) c
10. Electrical modules, ~~and~~ cable and instrumentation with safety-related function	3	RB, CB	—	Q~~B~~	I	
11. Electrical modules, ~~and~~ cable and instrumentation with no safety-related function	N	RB, CB	—	S~~E~~	II	(5) c, (5) j
12. Overboard line piping outside reactor building	N	TB	C	S~~E~~	II	(5) b, (5) c
13. Cross-tie piping including supports and valves to/from FAPCS for post-accident containment heat removal	N	RB	C	S~~E~~	II	(5) b, (5) c
14. Cross-tie piping including supports and valves for post-accident return flow to mid vessel suction line	N	RB	C	S~~E~~	II	(5) b, (5) c
H CONTROL PANELS						
H11 Main Control Room Panels						
1. Panels, electrical modules, and cable with safety-related function	3	CB	—	Q~~B~~	I	**Control Panels** — Panels and associated structures that support or house safety-related mechanical or electrical components are safety-related.
2. Panels, electrical modules, and cable with no safety-related function	N	CB	—	S~~E~~	II	(5) c

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
H12 MCR Back Room Panels						
1. Panels, electrical modules, and cable with safety-related function	3	CB	—	Q~~B~~	I	**Control Panels** — Panels and associated structures that support or house safety-related mechanical or electrical components are safety-related.
2. Panels, electrical modules, and cable with no safety-related function	N	CB	—	S~~E~~	II	(5) c
H14 Radwaste Control Room Panels	N	RW	—	S~~E~~	NS	(5) d ~~**Radwaste Management Systems** – A quality assurance program meeting the guidance of NRC Regulatory Guide 1.143 is applied to radioactive waste management systems during design and construction.~~
H21 Local Panels and Racks						
1. Panels, electrical modules, and cable with safety-related function	3	ALL	—	Q~~B~~	I	**Control Panels** – Panels and associated structures that support or house safety-related mechanical or electrical components are safety-related.
2. Panels, electrical modules, and cable with no safety-related function	N	ALL	—	N~~E~~	NS	
J NUCLEAR FUEL						
J10 Core and Fuel Services	No physical items to be classified					
J11 Nuclear Fuel	3	CV, RB, FB	—	Q~~B~~	I	Nuclear fuel and channels are designed in accordance with NRC-approved methodology as described in chapters 4, 15 and Reference 15.0-2.

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
J12 Fuel Channel	3	CV, RB, FB	—	Q~~B~~	I	See note for J11.
K RADIOACTIVE WASTE MANAGEMENT SYSTEMS						
K10 Liquid Waste Management System (LWMS)						
1. Mechanical modules (including supports)	N	RB, RW	D ~~(see note)~~	S~~E~~	NS	(5) d ~~**Radwaste Management Systems** – A quality assurance program meeting the guidance of Regulatory Guide 1.143, as applied to radioactive waste management systems, is described in Chapter 17. The Radioactive Waste Management System components conform to Regulatory Guide 1.143 Table 1. For radwaste processing systems, Regulatory Guide 1.143 Table 1 modifies Regulatory Guide 1.26 Table 1 Quality Group D. This modification is acceptable per Standard Review Plan 3.2.2 Appendix C Note (9). Applicable portions of Regulatory Guide 1.143 Table 1 are reprinted in Chapter 11 Table 11.2-1.~~
2. Electrical modules and cabling	N	RB, RW	~~(see note)~~	S~~E~~	NS	(5) d~~Same as above.~~
K20 Solid Waste Management System (SWMS)						
1. Mechanical modules (including supports)	N	RB, RW	D ~~(see note)~~	S~~E~~	NS	(5) d~~See note for K10 item 1.~~

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
2. Electrical modules and cabling	N	RB, RW	— ~~(see note)~~	S~~E~~	NS	(5) d~~See note for K10 item 1.~~
K30 Offgas System (OGS)	N	TB	D ~~(see note)~~	S~~E~~	NS	(5) d~~**Offgas System** See note for K10 item 1.~~
N POWER CYCLE SYSTEMS						
N11 Turbine Main Steam System (TMSS)						
1. TMSS consists of the piping (including supports) for the MSL from the seismic interface restraint (or seismic guide) to the turbine stop valves (TSVs), turbine bypass valves and the connecting branch lines up to and including their isolation valves.	N	TB	B	S~~B~~	II	(5) a **Main Steamlines** – TMSS lines are designed to ASME Section III Code, Class 2. Lines smaller than 63.5 mm (2.5 inches) are NS. Also see Figure 3.2-1.
2. Other mechanical and electrical modules	N	TB	D	N~~E~~	NS	
N21 Condensate and Feedwater System (C&FS)						
1. Main feedwater line beyond seismic interface restraint	N	TB	D	N~~E~~	NS	See Figure 3.2-2
2. Electrical modules, cable and instrumentation associated with diverse protection functions	N	TB	—	S	NS	(5) j
N22 Heater Drain and Vent System (HDVS)	N	TB	—	N~~E~~	NS	
N25 Condensate Purification System (CPS)	N	TB	D	N~~E~~	NS	
N31 Main Turbine						

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
1. TSVs, turbine control valves (TCVs) and main steam leads from the TSVs to the turbine casing	N	TB	D	N~~E~~	NS	(9)
2. All other system components	N	TB	—	N~~E~~	NS	
N32 Turbine Generator Control System (TGCS)	~~N~~	~~TB~~	~~—~~	~~E~~	~~NS~~	
1. Electrical modules and cables associated with diverse protection functions	N	TB	—	S	NS	(5) j
2. All other components	N	TB	—	N	NS	
N33 Turbine Gland Seal System (TGSS)	N	TB	D	N~~E~~	NS	
N34 Turbine Lube Oil System (TLOS)	N	TB	—	N~~E~~	NS	
N35 Moisture Separator Reheater (MSR)	N	TB	—	N~~E~~	NS	
N36 Extraction System	N	TB	—	N~~E~~	NS	
N37 Turbine Bypass System (TBS)	N	TB	D	S~~E~~	II	(5) c TMSS lines up to the turbine bypass valves are designed to ASME Section III Code, Class 2. Lines smaller than 63.5 mm (2.5 inches) are NS. Also see Figure 3.2-1.
N38 Turbine Hydraulics	N	TB	—	N~~E~~	NS	
N39 Turbine Auxiliary Steam System (TASS)	N	TB	—	N~~E~~	NS	
N41 Generator	N	TB	—	N~~E~~	NS	
N42 Hydrogen Gas Control System (HGCS)	N	TB	—	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
N43 Stator Cooling Water System (SCWS)	N	TB	—	N~~E~~	NS	
N44 Generator Lube and Seal Oil System (GLSOS)	N	TB	—	N~~E~~	NS	
N45 Hydrogen and Carbon Dioxide Bulk Gas Storage System	N	OO	—	N~~E~~	NS	
N51 Generator Excitation System (GES)	N	TB	—	N~~E~~	NS	
N61 Main Condenser and Auxiliaries						See Figure 3.2-1.
1. Condenser anchorage	N	TB	—	S~~E~~	NS (see note)	(5) c The condenser anchorage is seismically analyzed for SSE.
2. Condenser air removal system	N	TB	D	N~~E~~	NS	
3. All other main condenser and auxiliaries components	N	TB	—	N~~E~~	NS	
N71 Circulating Water System (CIRC)	N	TB, OO	D	N~~E~~	NS	
P STATION AUXILIARY SYSTEMS						
P10 Makeup Water System (MWS)						
1. Piping and valves (including supports) forming part of the containment boundary	2	CV, RB	B	Q~~B~~	I	
2. Piping and valves inside containment or inside Reactor Building	N	CV, RB	D	S~~E~~	II	(5) c
3. Other mechanical and electrical modules	N	OO, RW, RB, CB, SF	D	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
P21 Reactor Component Cooling Water System (RCCWS)						
1. Piping and valves inside Reactor Building	N	RB	D	S~~E~~	II	(5) c, (5) i
2. Other mechanical and electrical modules	N	TB, RB, FB, EB	D	S / N~~E~~	NS	(5) i – for RTNSS equipment
P22 Turbine Component Cooling Water System (TCCWS)	N	TB	D	N~~E~~	NS	
P25 Chilled Water System (CWS)						
1. Piping and valves (including supports) forming part of the containment boundary	2	CV, RB	B	Q~~B~~	I	
2. Piping and valves inside containment and Reactor Building	N	CV, RB	D	S~~E~~	II	(5) c, (5) i
3. Other mechanical and electrical modules	N	TB, RB, CB, FB, EB, RW	D	S / N~~E~~	NS	(5) i – for RTNSS equipment
P30 Condensate Storage and Transfer System (CS&TS)						
1. Mechanical modules, including piping and valves, in Reactor Building	N	RB	D	S~~E~~	II	(5) c
2. Other mechanical modules, including piping, valves, and condensate storage tank	N	OO, RW, TB	D	N~~E~~	NS	
3. Electrical modules and cable	N	RB	—	N~~E~~	NS	
P32 Oxygen Injection System (OIS)	N	TB	—	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality A Req. Class[5]	Seismic Category[6]	Notes
P33 Process Sampling System (PSS)	N	RB, OO, TB, RW	D	NE	NS	(7)
P41 Plant Service Water System (PSWS)						
1. Mechanical and electrical modules, including piping and valves (including supports)	N	SF, OO, TB	D	S / NE	NS	(5) i – for RTNSS equipment
P51 Service Air System (SAS)						
1. Piping and valves (including supports) forming part of the containment boundary	2	CV, RB	B	QB	I	
2. Other system components	N	ALL	D	NE	NS	
P52 Instrument Air System (IAS)	N	ALL	D	NE	NS	
P54 High Pressure Nitrogen Supply System (HPNSS)						
1. Piping and valves (including supports) forming part of the containment boundary	2	CV, RB	B	QB	I	
2. Other Nonsafety-Related mechanical modules	N	RB	D	NE	NS	
3. Other Nonsafety-Related electrical modules	N	RB, CB	—	NE	NS	
4. Nitrogen storage bottles	N	RB	—	NE	NS	
P62 Auxiliary Boiler System (ABS)	N	OL	—	NE	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
P73 Hydrogen Water Chemistry System	N	TB	—	N~~E~~	NS	The ESBWR Standard Plant design includes the capability to connect a Hydrogen Water Chemistry System, but the system itself is not part of the ESBWR Standard Plant design.
P74 Zinc Injection System	N	TB	D	N~~E~~	NS	The ESBWR Standard Plant design includes the capability to connect a Zinc Injection System, but the system itself is not part of the ESBWR Standard Plant design.
R STATION ELECTRICAL SYSTEMS						
R10 Electrical Power Distribution System (EPDS)						
1. Main transformers	N	OO	—	N~~E~~	NS	
2. Main generators	N	TB	—	N~~E~~	NS	
3. Reserve and unit auxiliary transformers	N	OO	—	N~~E~~	NS	
4. Isolated phase bus duct	N	OO, TB	—	N~~E~~	NS	
5. Non-segregated bus duct	N	OO, EB	—	N~~E~~	NS	
6. Metal clad switchgear	N	RB, EB, TB, OL	—	N~~E~~	NS	
7. Power centers	N	RB, EB, FB, TB, OL	—	N~~E~~	NS	
8. Motor control centers	N	RB, EB, FB, CB, TB, OL	—	N~~E~~	NS	
9. Cable and supports with safety-related function	3	RB, FB, CB	—	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
10. Other cable and supports with no safety function	N	CV, CB, RB, EB, TB, OL	—	N~~E~~	NS	
R11 Medium Voltage Distribution System						
1. (Deleted)~~Medium voltage components required to protect containment from overpressure during a feedwater line break~~	~~3~~	~~TB~~	~~—~~	~~B~~	~~I~~	
2. ~~Other m~~Medium voltage components	N	EB	—	S / N~~E~~	NS	(5) h, (5) i – for RTNSS equipment
R12 Low Voltage Distribution System						
1. Components supporting distribution of power from Ancillary Diesel Generators	N	OO, RB, EB	—	S~~E~~	II	(5) c
2. All other components	N	ALL	—	S / N~~E~~	NS	(5) h, (5) i – for RTNSS equipment
R13 Uninterruptible AC Power Supply						
1. Electrical modules and cable with safety-related function	3	CV, CB, RB	—	Q~~B~~	I	
2. Other electrical modules and cable with no safety function	N	CV, RB, CB, EB, TB, OL	—	S / N~~E~~	NS	(5) h, (5) i – for RTNSS equipment
(Deleted)						
R15 Lighting and Servicing Power Supply						
1. Lighting	N	ALL	—	N~~E~~	NS	Components of the lighting systems associated with safety-related systems are supported to Seismic Category I requirements.

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
2. Emergency lighting in control room	N	CB	—	S~~E~~	I	(5) c, (5) h Safety-related power is provided through isolation devices. The seismic classification applies to the supports for the lighting fixtures, not to the bulbs and fixtures.
R16 Direct Current Power Supply						
1. Electrical modules and cable with safety-related function	3	RB, CV, CB, TB	—	Q~~B~~	I	
2. Other electrical modules and cable with no safety function	N	EB, CV, CB, RB, TB, OO	—	S / N~~E~~	NS	(5) h, (5) i – for RTNSS equipment
R21 Standby AC Power Supply						
1. Ancillary diesel generators and their support equipment	N	OO	—	S~~E~~	II	(5) c, (5) h
2. Other system equipment	N	EB	—	S / N~~E~~	NS	(5) i – for RTNSS equipment
R31 Raceway System						
1. Conduit, cable trays and supports with safety-related function	3	CV, CB, RB, FB, TB	—	Q~~B~~	I	
2. Other electrical modules with no safety function	N	CV, CB, RB, EB, TB, OL	—	S / N~~E~~	NS	(5) h, (5) i – for RTNSS equipment
3. Electrical penetrations	3	CV, RB	—	Q~~B~~	I	
R41 Plant Grounding System	N~~3~~	OO	—	N~~B~~	NS~~I~~	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
R51 Communication System	N	ALL	—	S / N~~E~~	NS	(5) c System components are mounted to Seismic Category II requirements in safety-related areas.
S POWER TRANSMISSION SYSTEMS						
S21 Switch Yard	N	OO	—	N~~E~~	NS	
T CONTAINMENT AND ENVIRONMENTAL CONTROL SYSTEMS						
T10 Containment System						
1. Upper and lower drywell airlocks and equipment hatches, wetwell access hatch, and safety-related instrumentation	2	CV	B	Q~~B~~	I	
2. Wetwell/drywell vacuum breakers	2	CV	B	Q~~B~~	I	
3. Vacuum Breaker “Closed” Proximity Instrumentation	3	CV	—	Q~~B~~	I	
4. Vacuum Breaker “Open” Proximity Instrumentation.	3	CV	—	Q~~B~~	I	
5. Vacuum Breaker Isolation Valves	2	CV	B	Q~~B~~	I	
6. Refueling bellows	N	CV	—	S~~E~~	I	(5) c
7. Vacuum Breaker/Isolation Valve Temperature Sensor Instrumentation	3	CV	—	Q~~B~~	I	
8. BiMAC device	N	CV	—	S~~E~~	NS	(5) i
9. GDCS pool spillover pipes	N	CV	—	S~~E~~	II	(5) c
T11 Containment Vessel						
1. Drywell head	2	CV	B	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
2. Reinforced Concrete Containment Vessel (RCCV)	2	CV	B	Q~~B~~	I	
3. Reactor pedestal (Part of RCCV)	2	CV	B	Q~~B~~	I	
4. Portion of basemat under pedestal	2	CV	B	Q~~B~~	I	
T12 Containment Internal Structures						
1. Reactor vessel support brackets and stabilizer support	3	CV	—	Q~~B~~	I	
2. Support structures for safety-related piping, including supports and equipment	3	CV	—	Q~~B~~	I	
3. Reactor shield wall	3	CV	—	Q~~B~~	I	
4. Diaphragm floor	3	CV	—	Q~~B~~	I	
5. GDCS pools	3	CV	—	Q~~B~~	I	
6. Vent Wall	3	CV	—	Q~~B~~	I	
T15 Passive Containment Cooling System (PCCS)						
1. All components other than vent fans	2	CV	B	Q~~B~~	I	
2. Vent fans	N	CV	B	S~~E~~	II	(5) b, (5) c, (5) h
T31 Containment Inerting System						
1. Piping and valves (including supports) forming part of the containment boundary	2	RB	B	Q~~B~~	I	
2. Electrical modules and cables with safety-related function	3	RB, CB	—	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
3. Other mechanical modules (including nitrogen storage tanks, and vaporizers), piping, valves, and electrical modules and cables with no safety function	N	RB, OO	—	N~~E~~	NS	
4. Hardened containment vent line to RB/FB stack	N	RB	—	N	NS	
T41 Drywell Cooling System (DCS)	N	CV	—	S~~E~~	II	(5) c
T49 Passive Autocatalytic Recombiner System (PARS)	N	CV	—	S~~E~~	I	(5) c, (5) h
T62 Containment Monitoring System						
1. Mechanical components involved in containment isolation function	2	CV, RB	—	Q~~B~~	I	
2. Other safety-related portions of System	3	CV, RB, CB	—	Q~~B~~	I	
3. Electrical modules, cables and instrumentation supporting diverse protection functions	N	CV, RB, CB	—	S	II	(5) c, (5) j
4~~3~~. Other ~~N~~nonsafety-Related portions of system	N	CV, RB, CB	—	N~~E~~	NS	
T64 Environmental Monitoring System	N	OL	—	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
U STRUCTURES AND SERVICING SYSTEMS						
U31 Cranes, Hoists, and Elevators						
1. Reactor building cranes, fuel building crane	N	RB, FB	—	S~~B~~	I	(5) a **Cranes** — The reactor building and fuel building cranes are designed to maintain their position and hold up their loads under conditions of an SSE.
2. Upper and lower drywell servicing hoists and cranes	N	CV	—	S~~E~~	II	(5) c
3. Main steam tunnel servicing hoists and cranes	N	OL	—	S~~E~~	II	(5) c
4. Special service rooms hoists and cranes	N	RB, TB, FB, RW	—	S or N~~E~~	II or NS	(5) c Components must be seismic category II and Quality Class S if they can potentially damage safety-related equipment.
5. Elevators	N	RB, TB, FB, CB, RW, EB	—	N~~E~~	NS	
U36 Electrical Building HVAC	N	EB	—	S / N~~E~~	NS	(5) i – for RTNSS equipment
U37 Service Building HVAC	N	SB	—	N~~E~~	NS	
U38 Radwaste Building HVAC	N	RW	—	S~~E~~	NS	(5) d
U39 Turbine Building HVAC	N	TB	—	S / N~~E~~	NS	(5) i – for RTNSS equipment
U40 Reactor Building HVAC						
1. Building isolation dampers	3	RB	—	Q~~B~~	I	
2. Controls associated with the isolation dampers	3	RB	—	Q~~B~~	I	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
3. (Deleted)~~Hardened containment vent line to RB/FB stack~~	~~N~~	~~RB~~	~~—~~	~~E~~	~~NS~~	
4. Other system components	N	RB	—	S~~E~~	II	(5) c, (5) i – for RTNSS equipment
U41 Other Building HVAC	N	OL	—	N~~E~~	NS	
U42 Potable Water and Sanitary Waste System	N	CB, SB, EB, RB, OO	—	N~~E~~	NS	
U43 Fire Protection System (FPS)						
1. Non-seismic yard piping and valves including supports (includes secondary piping in Turbine and other Buildings supplied by yard piping)	N	OO, OL, TB, EB, RW, SB	D	S~~E~~	NS	(5) e ~~**Fire Protection System** — A quality assurance program meeting the guidance of NRC BTP SPLB 9.5-1 (NUREG-0800) is applied to the protection system. Also, special seismic qualification requirements are applied.~~
2. Seismic Category I piping and valves including supports providing source of makeup water to IC/PCCS and fuel pools	N	OO	D	S~~E~~	I	(5) c, (5) e, (5) h~~Same as above.~~
3. Seismic Category II piping and valves including supports (includes balance of primary piping and valves)	N	OO, RB, CB, FB	D	S~~E~~	II	(5) c, (5) e~~Same as above~~
4. Primary firewater storage tanks	N	OO	D	S~~E~~	I	(5) c, (5) e, (5) h~~Same as above.~~
5. Secondary firewater storage	N	OO	D	S~~E~~	NS	(5) e
6. Fire pump enclosure	N	OO	—	S~~E~~	I	(5) c, (5) e, (5) h Same as above.
7. Primary diesel-driven fire pump	N	OO	D	S~~E~~	I	(5) c, (5) e, (5) h~~Same as above.~~

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
8. Primary motor-driven fire pump and other primary pumps	N	OO	D	S~~E~~	II	(5) c, (5) e~~Same as above.~~
9. Primary diesel fire pump fuel tank	N	OO	—	S~~E~~	I	(5) c, (5) e, (5) h~~Same as above.~~
10. Other pumps and motors	N	OO	D	S~~E~~	NS	(5) e~~Same as above.~~
11. Electrical modules and cables for RB preaction sprinklers	N	RB	—	S~~E~~	NS	(5) e~~Same as above.~~
12. All other electrical modules and cables	N	ALL	—	S~~E~~	NS	(5) e~~Same as above.~~
13. CO_2 actuation modules	N	TB	—	S~~E~~	NS	(5) e~~Same as above.~~
14. Sprinklers	N	RB, TB, RW, SB, EB, OL	D	S~~E~~	NS	(5) e~~Same as above.~~
15. Foam, preaction or deluge	N	EB, TB, OO	—	S~~E~~	NS	(5) e~~Same as above.~~
U44 Sanitary Waste Discharge System	N	CB, SB, EB, RB, OO	—	N~~E~~	NS	
U50 Equipment and Floor Drain System						
1. Piping and valves forming part of the containment boundary	2	CV, RB	B	Q~~B~~	I	
2. Drain piping and valves, including supports, in Seismic Category I buildings	N	RB, FB	D	S~~E~~	II	(5) c
3. Drain piping and valves, including supports, in other buildings	N	ALL except RB, FB	D	~~E~~N	NS	
4. Other mechanical and electrical modules	N	ALL	—	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
U65 Other Building Structures						
1. Ancillary diesel generator building	N	OO	—	S~~E~~	II	(5) c, (5) h
2. Other buildings	N	OO, OL	—	~~E~~N	NS	
U66 Access Tunnel Structures	N	OL	—	S~~E~~	II	(5) c
U67 Radwaste Tunnel	N	OL	—	S~~E~~	NS	(5) d Structural acceptance and material criteria for the Radwaste Tunnel are in accordance with RG 1.143, Safety Classification RW-IIa.
U71 Reactor Building Structure						
1. Main building	3	RB	—	Q~~B~~	I	
2. Stair towers and elevator shafts	N	RB	—	S~~E~~	II	(5) c
U72 Turbine Building Structure	N	TB	—	S~~E~~	~~NS~~II	(5) c ~~NS structure with special seismic and tornado design considerations. See Subsections 3.3.2.3, 3.5.3.3 and 3.7.2.8.~~
U73 Control Building Structure						
1. Main building	3	CB	—	Q~~B~~	I	
2. Stair towers and elevator shaft	N	CB	—	S~~E~~	II	(5) c
U74 Radwaste Building Structure	N	RW	—	S~~E~~	NS	(5) d~~Radwaste Management Systems – A quality assurance program meeting the guidance of NRC Regulatory Guide 1.143, Category RW-IIa is applied to radioactive waste management systems.~~
U75 Service Building Structure	N	SB	—	S~~E~~	II	(5) c

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
U77 Control Building HVAC						
1. Ducts, valves, and dampers (including supports) supporting safety-related areas	3	CB	—	Q~~B~~	I	
2. Other ducts, valves and dampers (including supports)	N	CB	—	N~~E~~	NS	
3. Electrical modules and cable with safety-related function	3	CB	—	Q~~B~~	I	
4. Control Room air handling units and the air conditioning for their coils	N	CB	—	S~~E~~	II	(5) c, (5) h
5. Other Nonsafety-Related equipment	N	CB	—	N~~E~~	NS	
6. Emergency Filter Unit	3	CB	—	Q~~B~~	I	
7. Q-DCIS room coolers	N	CB	—	S~~E~~	II	(5) c, (5) h
U78 Cold Machine Shop	N	OO		N~~E~~	NS	
U80 Electrical Building Structure	N	EB	—	N~~E~~	NS	
U81 Seismic Monitoring System	N	ALL	—	N~~E~~	NS	
U84 Service Water Building Structure	N	SF	—	N~~E~~	NS	
U85 Service Water Building HVAC	N	SF	—	N~~E~~	NS	
U91 Administration Building Structure	N	OL	—	N~~E~~	NS	
U93 Training Center	N	OL	—	N~~E~~	NS	
U95 Hot Machine Shop	N	OO	—	N~~E~~	NS	
U97 Fuel Building Structure						
1. Main building	3	FB	—	~~B~~Q	I	
2. HVAC penthouse, stair towers and elevator shaft	N	FB	—	S~~E~~	II	(5) c

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
U98 Fuel Building HVAC						
1. Building isolation dampers	3	FB	—	Q~~B~~	I	
2. Ducting penetrating fuel building boundary	3	FB	—	Q~~B~~	I	
3. Controls associated with the isolation dampers	3	FB	—	Q~~B~~	I	
4. Other system components	N	FB	—	S~~E~~	II	(5) c, (5) i – for RTNSS equipment
(Deleted)						
W INTAKE STRUCTURE AND SERVICING EQUIPMENT						
W12 Intake and Discharge Structures	N	OO	—	N~~E~~	NS	
W24 Cooling Tower	N	OO	—	N~~E~~	NS	
W32 Screen Cleaning Facility	N	OO	—	N~~E~~	NS	
W33 Screens, Racks, and Rakes	N	OO	—	N~~E~~	NS	
W41 Intake Structure Power Supply	N	OO	—	N~~E~~	NS	
Y YARD STRUCTURES AND EQUIPMENT						
Y12 Roads and Walkways	N	OO	—	N~~E~~	NS	
Y21 Tanks and Equipment Pads	N	OO	—	N~~E~~	NS	Some tanks in the yard area belong to other systems (e.g., firewater storage tank in U43) and have different classifications.
Y41 Station Water System	N	OO	—	N~~E~~	NS	
Y46 Cathodic Protection System	N	OO	—	N~~E~~	NS	
Y47 Meteorological Observation System	N	OO	—	N~~E~~	NS	
Y51 Yard Miscellaneous Drain System	N	OO	—	N~~E~~	NS	

Table 3.2-1

Classification Summary

Principal Components[1]	Safety Class.[2]	Location[3]	Quality Group[4]	Quality ~~Req.~~ Class[5]	Seismic Category[6]	Notes
Y52 Oil Storage and Transfer System						
1. System components supporting operation of ancillary diesel generators	N	OO	—	S~~E~~	II	(5) c, (5) h
2. All other system components	N	OO	—	N~~E~~	NS	
Y53 Chemical Storage and Transfer System	N	OO	—	N~~E~~	NS	
Y71 Piping Duct	~~N~~	~~OL~~	~~—~~	~~E~~	~~NS~~	~~Typical classifications for piping ducts in the yard area.~~ Classification of individual piping ducts matches the highest classification of the pipe they carry.
1. Concrete Trench/Tunnel for Seismic Category I and II FPS Piping	N	OL	--	S	I/II	(5) c
2. Other Piping Duct	N	OL	--	N	NS	
Y72 Cable Duct	~~N~~	~~OL~~	~~—~~	~~E~~	~~NS~~	~~Typical classifications for cable ducts in the yard area.~~ Classification of individual cable ducts matches the highest classification of the cables they carry.
1. Concrete duct banks between RB and CB	3	OL	--	Q	I	
2. Concrete duct banks between ancillary diesel generator building and other structures	N	OL	--	S	II	(5) c
3. Other Cable Duct	N	OL	--	N	NS	
Y86 Site Security	N	ALL	—	N~~E~~	NS	

Notes:

(1) Principal components: A module is an assembly of interconnected components that constitute an identifiable device or piece of equipment. For example, electrical modules include sensors, power supplies, and signal processors; and mechanical modules include turbines, strainers, and orifices.

(2) Safety Class: 1, 2, 3 or N are designations for safety-related or nonsafety-related as discussed in Subsection 3.2.3.

(3) Location codes:

ALL	=	All locations			
CV	=	Containment Vessel	RW	=	Radwaste Building
CB	=	Control Building	CP	=	Circulating Water Pump House
RB	=	Reactor Building	SF	=	Service Water Building
OO	=	Outdoors Onsite	TB	=	Turbine Building
OL	=	Any Other Location	EB	=	Electrical Building
FB	=	Fuel Building	SB	=	Services Building

(4) Quality group classifications: A, B, C, or D are quality groups defined in Regulatory Guide 1.26, as discussed in Subsection 3.2.2. The principal components are classified, designed, and constructed in accordance with the requirements identified in Tables 3.2-2 and 3.2-3. The designation "—" indicates that the quality groups A through D are not applicable to the associated principal component.

(5) Quality Class~~assurance requirements~~: The designation "~~B~~Q" indicates that the quality assurance requirements of 10 CFR 50, Appendix B, are applied in accordance with the quality assurance program described in Chapter 17. The designation "S" indicates that special quality assurance requirements are applied, commensurate with the importance of the item's function for one or more of the following reasons:

a. Nonsafety-related SSCs for which 10 CFR 50 Appendix B quality assurance requirements are to be fully applied.

b. Nonsafety-related SSCs required to be designed in accordance with Quality Group B or C requirements from RG 1.26. See note (4).

c. Nonsafety-related SSCs required to be designed in accordance with special seismic design requirements, such as Seismic Category I or II requirements. See note (6).

d. Nonsafety-related SSCs required to be designed in accordance with Radioactive Waste Management requirements from RG 1.143 for Category RW-IIa (see Subsection 3.7.2.8.2 for further details on the design of the Radwaste Building and SSCs housed inside the Radwaste Building). A quality assurance program meeting the guidance of NRC Regulatory Guide 1.143, as applied to radioactive waste management systems, is described in Chapter 17. The Radioactive Waste Management System components conform to Regulatory Guide 1.143 Table 1. For radwaste processing systems, Regulatory Guide 1.143 Table 1 modifies Regulatory Guide 1.26

Table 1 Quality Group D. This modification is acceptable per Standard Review Plan 3.2.2 Appendix C Note (9). Applicable portions of Regulatory Guide 1.143 Table 1 are reprinted in Chapter 11 Table 11.2 1.

e. Nonsafety-related SSCs required to be designed in accordance with Fire Protection requirements from 10 CFR 50.48 and RG 1.189. A quality assurance program meeting the guidance of NRC Branch Technical Position SPLB 9.5-1 (NUREG-0800) is applied to the protection system. Also, special seismic qualification requirements are applied.

f. Nonsafety-related SSCs required to be designed in accordance with ATWS requirements from 10 CFR 50.62. A quality assurance program that meets or exceeds the guidance of NRC Generic Letter 85-06 is applied to all nonsafety-related ATWS equipment.

g. Nonsafety-related SSCs required to be designed in accordance with Station Blackout requirements from 10 CFR 50.63 and RG 1.155.

h. Nonsafety-related SSCs required to be designed in accordance with RTNSS Criterion B requirements as specified in Appendix 19A.

i. Nonsafety-related SSCs assigned to RTNSS criteria other than Criterion B that are required to be designed in accordance with RTNSS requirements as specified in Appendix 19A.

j. Nonsafety-related SSCs associated with the performance of Diverse I&C functions that are required to be designed in accordance with a quality assurance program that meets or exceeds the guidance of NRC Generic Letter 85-06 as specified in Subsection 7.8.3.

The designation "NE" indicates that standard nonsafety-related quality assurance requirements are applied~~, commensurate with the importance of the item's function~~. See Subsection 17.1.22 for further details.

(6) Seismic category: The designations "I" or "II" indicate that the design requirements of Seismic Category I or II structures and equipment are applied as described in Subsection 3.2.1 and Section 3.7, Seismic Design. Structures and equipment that are not designated "I" or "II" are designated "NS."

(7) Small Piping and Instrument Lines — Lines 25 mm (one inch) and smaller in diameter that are part of the RCPB are Quality Group B and meet the requirements of the ASME B&PV Code, Section III, Class 2 and Seismic Category I, with the exceptions noted below:

Instrument lines that are connected to the RCPB and are used to actuate or monitor safety-related systems are Quality Group B from the outer isolation valve or the process shutoff valve (root valve) to the sensing instrumentation. Instrument lines that are connected to the RCPB and are not used to actuate and monitor safety-related systems are nonsafety-related and Quality Group D from the outer isolation valve or the process shutoff valve (root valve) to the sensing instrumentation. Other instrument lines meet the following requirements:

- Through the root valve: the lines are the same classification as the system to which they are attached.
- Beyond the root valve, if used to actuate a safety-related system: the lines are the same classification as the system to which they are attached.
- Beyond the root valve, if not used to actuate a safety-related system: the lines may be Quality Group D.

Table 9.1-4

Classification of Equipment

Principal Component	Safety Class	Location	Quality~~A~~ ~~Requirement~~ Class	Seismic Category	Notes
Fuel Servicing Equipment					
1. Fuel Preparation machine		FB	S~~B~~	I	(1)
2. New Fuel Inspection Stand		FB	S~~E~~	II	
3. All other equipment		FB/RB	N~~E~~	NS	
Miscellaneous Servicing Equipment	N	FB/RB	N~~E~~	NS	
RPV Servicing Equipment	~~N~~	~~RB~~	~~E~~	~~NS/I~~	
1. RPV head holding pedestal	N	RB	N	I	
2. All other equipment	N	RB	N	NS	
RPV Internal Servicing Equipment	N	RB	N~~E~~	NS	

Table 9.1-4
Classification of Equipment
(Continued)

Principal Component	Safety Class	Location	Quality ~~Requirement~~ Class	Seismic Category	Notes
Refueling Equipment					
1. Fuel Handling machine	N	FB	S~~B~~	I	(1)
2. Refueling Machine	N	RB	S~~B~~	I	(1)
3. Deleted					
Fuel Storage ~~Facility~~Racks					
Fuel Storage Racks (new and spent)	N	FB/RB	S~~B~~	I	(1)
Under RPV Servicing Equipment	N	CV	N~~E~~	NS	
CRD Maintenance Facility	N	~~R~~FB	N~~E~~	NS	
Fuel Cask Cleaning Facility	N	FB	N~~E~~	NS	

Table 9.1-4
Classification of Equipment
(Continued)

Principal Component	Safety Class	Location	Quality ~~A Requirement~~ Class	Seismic Category	Notes
Fuel Transfer System	~~N~~	~~RB/FB~~	~~B~~	~~I/II/NS (see Figure 9.1-2)~~	
1. Transfer tube assembly from interface with upper fuel pool, through building to lower spent fuel pool terminus equipment, including drain connection	N	RB/FB	S	I	(1)
2. Remaining equipment	N	RB/FB	S / N	II/NS	(2)

Notes:

(1) Nonsafety-related SSCs for which 10 CFR 50 Appendix B quality assurance requirements are to be fully applied.

(2) See Figure 9.1-2 for clarification of seismic classification boundaries. Seismic Category II items are Quality Class S.