

Southern California Edison Company

SCE

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August 29, 1979

Director of Nuclear Reactor Regulation
Attention: Mr. D. L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

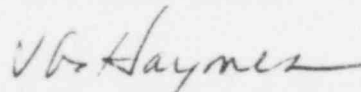
Gentlemen:

Subject: Docket No. 50-206
Systematic Evaluation Program
San Onofre Nuclear Generating Station
Unit 1

Southern California Edison (SCE) received informally from the NRC staff a draft of Table 3.1 from Systematic Evaluation Program Topic III-1, Classification of Structures, Components and Systems (Seismic and Quality) for review and comment. The table has been reviewed by SCE with respect to the available information regarding the design at San Onofre Unit 1 and revised as appropriate. A copy of the revised table is provided as an enclosure to this letter.

If you have any questions concerning this information, please contact me.

Very truly yours,



J. G. Haynes
Chief of Nuclear Engineering

Enclosure

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Reactor Coolant System</u>					
Reactor Vessel	ASME III Class 1	ASME VIII Cases 1270N, 1273N	Category I	Category A	
Steam Generator Pri. side	ASME III Class 1	ASME Boiler and Pressure Vessel Code Section VIII, par. U-1-3. Also Special Rulings 1270N, 1273N and 1274N	Category I	Category A	
Sec. side	ASME III Class 2	Unfired Pressure Vessel Safety Orders, State of California Tentative Structural Design Basis for Reactor Pressure Vessel and Directly Associated Com- ponents, PB 151987 nozzle stresses and fatigue conditions	Category I	Category A	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Pressurizer	ASME III Class 1	ASME Boiler and Pressure Vessel Code Section VIII, par. UG-31b - heater sheathes	Category I	Category A	
		ASME Boiler and Pressure Vessel Code Section VIII, Nuclear Code Case 1273N-4, par. 6(a) (2) and 6(a) (3) - instrumentation welded to inside wall of vessel			
Reactor Coolant Pumps	ASME III Class 1	USASI B 16.5 - injection and leakage control line flanges	Category I	Category A	Pressure boundary only
		ASME Boiler and Pressure Vessel Code Section VIII - guide for design of pressure con- taining parts			
		Casing will comply with ASME Boiler and Pressure Vessel Code Section VIII, par. P-299(a) and P-1(a)			

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Piping	ASME III Class 1	ASME Boiler and Pressure Vessel Code Section I except code stamp- ing is not per- mitted (cyclic loading per USASI B31.1) or ASME III	Category I	Category A	Note 1 and Dwg. M20-568768 FSAR Tables 2.12 & 9.2.
Pressurizer Relief Tank	ASME VIII	ASME VIII Case 1270-N	Non-seismic Category I	Category A	Note 2
Pressurizer Safety Valves RV-532, -533	ASME III Class 1	ASME I Class 1 ASME Code Case 1271-N	Category I	Category A	Dwg. No. M20-568766
Pressurizer Relief Valves CV-530, 531, 545, 546	ASME III Class 1	ASA B16.5 ASA B31.1-Code Case N-10 ASME Section VIII	Category I	Category A	Relief valves con- trolled by pneumatic air supply. Pressure boundary only.
Control Rod Drive Mech.	ASME III Class 1	ASME VIII	Category I	Category A	Ref. FSAR Table 9.2 Pressure boundary only.

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Reactor Vessel Internals and Fuel	N/A	ASME VIII (thermal shield)	Category 1	Category A	Per FSAR Table 9.2 it is assumed that control rod clusters are included
Aux. Pressurizer Spray Aux. Pressurizer Spray coolant cold legs					
piping	ASME III Class 1	ASA B31.1	Category 1	Category A	Notes 1 and 3 5011-3"-2501R 5025-3"-2501R
valves (body)	ASME III Class 2	ASA B16.5 ASA B31.1-Code Case N-10 ASME Section VII	Category I	Category A	FCV-430C and FCV-430H are air operated. Pressure boundary only. See Note 3.
Aux. spray from CVCS piping to and including valve CV-305	ASME III Class 1 (piping) Class 2 (valve)	ASA B31.1 (piping) ASA B16.5 (valve) ASA B31.1 - Code Case N-10 ASME Section VIII	Category I	Category A	Dwg. Nos. M20-568766 M20-568767 On loss of air CV-305 fails in closed position Note 3.
<u>Chemical and Volume</u>					
<u>Control System</u> (Note 3)					
Regenerative Heat Exchanger (Tube Side) (Shell Side)	ASME III Class 2 Class 1	ASME VIII Cases 1270N 1273N	Category I Category I	Category A Category A	Ref. Tables 2.13 and 9.2 of FSAR
Excess Letdown Heat Exchanger	ASME III Class 2 (tube side) NIS (shell side)	ASME VIII Cases 1270N 1273N	Category I	Category B	Shell side not Nuclear Safety grade. Ref. FSAR Table 2.13 and 9.2

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Seal Water Heat Exchanger	ASME III Class 2 (tube side) Class 3 (shell side)	ASME VIII Case 1270N (sec. vessel)	Category I	Category A	Ref. FSAR Table 2.13 and 9.2
Seal Water Filter	ASME III Class 2	ASME VIII Case 1270N (sec. vessel)	Category I	Category A	Reference FSAR Table 2.13 & 9.2
Seal Water Supply Filters	ASME III Class 2	ASME III Class C (vessel)	Category I	Category A	
Charging Pumps	ASME III Class 2	ASME VIII NEMA MG-1	Category I	Category A	
Test Pump	ASME III Class 3	Mfg. Std.* NEMA MG-1	Category I	Category A	*Based on ASME VIII
Piping, fittings, valves	ASME III Class 1 thru Class 3	ASA B31.1 (piping) B16.5 (valves)	_____	_____	Ref. FSAR Table 2.13

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Piping (loop A), letdown line via rej. IIX to and including air operated valves CV-202, -203, & -204	ASME III Class 1	ASA B31.1	Category I	_____	5008-2"-2501R 2071-2"-2501R Dwg. M20-568767
Piping (loop B), letdown line via excess letdown IIX to and including air operated valve HCV-1117	ASME III Class 2	ASA B31.1	Category I	_____	5014-3/4"-2501R 2074-3/4"-2501R Dwg. M20-568767
Piping downstream of valves CV-202, -203, and -204 to RHR line interface	ASME III Class 2	ASA B31.1	Category I	_____	2067-2"-2501R 2071-2"-2501R 2068-2"-2501R 2071-2"-601R Dwg. M20-568767
Piping downstream of RHR IIX thru valve TC- 1105, via RC filter to Volume Control Tank (VCT)	ASME III Class 2	ASA B31.1	Category I	_____	3001-6"-601R 3006-2"-601R 2036-31-151R Dwg. M20-568767
Piping from VCT to charging pumps	ASME III Class 2	ASA B31.1	Category I	_____	2000-4"-151R Dwg. M20-568767

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Emergency Core Cooling System (Note 4)</u> (Safety Injection System)					
Refueling Water Storage Tank	ASME III Class 2	AWWA D100 ACI-318-63 API Specs. 650	Category I	Category A	Ref. Dwg. No. M20-568769, FSAR Table 9.4
Safety Injection Pumps G-50-A, G-50-B	ASME III Class 2	NEMA MG-1 Mfg. Stds.	Category I	Category A	Ref. FSAR Table 9.2
Feedwater Pumps (G-3A, G-3B) (Located downstream of SI Pumps)	ASME III Class 2	Mfg. Stds. NEMA-MG-1	Category I	Category A	Req'd for Safety Injection.
Recirculation Pumps (G-45A, G-45B)	ASME III Class 2	ASME VIII NEMA-MG-1	Category I	Category A	FSAR Table 9.2
Recirculation Heat Exchanger	ASME III Class 2 (tube side) Class 3 (shell side)	ASME III Class C	Category I	Category A	
Charging Pumps	ASME III Class 2	ASME VIII NEMA-MG-1	Category I	Category A	See CVCS
Valves	ASME III Class 2	ASA B16.5	Category I	Category A	App. Item II of SCE letter 3/21/75.
Piping	ASME III Class 2	ASA B31.1	Category I	Category A	At discharge of feed- water pumps isol. line to condenser hotwell controlled by pneumatic valves CV-36 and -37

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Auxiliary Coolant System (Note 7)</u>					
Component Cooling Loop					Reference, FSAR pages 2-221 thru 2-240. Dwg. No. M20-568768
Component Cooling Heat Exchangers	ASME III Class 3	ASME VIII Case 1270N	Category I	Category A	
Component Cooling Pumps	ASME III Class 3	NEMA MG-1 Mfg. Stds.	Category I	Category A	
Component Cooling Surge Tank	ASME III Class 3	ASME VIII Case 1270N	Category I	Category A	
Piping to reactor coolant pump oil coolers and thermal barriers	ASME III Class 3	USASI B31.1 Sec. 1	Category I	Category A	Per FSAR footnote on page 2-231, USASI B31.1 code used "where applicable"
Piping to shield cooling coils	ASME III Class 3	ASA B31.1	Category I	_____	
Piping to charging pumps oil coolers	ASME III Class 3	ASA B31.1	Category I	Category A	
Charging pump oil coolers Air Cooler - Liquid Cooler -	ASME III Class 3	ASME VIII	Category I	_____	Ref. Appendix of SCE report dated March 21, 1975

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Piping up to and including isol. valves upstream and downstream of excess letdown IIX	ASME III Class 3	ASA B31.1	Category I	Category A	3056-14"-152N 3037-14"-152N
Piping to shell side of sample IIXs	ASME III Class 3	ASA B31.1	Non-Seismic Category I	Category B	3065-1 1/2"-152N FSAR Table 9.2 Valve 705-1-1/2"-G32 may have to be MOV.
Piping to shell side of sealwater IIX	ASME III Class 3	ASA B31.1	Category I	_____	3038-4"-152N
Piping to shell side of Residual IIXs and RHR pumps	ASME III Class 3	ASA B31.1	Category I	_____	
Piping to shell side of spent fuel pit IIX	ASME III Class 3	ASA B31.1	Category I		3045-6" - 152N
Piping to shell side Recirculation IIX	ASME III Class 3	ASA B31.1 Sect. 1	Category I	Category A	3103-6" - 152N
Piping to gas stripper condenser (up to valve 2"-600-34)	ASME III Class 3	ASA B31.1	Category I	_____	3091-2" - III
Valves MOV-720A, B; TCV-601A, B, located downstream of CGIX and RHR IIX, respectively	ASME III Class 3	ASA B16.5	Category I	Category A	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Spent Fuel Pit Cooling Loop (Note 5)					
Spent fuel pit pump	ASME III Class 3	Mfg. Stds. NEMA MG-1	Category I	Category B	
Piping, fittings, and valves including interfaces at Ion Exch., primary plant, refueling water storage tank	ASME III Class 3	ASA B31.1 (pipe) ASA B16.5 (valve)	Category I	Category B	Valves interfacing with non-safety related systems are ASA B16.5
Spent fuel pit filter	ASME III Class 3	Mfg. Std.	Category I	Category B	
Spent fuel pit heat exchanger	ASME III Class 3	ASME VIII Case 1270N	Category I	Category B	
Residual Heat Removal Loop (Note 6)					
Residual Heat Exchanger	ASME III Class 2 (tube side) Class 3 (shell side)	ASME VIII Case 1270N	Category I	Category A	
Residual Heat Removal Pumps (G-14A and G-14B)	ASME III Class 2	ASME VIII IEEE 344 (71/75)	Category I	Category A	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Residual Heat Removal Piping, Valves, Fittings, (e.g. valves MOV-813, 814 MOV-822A,B MOV-833, 834 HCV-602)	ASME III Class 2 Class 1 from (& including) MOV 813, 814, 833, 834 to loop A and C	ASA B31.1 (pipe) ASA B16.5 (valve)	Category I	Category A	
<u>Circulating Water System (Note 7)</u>					
Saltwater Cooling Pumps 21 IB01 (G13A) 21 IB02 (G13B)	ASME III Class 3	Mfg. Std.	Category I	Category A	Ref. Dwg. No. M20- 568775 and FSAR Table 9.4.
Saltwater Supply Piping and Valves to Component Cooling Heat Exchangers	ASME III Class 3	ASA B31.1 (piping) AWWA C50A 58 1958 (valves)	Category I	Category A	Discharge Valves POV-5 and -6 are air-operated 415-12"-KPI
<u>Containment Sphere Spray (Note 4) System</u>					
Refueling Water Pumps	ASME III Class 2	Mfg. Stds. NEMA MG-1	Category I		Dwg. No. M20-568776 & M20-568769

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Piping from RWST to Refueling Water Pumps	ASME III Class 2	ASA B31.1	Category I	_____	729-8"-HP
Piping and air operated valves downstream of Refueling Water Pumps	ASME III Class 2	ANSI B31.1 (piping) Mfg. Stds. (valves)	Category I	_____	Discharge air operated valves fail open 734-6"-HP CV-82 & CV-114
<u>Chemical Addition System (Note 4)</u>					
Hydrazine (N ₂ H ₄) Tank	ASME III Class 2	ASME III Class 2	Category I	Category A	This system is interfaced with the containment sphere spray system
Spray Additive Pumps (G-200A & B)	ASME III Class 2	ASME III Class 2	Category I	Category A	
Piping and valves excluding recirculation lines and test lines	ASME III Class 2	ASME III Class 2 & ANSI B31.1	Category I	Category A	1151-3/4"-CM 1152-3/4"-CM SV-600 & CV-601
<u>Containment Purge System (Note 4)</u>					
Fans, air ducting, and control valves outside containment	AISC-59 IEEE-344 (71/75)	Mfg. Stds.	Category I	_____	Containment purge interfaced with sphere cooling units inside containment.
Air ducting, control valves for containment isolation	ASME III Class 3	Mfg. Stds.	Category I	_____	Dwg. No. M20-568782 and FSAR page 3-71

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Ventilation System for Control Room</u>					
Emergency air supply unit (HEPA, charcoal filter, fan)	AISC 69 IEEE 344 (71/75)	Mfg. Stds.	Category I	_____	
<u>Auxiliary Feedwater System</u>					
Auxiliary Feedwater Pumps	ASME III Class 3	Mfg. Stds.	Category I	Category B	Ref. Dwg. No. M20-568779 and FSAR pages 3-21 and -22. Aux. F.W. System is manually initiated
Pump Motor	IEEE-344 71/75	NEMA-MG1	Category I	_____	
Pump Steam Turbine	ASME III-3	Mfg. Stds.	Category I	_____	
Piping from Aux. Feed pumps and including containment isol. valves to connections with feedwater system lines	ASME III Class 3	ASA B31.1 (piping) ASA B16.5 (valves)	Category I	_____	381-3"-EG 381A-3"-EG 397-3"-EG
<u>Feedwater System</u>					
Piping inside containment and outside up to and including valves FCV 456, 457, 458; CV 142, 143, 144 and 2"-600-135	ASME III Class 2	ASA B16.5 (valves) ASME I (piping inside containment)	Category I	_____	M20-568779-21 391-10"-EG 392-10"-EG 393-10"-EG

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Piping from valves IV-852 A, B to IV-854 A, B	ASME III Class 2	ASA B31.1	Category I	_____	319-12"-EG 317-16"-EG 318-14"-GG 320-12"-GG
Feedwater Pumps (G-3A, G-3B)	ASME III Class 2	Mfg. Stds. NEMA-MG-1	Category I	Category A	See sheet 7
Hydraulic System for valves IV-852 A, B IV-854 A, B	N/A	ASME III-2 (pressure boundary)	Category I	Category A	
<u>Main Steam System</u>					
Main Steam Safety Valves (RV1 thru RV10)	ASME III Class 2	ASME VIII	Category I	_____	Ref. FSAR page 3-18 Dwg. No. M20-568773
Steam Dump Valves (CV-76, -77, -78, -79)	ASME III Class 2	Mfg. Stds.	Category I	_____	Dump valves have air accumulators for one cycle but actuated from air supply line
Piping from steam generators to and including the main stop valves	ASME III Class 2	ASME I	Category I	Category A	Ref. FSAR page 3-19 Appendix of SCE letter dated March 21, 1975
Piping and valves from main steam line including 3"-600-129	ASME III Class 2	ASA B31.1 (piping)	Category I	_____	69-3"-EG (pipe)
Piping from 3"-600-129 to Aux. Feedwater Pump Turbine	ASME III Class 3	ASA B31.1 (piping) ASA _____ (valves)	Category I	_____	69-3"-EG

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Compressed Air System</u>					
Air Compressors	Quality Group D	Mfg. Std.	Non-Seismic Category I	Non-seismic Category A	
After coolers	Quality Group D	Mfg. Std.	Non-Seismic Category I	Non-seismic Category A	
Air Receivers	Quality Group D	ASME VIII	Non-Seismic Category I	Non-seismic Category A	
Emergency air compressor with receiver (K-12)	Quality Group D	Mfg. Std. (compressor) ASME VIII (receiver)	Non-Seismic Category I	Non-seismic Category A	
Instrument Air Dryer	Quality Group D	Mfg. Std.	Non-Seismic Category I	Non-seismic Category A	
Instrument Air Header loop and filters	Quality Group D	Mfg. Std. (filters) ASA B16.5 (SR valves) ASA 931.1 (SR piping)	Non-Seismic Category I	Non-seismic Category A	
<u>Diesel Generator</u>					
Diesel Motor	_____	_____	Category I	Category A	Info below is for Diesel Unit 1, but it applies to Diesel Unit 2 also.
Generator	_____	_____	Category I	_____	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Diesel Generator Fuel Oil Storage and Supply System</u>					
Diesel Fuel Oil Storage Tank (D-23)	ASME III Class 3	ASME III Class 3	Category I	Category A	Ref. Dwg. No. M20-5154026. Info below is for Diesel Unit 1, but it applies to Diesel Unit 2 also. Tank located underground
Diesel Fuel Oil Transfer Pumps (G-74A & B)	ASME III Class 3	ASME III Class 3	Category I	Category A	
Fuel Oil Filters (C-21A, C-21B)	ASME III Class 3	ASME III Class 3	Category I	Category A	
Fuel Oil Day Tank (D-14)	ASME III Class 3	ASME VIII	Category I	Category A	
Piping and valves from F.O. Storage Tank to F.O. Day Tank	ASME III Class 3	ASME III Class 3	Category I	Category A	Ref. Dwg. No. M20-5154026. Tank located in Diesel Bldg. Area 16
Fuel Oil Pumps (G-42 engine driven) (G-76 motor driven)	ASME III Class 3	ASME VIII IEEE 344-71 (G-76)	Category I	Category A	
Fuel Oil piping and Valves from Day Tank to Diesel Fuel Storage Tank	ASME III Class 3	ASME III	Category I	Category A	Ref. Dwg. No. M20-5154026
<u>Diesel Generator Lube Oil System</u>					
Lube Oil Cooler (E-10), Shell Side	ASME III Class 3	ASME VIII IEEE 344 (71/75)	Category I	Category A	Ref. Dwg. No. M20-5154027 Info below is for Diesel Unit 1, but it also applies for Diesel Unit 2.

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Duplex L.O. Filters	ASME III Class 3	ASME VIII	Category I	Category A	
L.O. Strainer	ASME III Class 3	ASME VIII	Category I	Category A	
L.O. Pump (Engine Driven) (Standby Motor)	ASME III Class 3	Mfg. Std. IEEE-344-71 (motor)	Category I	Category A	
Piping and Valves	ASME III Class 3	ANSI B31.1	Category I	Category A	
<u>Diesel Generator Cooling Water System</u>					
Cooling Water Heat Exchanger (E-5)	ASME III Class 3	ASME VIII	Category I	Category A	Ref. Dwg. No. M20- 5154028 Info below is for Diesel Unit 1, but also applies to Diesel Unit 2.
Expansion Tank (D-27)	ASME III Class 3	ASME VIII	Category I	Category A	
Cooling Water Pump (G-16) (Engine Driven)	ASME III Class 3	Mfg. Std.	Category I	Category A	
Piping and Valves	ASME III Class 3	ANSI B31.1	Category I	Category A	
<u>Diesel Generator Starting Air System</u>					
Starting Air Storage Tanks (C-13A, C-13B)	ASME III Class 3	ASME VIII	Category I	Category A	Ref. Dw. No. M20- 5154029. Info is for Diesel Unit 1, but also applies to Diesel Unit 2.
Piping and Valves	ASME III Class 3	ANSI B31.1	Category I	Category A	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Diesel Generator Combustion</u>					
<u>Air Intake - Exhaust and</u>					
<u>Control Air System</u>					
Air Intake Filters	ASME III Class 3	Mfg. Std.	Category I	Category A	Ref. Dwg. No. M20-7154230. Info is for Diesel Unit 1, but also applies to Diesel Unit 2
Air Intake Silencers	ASME III Class 3	ASME VIII	Category I	Category A	
Piping	ASME III Class 3	ANSI B31.1	Category I	Category A	
<u>Reactor Coolant Sampling</u>					
<u>System (Pressure Boundary Only)</u>					
Piping, Tubing and Valves from Reactor Coolant Loops B&C, and Pressurizer Sampling up to and including first isolation valve within sample room	ASME III Class 2	ASA B31.1 (piping) ASA B16.5 (valves)	Category I	Category A	Ref. Dwg. No. M20-568770 and FSAR pages 2-241 thru 2-246 Isol. valves (CV-992 & CV-957) close on air failure.
Sample line with associated valves originating downstream of Residual Heat Exchanger up to and including first isolation valve within sample room.	ASME III Class 2	ASA B31.1 (piping) ASA B16.5 (valves)	Category I	Category A	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Radioactive Waste Disposal System (Note 8)</u>					
(Gaseous and Liquid Radwaste System only)					
Waste Gas Decay Tanks	NNS ASME III Class 3	ASME III ASME VIII	Non-Seismic Category I, but designed for OBE*	Category A	Ref. FSAR Table 9.4 *Quality Group and Seismic classification based on Branch Tech Position ETSB No. 11-1 (Rev. 1) and Reg. Guide 1.26. Per ETSB No. 11-1 (Rev. 1) Rad- waste should meet augmented Quality Group D stds. See Table 1 of ETSB No. 11.1 (Rev. 1).
Waste Gas Compressor	ASME III Class 3*	_____	Designed for OBE	Category B	
Waste Gas Surge Tank	ASME III Class 3*	ASME VIII ASME III	Designed for OBE	Category B	
Monitor Tanks and Pumps	ASME III Class 3*	_____	_____	Category B	
Gas Stripper and Pump	ASME III Class 3*	_____	_____	Category B	
Spent Resin Storage Tank	ASME III Class 3*	ASME VIII	Non-Seismic	Category B	Per ETSB No. 11-1 (Rev 1), liquid radwaste components need not to be designed for OBE.
Radioactive Waste Ion- Exchangers	ASME III Class 3*	ASME VIII	Non-Seismic	Category B	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Radioactive Waste Disposal System (Continued)</u>					
Decontamination Drain Tank and Pump	ASME III Class 3*	ASME VIII Mfg. Std.	Non-Seismi	Category B	*See remarks on previous page.
Radio-Chem Lab Drain Tank and Pump	ASME III Class 3*	ASME VIII Mfg. Std.	Non-Seismic	Category B	
Liquid Waste Holdup Tanks and Pumps	ASME III Class 3*	_____	Non-Seismic	Category B	
Flash Tank	ASME III Class 3*	ASME VIII	Non-Seismic	Category B	
Reactor Aux. Bldg. Sump Pump	ASME III Class 3*	_____	Non-Seismic Category I	Category B	
Sphere Sump Pump	ASME III Class 3*	_____	Non-Seismic Category I	Category B	
Reactor Coolant System Drain Tank	ASME III Class 3*	ASME VIII ASME III	Non-Seismic Category I		
<u>Condensate Storage System</u>					
Condensate Storage Tank	ASME III Class 3	AWWA-D100	Category I	Category A	Ref. Dwg. Nos. M20-568776 and M20-568779
Piping from Condensate Storage Tank to suction of Aux. Feedwater Pumps	ASME III Class 3	ASA B31.1	Category I	_____	721-14"-HIP

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Radioactive Waste Disposal System (Note 8)</u> (Gaseous and Liquid Radwaste System only)					
Waste Gas Decay Tanks	NNS ASME III Class 3	ASME III ASME VIII	Non-Seismic Category I, but designed for OBE*	Category A	Ref. FSAR Table 9.4 *Quality Group and Seismic classification based on Branch Tech Position ETSB No. 11-1 (Rev. 1) and Reg. Guide 1.26. Per ETSB No. 11-1 (Rev. 1) Rad- waste should meet augmented Quality Group D stds. See Table 1 of ETSB No. 11.1 (Rev. 1).
Waste Gas Compressor	ASME III Class 3*	_____	Designed for OBE	Category B	
Waste Gas Surge Tank	ASME III Class 3*	ASME VIII ASME III	Designed for OBE	Category B	
Monitor Tanks and Pumps	ASME III Class 3*	_____	_____	Category B	
Gas Stripper and Pump	ASME III Class 3*	_____	_____	Category B	
Spent Resin Storage Tank	ASME III Class 3*	ASME VIII	Non-Seismic	Category B	Per ETSB No. 11-1 (Rev 1), liquid radwaste components need not to be designed for OBE.
Radioactive Waste Ion- Exchangers	ASME III Class 3*	ASME VIII	Non-Seismic	Category B	

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
<u>Structures</u>					
Reactor Structure & Containment	ASME III Class 2	ASME III*	Category I	Category A	Ref. FSAR Table 9.3 *Containment sphere, ref. FSAR page 4-66.
Sphere Enclosure Bldg.				Category A	
Reactor Auxiliary Building	N/A	ACI-318-63 AISC-1963 UBC-1961	Category I	Category A	
Control Building Control Room Switchgear Room	N/A	ACI-318-63 AISC-1963 UBC-1961	Category I	Category A	
Battery Room	N/A	_____	Category I	Category A	
Intake Structure	N/A	ACI-318-63	Category I	Category A**	**To salt water cooling pumps.
Spent Fuel Building	N/A	ACI-318-63 AISC-1963 UBC-1961	Category I	Category A	
Spent Fuel Pit	N/A	ACI-318-63 AISC-1963 UBC-1961	Category I	Category A	
Spent and new fuel storage racks	N/A	_____	Category I	_____	
Turbine Area nos. 6&7 (below H.P. and L.P. Heater platform)	N/A	AISC-1963 UBC-1961 ACI-318-63	Category I	Category B	Per Table FSAR 9.3 heater platform is Seismic Category B.

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
- Feedwater Pumps - Aux. F.W. Pumps - Compressors & Air supply equipment					
Ground location for following components:					
Safety Injection Pumps Refueling Water Pumps Spent Fuel Pit Pump Aux. Cooler/Pump	N/A	_____	Category I	Non-Seismic	SCE report on effects of a Piping System Break outsided contain- ment dated December '73 was used as reference for equipment location.
Diesel Generator Bldg.	N/A	_____	Category I	Category A	
<u>Containment Isolation System</u> (Note 4)					
Containment penetrations up to and including first isolation valve outside containment	ASME III Class 2	_____	Category I	_____	FSAR Tables 6.1-1 and 6.2-1 list safety related isolation valves.
<u>Instrumentation and Controls</u>					
Reactor Protection System	IEEE-344 71/75 ASME III Class 1	Mfg. Stds. ASA B31.1	Category I		

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
Safety Injection Actuation System	IEEE-344 71/75	Mfg. Stds.	Category I		
Reactor Control System	IEEE-344 71/75	Mfg. Stds.	Category I		
Nuclear Instru- mentation System	IEEE-344 71/75		Category I		
Control Rod Position Instrumentation	IEEE-344 71/75	Mfg. Stds.	Category I		
Auxiliary Control Panel	IEEE-344 71/75	IEEE-344 71	Category I		
<u>Electrical Systems</u>					
4160 Volt Switchgear Buses 1C and 2C	IEEE-344 71/75	Mfg. Stds.	Category I	Category A	
480 Volt Buses	IEEE-344 71/75	Mfg. Stds.	Category I	Category A	
480 MCCs	IEEE-344 71/75	Mfg. Stds.	Category I		
125 Volt DC Buses 1 and 2	IEEE-344 71/75		Category I		
Batteries	IEEE-344 71/75	Mfg. Stds.	Category I	Category A	
Battery Chargers	IEEE-344 71/75	Mfg. Stds.	Category I		

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Components/Subsystems	Quality Group		Seismic		Remarks
	Reg. G. 1.26 SRP 3.2.2	Plant Design	Reg. G. 1.29 SRP 3.2.1	Plant Design	
DC distribution switch boards	IEEE-344 71/75	Mfg. Stds.	Category I		
Uninterruptable power supply for MOV 850C	IEEE-344 71/75		Category I		
120 Volt AC In- verters	IEEE-344 71/75	Mfg. Stds.	Category I		

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Notes to Classification Table

1. Seismic Category A classification of reactor coolant system tributary piping will be extended only to the first normally closed valve or the first valve capable of remote closure from the control room for the purpose of seismic reevaluation. Seismic qualification of one valve ensures that the reactor coolant pressure boundary (RCPB) will be maintained in the event of a seismic event which potentially fails non-category A equipment.

The Pressurizer Relief Tank (PRT) was designated as Seismic Category A in the original plant design. However, failure of this tank would not constitute a significant hazard to the public health and safety. Therefore, consistent with Regulatory Guide 1.29, the PRT will not be designated as Seismic Category A for the purposes of seismic reevaluation.
3. The majority of the Chemical and Volume Control System (CVCS) was designated as Seismic Category A in the plant design. NRC Regulatory Guide 1.29 suggests that the boron addition portion of the CVCS should be Seismic Category I. However, at San Onofre Unit 1 only a limited portion of the CVCS is required for boron injection. Specifically, boron injection can be effected by the charging pump(s) taking suction from the refueling water storage tank (RWST) and injecting through the reactor coolant pump seals. Therefore, for the purpose of seismic reevaluation only those components and associated piping and valves necessary for boron injection will be designated as Seismic Category A.
4. The Emergency Core Cooling System (ECCS) was designated as Seismic Category A in the plant design and is designated as Seismic Category I in NRC Regulatory Guide 1.29. However, since it is intended that the RCPB will be reevaluated to withstand the design basis earthquake (DBE), a DBE will not cause a LOCA; therefore, the probability of a LOCA coincident with a DBE is extremely remote. In view of this low probability, only those portions of the ECCS utilized for boron addition (see Note 3) will be designated as Seismic Category A for the purposes of seismic reevaluation. In particular, the following systems will not be designated as Seismic Category A: Safety Injection System (except RWST), Containment Spray System, Chemical Addition System, Recirculation System, and Containment Isolation System.
5. Regulatory Guide 1.29 indicates that the Spent Fuel Storage Pool Cooling System should be designated as Seismic Category I. However, in the event that cooling is lost to the spent fuel pool, there is considerable time before the water in the pool begins to boil off and still more time before sufficient water boils off so as to uncover the spent fuel. This allows the operators considerable time to initiate corrective measures to make up the water in the fuel storage pool with available onsite and offsite sources. Therefore, the spent fuel pool cooling system will not be designated as Seismic Category A for the purpose of seismic reevaluation. Of course, the spent fuel pool itself will be designated as Seismic Category A.

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6. The Residual Heat Removal (RHR) System was designated as Seismic Category A in the original plant design and is designated as Seismic Category I in NRC Regulatory Guide 1.29. However, the RHR system is only required to bring the plant to a cold shutdown condition. The plant can be brought to safe hot shutdown condition and maintained in this condition indefinitely without the RHR system. In view of this capability the RHR system will not be designated as Seismic Category A for the purpose of seismic reevaluation.
7. The component cooling water system and saltwater cooling system were designated as Seismic Category A in the original plant design. However, for the purpose of seismic reevaluation only those portions of these systems which are required to support other seismic category A systems will be designated as Seismic Category A. The only such equipment are the charging pump oil coolers and the reactor coolant pump thermal barrier cooling.
8. The waste gas decay tanks were designated as Seismic Category A in the original plant design and the remainder of the gaseous and liquid radwaste systems were designated as Seismic Category B. However, a failure or rupture of any of the components in these systems will not constitute a significant hazard to the health and safety of the public. Therefore, the gaseous and liquid radwaste systems will not be designated as Seismic Category A for the purpose of seismic reevaluation.

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