Bechtel Associates Professional Corporation

SUBJECT: MCAR 25 (issued 11/20/78)

Seismic and Environmental Component Qualification

INTERIM REPORT 4

DATE: July 5, 1979

PROJECT: Consumers Power Company
Midland Plant Units 1 & 2 Bechtel Job 7220

Status of Corrective Action in Process

1. Attached is Revision 8 of the qualification test status report (QTSR). This document provides pertinent information concerning the status of the qualification test documentation rereview by engineering. As noted in the QTSR status column, six NCRs have been dispositioned. They are NCRs 1753, 1755, 1762, 1765, 1776, and 1784. The status of review for several additional tests has changed from "closed" to "inprocess", since Revision 7. Vertical revision bars have been added adjacent to these as well as all other changes.

2. The remaining 45 open NCRs are being tracked weekly. The responsible discipline engineers and procurement expeditors are following up with the vendors to check their progress in submitting the documentation needed to close out the open items. An example of the coordination effort in process is in the area of valve suppliers. Seven orders (M-117, M-120, M-123A, M-123B, M-123C, M-125A, and M-125C) are open due to the motor operator supplier (Limitorque) not having supplied the valve suppliers with the qualification information. Engineering and procurement representatives are working actively with the suppliers to obtain adequate qualification test reports in a uniform manner.

3. To date, only the previously-identified Foxboro transmitters were unable to meet qualification requirements in the final analysis.

4. As previously reported, interface and review requirements for qualification type documentation requirement is being expanded to include Quality Engineering review. In the past 3 months, 21 supplier submittals containing 26 documents have been interfaced with and reviewed by the Quality Engineering group.

5. In addition, Bechtel Power Corporation created a task force to investigate and recommend action on a corporate level, based on problems experienced by current projects. The task force has

released guidance, based on published documents and standards, written to acquaint engineers and designers with criteria to implement qualification requirements when specifying safety-related equipment. The final goal is to obtain vendor documents that will demonstrate the equipments capability to perform as intended in a specified design environment. This guide is intended to be used for new procurements.

Submitted by: Craig Doss

Approved by: W. R. Castleberry

Concurrence by: R. Rusnbaugh

RZB/jet
7/2/4

Attachment: QTSR Revision 8 dated 6/8/79

QUALIFICATION TEST STATUS REPORT
Revision 8
6/8/79

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
A-15, Rev 6 (8/23/76)	Decontaminative surfacer (Ameron)	Seismic-none*	Subparagraphs 3.0 (Specification G-23 and ANSI N101.4), 5.1 (ANSI N101.2), and 10.0 (inspection and tests)			Start Ship: shipped to field |8 Rerev: Not required
		Environmental-none*				
A-41/A-41, Rev 4 (4/12/77)	Field priming and/or top coating of of steel surfaces	Seismic-none*	Subparagraph 3.2 (ANSI N101.2 and N101.4)			Start Ship: shipped |8 Rerev: Not required. This order handled by the field
		Environmental-none*				
A-45/A-45, Rev 2 (11/4/76)	DBA environmental testing (ORNL)	Seismic-none*	Subparagraph 3.0 test procedures (ANSI N101.2)			Start Ship: NA Rerev: Not required
		Environmental-none*				
C-018/C-18, Rev 6 (1/25/75)	Field erected tanks (Graver Tank)	Seismic-none*	Subparagraphs 5.1.3 (ASME Code, Section III. Subsection NC), 5.3.4; Appendix A, ppg. 11, 12; Appendix F, Paragraph 2.3 (design requirements); Article 4.0 (ASME Code, Section III, Subsection NC)	Results only |8	C-18-131-3, 5/14/79, in review |8	Start Ship: 9/13/78A Rerev: Not required
		Environmental-none*	Appendix F. Article 3.0			
C-042/C-42, Rev 2 (6/9/78)	New and spent fuel racks (Wachter)	Seismic-IEEE Std 344-75*	Subparagraphs 1.1.6, 3.1.2, 3.1.4, 4.2.4, 5.2.10, 5.3.10, 5.3.12, 9.2; Appendix B, Article 2.2 (IEEE Std 344-75) G-321-D 7.0-PAR	Action by 6/15/79 |8 (new fuel racks) C-42-31-2 5/22/79 in review |8	Action by 6/15/79 |8 (new fuel racks) C-42-31-2 5/22/79 in review |8	Start Ship: 7/15/79F |8 Rerev: Not required
		Environmental-none*	Article 6.2, Appendix C (criticality and thermal-hydraulic criteria - spent fuel racks only)	C-42-29-1 4/2/79 |8 Level 2 (t-h analysis)	C-42-29-1 4/2/79 |8 Level 2 (t-h analysis)	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure		Qualification Test Results		Status	
				C-42-6-2 4/12/79 Level 1 (criticality analysis)	8	C-42-6-2 4/12/79 Level 1 (criticality analysis)	8		
C-044/C-44, Rev 3 (8/9/77)	Fuel pool gates (W.J. Woolley)	Seismic-IEEE Std 344-75*	Paragraphs 2.3 (IEEE Std 344-75), 5.4, 5.4.2 (G-7, Rev 5), 5.5.3, 5.5.4, 5.6; Appendix D, Paragraph 2.2 (IEEE Std 344-75)	C-44-24-1, 7/27/78, Level 1		C-44-24-1, 7/27/78, Level 1		Start Ship: 5/1/79A Rerev: Inprocess	8
				C-44-25-1, 7/27/78, Level 1		C-44-25-1, 7/27/78, Level 1			
		Environmental-none*	Articles 5.2 (rad doses), 5.3.2	Action by 2/1/80	8	Action by 2/1/80	8		
C-046/C-46, Rev 6 (8/8/78)	Fuel transfer tube (Pathway-Bellows)	Seismic-none*	Article 5.1.1					Start ship: 3/30/79A	8
		Environmental-none*	Article 4.3 (rad doses)	Action by 8/15/79 (seals)	8	Action by 8/15/79 (seals)	8	Telecopy rec'd from vendor 3/29/79 (not approved)	8
C-050B/C-50, Rev 13 (6/5/69)	Reactor building locks and hatches (W.J. Woolley)	Seismic-none*	Article 7.4	C-50B-12-7, 4/13/79, Level 1		C-50B-12-7, 4/13/79, Level 1		Start Ship: 10/20/78A Rerev: In-process. NCR 1746	
				C-50B-13-8, 12/4/78, Level 1	8	C-50B-13-8, 12/4/78, Level 1	8		
				C-50B-17-13, 3/13/79, Level 1		C-50B-17-13, 3/13/79, Level 1			
				C-50B-18-10, 3/13/79, Level 1		C-50B-18-10, 3/13/79, Level 1			

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				C-50B-138-6, 12/4/78, Level 1	C-50B-138-6, 12/4/78, Level 1	
				C-50B-141-4, 12/4/78, Level 1	C-50B-141-4, 12/4/78, Level 1	
		Environmental-none*	Article 7.4 (design requirements)	Action by 6/15/79 |8	Action by 6/15/79 |8	
C-70/C-70, Rev 3 (10/31/74)	Hydraulic shock suppressors (ITT Grinnell)	Seismic-none*	Articles 4.2, 9.1 (ASME Code, Section III, Subsection NF, 1974)	C-70-114-3, 5/4/78, Level 1	C-70-114-3, 5/4/78, Level 1	Start Ship: 10/1/78A Rerev: In-process. NCR 1747
				C-70-205-2, 12/19/78, Level 1	C-70-205-2, 12/19/78, Level 1	Per Telecom 10/3/78, standards updated for revisions by ITT
				C-70-328-2 1/24/79, Level 3	C-70-328-2, 1/24/79, Level 3	
		Environmental-none*	Article 5.0 (environmental conditions) G-321-D 26.0-PAR (performance tests)	C-70-333-2, 4/3/79, Level 1 |8 C-70-332-3, 4/26/79 Level 1 |	Action by 6/30/79 |8 Action by 6/30/79 |	Hydro test submitted during delivery of snubber. Report on seal life to be submitted.
E-6/E-6, Rev 7 (10/2/74)	480V load center unit substations (General Electric)	Seismic-IEEE Std 344-71* IEEE Std 344-75**	Articles 4.1 (IEEE Std); 5.6 (G-7, Rev 4) G-321-D 7.0-PAR	Low voltage switchgear E-6-35-1, 11/9/77, acceptable (IEEE Std 344-75)	E-6-53-1, 1/4/76, acceptable	Start Ship: 2/7/77A Rerev: In-process. NCR 1748 |8
				Transformers E-6-80-1, 10/5/77, acceptable (IEEE Std 344-75)	E-6-81-2, 3/14/79, Level 3 |8	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
		Environmental- IEEE Std 323-74*	Paragraphs 4.1, 8.1.5 (ANSI C37.20, Section 8-2.2.2, temperature and water tight tests)			IEEE Std 323-71 not part of contract; engineering in process of contacting vendor.
E-7/E-7, Rev 6 (6/14/76)	480V motor control centers (Gould)	Seismic- IEEE Std 344-75*/**	Article 4.0 and Appendix A, Paragraph 1.4 (IEEE Std; G-7, Rev 4; G-29, Rev 2; and G-30, Rev 1.); G-29, Article 1.0 (IEEE Std 344-75); G-30, Article 1.0 (IEEE Std 344-75) G-321-D 7.0-PANR	E-7-58-9, 3/30/79, in review	E-7-58-9, 3/30/79, in review	Start Ship: 12/1/77A Add-on Shipment: 12/29/78F Rerev: Inprocess NCR 1749 |8
		Environmental- IEEE Std 323-74*/**	Article 4.0, 8.4 (IEEE Std G-28, Rev 2, Paragraph 1.6.1 (IEEE Std 323-74), G-30 Rev 1, Paragraph 1.6.1 (IEEE Std 323-74) G-321-D 26.1-PANR (test results)	E-7-101-1, 10/7/77, acceptable	E-7-129-3, 3/21/79, in review	
E-11/E-11, Rev 8 (9/27/74)	Battery charg s (SCI)	Seismic- IEEE Std 344-71* IEEE Std 344-75**	Paragraphs 4.1, 5.3 (IEEE Std and G-7, Rev 4) G-321-D 7.0-PANR	E-11-7-2, 7/18/77, Level 1 (IEEE Std 344-75)	E-11-18-1, 2/22/78, Level 1	Start Ship: 1/6/78A Rerev: In-process. NCR 1750 |8
				E-11-20-1, 3/14/79, Level I	E-11-20-1, 3/14/79, Level 1	
		Environmental- IEEE Std 323-74*	Subparagraph 6.1.3, (temperature requirements)			IEEE Std 323-71 not part of contract; letter to endor 3/26/79

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
E-12/E-12, Rev 5 (8/25/76)	Station batteries (Exide)	Seismic- IEEE Std 344-75*/**	Paragraph 10.1 (IEEE Std 344 and G-7, Rev 5); G-7, Paragraph 2.2 (IEEE Std 344-75) G-321-D 7.0-PANR	E-12-38-3, 11/28/78, Level 3		Start Ship: 11/6/78A Rerev: Not required
		Environmental- IEEE Std 323-74*/**	Article 10.4 (IEEE Std 323)	E-12-38-3, 11/28/78, Level 3		VECRs sent to supplier 12/78 and 1/79.
E-13/E-13, Rev 7 (10/11/74)	DC distribution centers (Westinghouse)	Seismic- IEEE Std 344-71*/**	Articles 4.0, 5.3 (G-7, Rev 4) G-321-D 7.0-PAR (certification only)	E-13-25-1, 6/11/77, acceptable (IEEE Std 344-75)	E-13-29-3, 9/13/78, Level 1	Start Ship: 9/27/78A Rerev: In-process. NCR 1751 |8
		Environmental- IEEE Std 323-74*	None			IEEE Std 323-71 not part of contract; letter to vendor 2/27/79 requesting ANSI and IPCEA certification
E-19/E-19, Rev 6 (10/11/74)	Preferred ac power supplies (SCI)	Seismic- IEEE Std 344-71* IEEE Std 344-75**	Paragraphs 4.1 (IEEE Std), 5.3 (G-7, Rev 4) G-321-D 7.0-PANR	E-19-17-3, 9/19/77, Level 1	E-19-32-1, 3/16/78, Level 1	Start Ship: 1/6/78A Rerev: In-process. NCR 1752 |8
		Environmental- IEEE Std 323-74*	Paragraph 4.1 (IEEE Standard)			IEEE Std 323-71 not part of contract: letter to vendor 3/9/79 requesting verification of compliance with IEEE Std 323-71 and IPCEA S-61-402.

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
E-20/E-20, Rev 5 (8/6/74)	Cable penetrations (Amphenol Sams)	Seismic- IEEE Std 344-75*/**	Subparagraphs 4.1.12 (IEEE Std 344) 5.5 (G-6, Rev 4) G-321-D 7.0-PAR	E-20-114-4, 10/19/77, Level 1. Procedure combines seismic and environmental testing per IEEE Std 344-75, IEEE Std 323-74, and IEEE Std 317-72.	Seismic results unacceptable. E-20-163-2, 1/22/79, Level 3	Start Ship: Flanges: 7/28/76A Assemblies: 2/10/78A Rerev: Complete. Meeting held 3/14/79 to discuss problems with the DQT. Resolution by 7/30/79F. |8
		Environmental- IEEE Std 323-74*	Subparagraph 4.1.11 (IEEE Std 323)		E-20-158-1 submitted for information only (4/18/78).	
		IEEE Std 317-72*	Subparagraphs 4.1.10, 6.5.1, 7.1.1, 7.1.2, 7.2.1, 7.3.1 (IEEE Std 317-72)	Supplementary environmental Test Procedure E-20-162-4, 4/12/79, Level 1 |8	Supplementary Environmental Test Results E-20-162-4, 4/12/79, Level 1 E-20-166-1, 4/12/79, Level 1 E-20-167-1, 4/12/79, Level 2 E-20-168-1, 4/12/79, Level 2 E-20-169-1, 4/12/79, Level 1 |8	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
E-21/E-21, Rev 7 (6/20/74)	5,000V and 8,000V power cable (Kerite)	Seismic- none* Environmental- IEEE Std 323-74* IEEE Std 383-74*	Paragraph 5.4 (service design requirements), no reference to IEEE standards	E-21-8-1, 8/5/76, Level 1	E-21-8-1, 8/5/76, Level 1	Start Ship: 9/22/76A Rerev: Complete. NCR 1753: Dispositioned 2/13/79.	8
E-22/E-22, Rev 3 (4/2/76)	600V power cable (Essex)	Seismic- none*				Start Ship: 2/1/77A Rerev: In-process. NCR 1754	8
		Environmental- IEEE Std 323-74*/** IEEE Std 383-74*	Appendix A (engineering data), no reference to IEEE Standards Subparagraphs 8.2.3, 8.3, and 12.3.3 (IEEE Std 383-74) G-321-D 26.2-PANR	E-22-40-1, 2/16/79, Level 1	E-22-5-1, 8/18/76, Level 1 E-22-6-1, 7/17/76, Level 1 E-22-8-3, E-22-9-3, E-22-11-3, E-22-12-2. E-22-14-2, E-22-15-2, E-22-17-2, E-22-18-2, 3/12/79, Level 2 E-22-10-3, 5/3/77, acceptable E-22-13-1, E-22-16-1, 3/15/77, acceptable E-22-19-1 through E-22-22-1, 4/18/77, acceptable	Cable sent to field for inspection 1/2/79.	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
					E-22-23-1, E-22-24-1, 6/16/77, acceptable E-22-26-2, E-22-27-3, E-22-29-1, 8/18/77, acceptable E-22-28-1, 7/29/77, Level 1 E-22-30-1, E-22-31-1, 10/3/77, acceptable	
E-26/E-26, Rev 4 (10/29/76)	600V control cable (Rockbestos)	Seismic- none*				Start Ship: 7/26/77A Rerev: Complete. NCR 1755: Dispositioned 2/13/79. |8
		Environmental- IEEE Std 323-74*/** IEEE Std 383-74*	Article 4.0 (IEEE Std 323-74) Article 4.0, 7.3, 11.3 (IEEE Std 383-74) G-321-D 26.2-PANR	E-26-27-2, 2/12/79, Level 1	E-26-27-2, 2/12/79, Level 1	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
E-45/E-45, Rev 3 (9/26/77)	a. 480Vac distribution panels 120Vac and 125Vdc distribution panels (Square D)	Seismic- IEEE Std 344-75*/**	Articles 4.0, 5.3 (IEEE Std 344-75 and G-7, Rev 5); G-7, Paragraph 2.2 (IEEE Std 344-75); G-30, Rev 1, Paragraphs 1.1.1, 1.6, 1.7 (IEEE Std 344-75) G-321-D 7.0-PAR (prototype test only)	E-45-22-3, in review |8	E-45-22-3, in review |8	Start Ship: 11/10/78A Rerev: In-process. NCR 1756. |8
		Environmental- IEEE Std 323-74*/**	Articles 4.0, 5.2, 12.2.1 (IEEE Std 323-74); G-30, Rev 1, 1.6 (IEEE Std 323-74)	E-45-10-3, 6/12/78, Level 1	E-45-10-3, 6/12/78, Level 1	
	b. 120Vac preferred panels	Seismic- IEEE Std 334-75*/**	Articles 4.0, 5.3 (IEEE Std 344-75 and G-7, Rev 5); G-7, Paragraph 2.2 (IEEE Std 344-75); G-30, Rev 1, Paragraphs 1.1.1, 1.6, 1.7 (IEEE Std 344-75) G-321-D 7.0-PAR (prototype test only)	E-45-54-3, 4/24/79, Level 1 |8	E-45-54-3, 4/24/79, Level 1 |8	Start Ship: 1/12/79A VPCR sent to Supplier 1/79
		Environmental- IEEE Std 323-74*/**	Articles 4.0, 5.2, 12.2.1 (IEEE Std 323-74); G-30, Rev 1, 1.6 (IEEE Std 323-74)	E-45-51-2, 2/1/79, Level 1	E-45-51-2, 2/1/79, Level 1	
	c. 120Vac control and instrument panels	Seismic- IEEE Std 344-75*/**	Articles 4.0, 5.3 (IEEE Std 344-75 and G-7, Rev 5); G-7, Paragraph 2.2 (IEEE Std 334-75); G-30, Rev 1, Paragraphs 1.1.1, 1.6, 1.7 (IEEE Std 344-75) G-321-D 7.0-PAR (prototype test only)	E-45-55-3, 4/24/79, Level 1 |8	E-45-55-3, 4/24/79, Level 1 |8	Start ship: 12/21/78A
		Environmental- IEEE Std 323-74*/**	Articles 4.0, 5.2, 12.2.1 (IEEE Std 323-74); G-30, Rev 1, 1.6 (IEEE Std 323-74)	E-45-63-1, 1/17/79, Level 2	E-45-63-1, 1/17/79, Level 2	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
	d. 125Vdc distribution panels	Seismic- IEEE Std 344-75*/**	Articles 4.0. 5.3 (IEEE Std 344-75 and G-7, Rev 5); G-7, Paragraph 2.2 (IEEE 344-75); G-30, Rev 1, Paragraphs 1.1.1, 1.6, 1.7 (IEEE Std 344-75) G-321-D 7.0-PAR (prototype test only)	E-45-53-3, 4/24/79, Level 1	E-45-53-3, 4/24/79, Level 1	Start ship: 2/7/79A
		Environmental- IEEE Std 323-74*/**	Articles 4.0, 5.2, 12.2.1 (IEEE Std 323-74); G-30, Rev 1, 1.6 (IEEE Std 323-74)	E-45-52-1, 11/30/78, Level 1	E-45-52-1, 11/30/78, Level 1	
E-49/E-49, Rev 3 (10/31/77)	Station battery fused disconnect switches (Gould)	Seismic- IEEE Std 344-75*/**	Articles 4.0 (IEEE Std), 7.1.1 (IEEE Std 344-75), 7.1.2 (G-7, Rev 5) G-321-D 7.0-PANR	E-49-2-3, 9/26/78, Level 1	E-49-2-3, 9/26/78, Level 1	Start Ship: 5/26/78A Rerev: In-process. NCR 1757
		Environmental- IEEE Std 323-74*/**	Articles 4.1 (IEEE Std), 7.2.1 (IEEE Std 323-74) G-321-D 26.2-PANR		E-49-7-2, in review	
E-051B/E-051B, Rev 1 (11/4/77)	Instrument ac power transformers and regulator transformers (SCI)	Seismic- IEEE Std 344-75*/**	Articles 4.0, 5.2, 11.2 (IEEE Std 344-75); G-7 Rev 5, Paragraph 2.2 (IEEE Std 344-75); G-30, Rev 1, Paragraphs 1.11, 1.6, 1.7 (IEEE Std 344-75) G-321-D 7.0-PANR	E-51B-15-2, 11/6/78, Level 1 (regulator transformer) To be resubmitted	Action by 6/30/79	Start Ship: 11/16/79F Rerev: Not required
		Environmental IEEE Std 323-74*/**	Articles 4.0, 11.2 (IEEE Std 323-74) G-321-D 26.2-PANR (certified test reports before shipment)	E-51B-13-5, 2/21/79, Level 1 (regulator transformer)	Action by 6/30/79	

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
E-56/E-56, Rev 1 (6/22/78)	Coax, triax, and twinax cable (Rockbestos)	Seismic- none*				Start Ship: 6/30/79F |8 Rerev: Not required
		Environmental- IEEE Std 323-74*/**	Articles 4.0, 10.5.5 (IEEE Std 323-74); Appendix A (engineering data)	E-56-8-3, 2/21/79, Level 2	E-56-8-3, 2/21/79, Level 2	
		IEEE Std 383-74*	Articles 4.0, 7.1, 7.3, 7.4, 10.5.4 (IEEE Std 383-74)			
			G-321-D 26.0-PANR (approval before shipment)			
E-060/E-60, Rev 1 (8/17/78)	Instrument and special purpose cable (Rockbestos)	Seismic- none*				Start Ship: 1/26/79A Rerev: Not required
		Environmental- IEEE Std 323-74*/**	Articles 4.0, 11.5.5 (IEEE Std 323-74) Appendix A (engineering data)	E-60-21-2, 1/3/79, Level 3	Test to start 3/2/79 (120 day duration	
		IEEE Std 383-74*	Articles 4.0, 7.0, 7.1 7.3, 7.4, 11.5.4 (IEEE Std 383-74)	E-60-21-2, 1/3/79, Level 3		
			G-321-D 26.2-PANR (test results)			
E-205/E-205, Rev 8 (4/24/74)	Metalc' ` switcl r (ITE)	Seismic- IEEE Std 344-71*/**	Articles 4.0, 5.3 (G-7, Rev 4) G-321-D 7.0-PANR	Not required per engineering	E-205-222-1, 6/7/76, acceptable (certification only)	Start Ship: 12/9/76A Rerev: In-process. NCR 1758 |8
		Environmental- IEEE Std 323-74*	Article 4.1 (ANSI C37.09, Section 4.15, requirements for temperature and total expected life)		E-205-467-1, 3/8/79, In review (certification only)	

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
J-201/J-201, Rev 5 (4/14/75)	Main control boards (Magnetics)	Seismic- IEEE Std 344-75*/**	Paragraphs 1.5b, 2.1.1c, 2.1.5, 4.1.2, 13.0, Attachment 5, Rev 1; Paragraphs 4.1.15, 13.1.1, Attachment 5a, Paragraphs 1.3, 2.0, 2.8, Attachment 5b, 1.3, 2.0, 2.7, 5.0 (IEEE Std 344) G-321-D 7.0-PAR (procedures and reports)	J-201-286-1, 8/16/77, acceptable		Start Ship: 8/19/77A Rerev: Inprocess. NCR 1759	
				J-201-287-2 through 289-2, and J-201-296-2 through 300-2, 8/10/78, Level 1	J-201-287-2 through 289-2, and J-201-296-2 through 300-2, 8/10/78, Level 1	Letter to CPCo BLC 7636 dated 5/25/79	8
				J-201-318-2 and 321-2, 8/10/78, Level 1	J-201-318-2 and 321-2, 8/10/78, Level 1		
				J-201-397-1, 2/28/78, Level 1	J-201-397-1, 2/28/78, Level 1		
				J-201-410-1, 8/10/78, Level 1	J-201-410-1, 8/10/78, Level 1		
		Environmental- IEEE Std 323-74*/**	Subparagraph 4.1.13 (IEEE Std 323); Article 5.0 (service conditions) G-321-D 26.1-PAR (test procedures) G-321-D 26.2-PANR (test report)			SCN issued 11/29/78 which incorporates IEEE Std 323-74	8
J-202/J-202, Rev 5 (12/20/77)	Auxiliary/ local control boards (Harlo)	Seismic- IEEE Std 344-75*/**	Articles 2.2.1, 9.3.1, 9.3.2, (IEEE Std 344-75)	J-202-79-1, 10/6/77, acceptable	J-202-79-1, 10/6/77, acceptable	Start Ship: 3/10/78A Rerev: Inprocess. NCR 1760	
		Environmental- IEEE Std 323-74*/**	Article 4.1 (service conditions)				

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
J-204/J-204, Rev 6 (5/3/74)	Major instrument package (Foxboro)	Seismic- IEEE Std 344-71*/** (instrument racks, rack mounted instrumentation and power supplies) 8	Subparagraphs 4.1.3 (IEEE Std 344-71); Subparagraph 5.1.2 (G-6, Rev 4 and G-7, Rev 4); 6.1 G-321-D 7.0-PAR	J-204-33-1, in review 8 J-204-244-1, in review	J-204-33-1, in review 8 J-204-244-1, in review	Start Ship: 11/24/78A Rerev: In-process. NCR 1761. Discrepancy has been resolved by deleting field transmitters from P.O. J-204 and issuing new P.O. J-245 in 2/79A. 8
		IEEE Std 344-71* IEEE Std 344-75** (panel mounted electronic controllers)		J-204-33-2, 2/26/79, acceptable	J-204-33-2, 2/26/79, acceptable	
				J-204-147-1, 9/8/76, acceptable	J-204-147-1, 9/8/76, acceptable	Vendor requalification in process. To be resolved late 1979.
				J-204-176-1, 9/21/77, acceptable	J-204-176-1, 9/21/77, acceptable	
				J-204-230-1, 4/18/78, Level 2 (IEEE Std 344-75) 8		Currently being tested. Results by 9/30/79.
		Environmental- IEEE Std 323-74*	Subparagraph 4.1.2 and 6.1 (IEEE Std 323-71), Subparagraph 5.1.1 (J-1564)	J-204-189-1, 6/27/77, information only, rack mounted modules only (IEEE Std 344-75 and IEEE Std 323-74)		
		IEEE Std 383-74*	Subparagraphs 4.1.6 and 7.3 (IEEE Std G-321-D 26.0-PANR (test results)			

MK Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
J-207/J-207, Rev 4 (3/11/77)	Engineering safety features actuation system (Vitro Lab)	Seismic- IEEE Std 344-75*/**	Section 2B (IEEE Std 344-75) Section E2 (G-7, Rev 5) G-321-D 7.0-PAR	J-207-16-3, 2/13/78, Level 1	J-207-85-3, 10/23/78, Level 1	Start Ship: 6/30/78A Rerev: Complete. NCR 1762: Dispositioned 5/4/79.	8
		Environmental- IEEE Std 323-74*/** IEEE 383-74*	Section 2B, 5E1 (IEEE Std 323-74) Article 4.0	J-207-18-2, 10/19/77, Level 1 (service conditions)	J-207-222-1, 10/19/78, Level 1		
				J-207-16-3, 2/13/78, Level 1 (radiation)	J-207-16-3, 2/13/78, Level 1		8
			Section 2B (IEEE Std 383-74) G-321-D 26.0-PAR			Certification of compliance shipped to field with ESFAS documentation package.	
J-214/J-214, Rev 1 (9/13/78)	Seismic instruments (Terra Technology)	Seismic- IEEE Std 344-75*/**	Paragraphs 2.2 (IEEE Std 344), 3.3.1 (IEEE Std 344-75), Subparagraphs 4.1.2, 7.1.4 (G-6, Rev 5 and G-7, Rev 5), and Article 6.1 (design qualification) Attachment M to MR, Sh 2	J-214-1-1, 2/5/79, Level 2	J-214-1-1, 2/5/79, Level 2	Start Ship: 7/1/79F Rerev: Not required. Reviewed by civil and found acceptable.	8
		Environmental- none*	Attachment M to MR (J-1564, Rev 0)	Not required	Not required		

3.2.1.2.3

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
J-229/J-563, Rev 3 (2/14/77)	Temperature switches (Thermowells) (United Electric Controls)	Seismic-none*	Attachment E to MR (J-1564, Rev 2)	Not required	Not required	Start Ship: 5/18/79 Rerev: Complete. Bulk shelf items previously qualified. No further qualification necessary. 8
		Environmental-none*	Attachment E to MR (J-1564, Rev 2)	Not required	Not required	
J-232/J-435, Rev 3 (3/29/77)	Orifice plates for nuclear service (Vickery-Simms)	Seismic-none*	Paragraphs 1.1.1, (ASME Code, Section III, Division 1, Classes 2 or 3)	Not required	Not required	Start Ship: 11/11/79F Rerev: Complete. Bulk shelf items previously qualified. No further qualification necessary.
		Environmental-none*	Attachment C to MR (data sheets)	Not required	Not required	
J-233/J-563, Rev 3 (11/24/76)	Resistance temperature detector assemblies (Thermowells) (Weed Instruments)	Seismic-none*	Paragraphs 1.1.1, 2.2, Attachment E to MR (J-1564, Rev 3)	Not required	Not required	Start Ship: 11/14/77A Rerev: Complete. Bulk shelf items previously qualified. No further qualification necessary.
		Environmental-none*	Attachment E to MR (J-1563, Rev 0)	Not required	Not required	
J-241, Rev 5 (9/3/76)	Pressure gages, nuclear service (field purchase) (issued for bids)	Seismic-IEEE 344-75*	Paragraphs 2.2, 6.1, and Attachment 4 to MR (J-1564, Rev 1) G-321-D 7.0-PAR	Field purchase ETL RPT 4947 2/13/73 acceptable 8	Field purchase ETL RPT 4947 2/13/73 acceptable 8	Start Ship: NA Rerev: Complete.

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
		Environmental-none*	Paragraph 4.1 and Attachment 4 to MR (J-1564, Rev 1)	Field purchase	Field purchase	
J-242/J-425, Rev 3 (4/29/77)	Venturi tubes, nuclear service (B.I.F.)	Seismic-none*	Appendix D, Article 2.4 of J-425, Rev 5			Start Ship: 7/21/78A Rerev: Complete. |8 Bulk shelf items previously qualified. No further qualification necessary.
		Environmental-none*	Appendix D, Article 3.0 of J-425, Rev 1 and Attachment C to MR (data sheets)	Not required	Not required	
J-245 Rev 0 (3/15/79) |8	Field Transmitters (Rosemount)	Seismic-IEEE Std 344-75*	Paragraph 5.4.1a, Appendix A			Start Ship: 8/18/79F
		Environmental-IEEE Std 323-71** IEEE Std 323-74* (see response to RG 1.89 FSAR Appendix 3A)	Paragraph 5.3.2, Attachment 9 to MR			
J-253/J-253, Rev 3 (6/7/74)	Atmospheric steam dump valves (CCI)	Seismic-none*	Paragraph 5.2 (seismic criteria) G-321-D 7.0-PAR	J-253-23-4, 7/28/76, acceptable	J-253-23-4, 7/28/76, acceptable	Start Ship: 12/1/77A Rerev: Complete
		Environmental-none*	Paragraph 5.1 (environmental criteria)	Not required	Not required	
J-255 A, J-255, Rev 8 (7/8/74)	Nuclear services control valves (Vulcan (A) and CCI (B)	Seismic-none*	Paragraph 5.3, 5.4 (seismic critera); G-9, 4.2 (IEEE Std 344); 7.1 (IEEE Std) G-321-D 7.0-PAR	J-255A-19-1, 12/23/75, Level 1	J-255A-19-1, 12/23/75, Level 1	Start Ship: 6/5/78A Rerev: In-process. |8 NCR 1763

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
J-255B/ J-255, Rev 8 (7/9/74)				J-255B-25-2, 8/31/76, acceptable	J-255B-25-2, 8/31/76, acceptable	Start Ship: 8/1/76A Rerev: In-process
		Environmental-none*	Paragraph 5.2 (environmental criteria) and Attachment F to J-255 (G-9, Rev 2)	Action by 8/15/79 |8	J-255B-62-3, 4/21/79, Level 3 (informational document, and actual test report). |8	This report covers Rotork valve operators.
J-256/J-603, Rev 6 (7/16/76)	Nuclear service solenoid valves (Target Rock Corp)	Seismic-IEEE Std 344-75*	Article 4.0 (IEEE Std 344); Appendix A Article 2, Appendix I (design limits qualification	J-256-45-3, 7/24/78, Level 1	J-256-45-3, 7/24/78, Level 1	Start Ship: 6/78A Rerev: In-process. NCR 1764
				J-256-71-2, 7/24/78, Level 1	Action by 8/15/79 |8	Discrepancy on J-256-45-3 resolved by J-256-71-2.
		Environmental-IEEE Std 323-74*/** IEEE Std 382-72*/**	Article 4.0 (IEEE Std 323); Paragraph 5.1 and Appendix J (environmental criteria)	J-256-42-1, 12/8/77, acceptable	J-256-42-1, 12/8/77, acceptable	
			Article 4.0 (IEEE Std 382); Paragraph 5.1 and Attachment G (G-29, Rev 1)	J-256-42-1, 12/8/77, acceptable	J-256-42-1, 12/8/77, acceptable	J-256-42-1 request to vendor, R.L. Castleberry to R. Wells (TRC) 1/24/79.

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
J-258/J-605, Rev 8 (7/29/75)	Nuclear service butterfly control valves (Fisher Controls)	Seismic- IEEE Std 344-75*/**	Article 4.0 (IEEE Std 344-75), Paragraph 5.1; Appendix I, Paragraph 4.2 (IEEE Std 344)	J-258-21-1, 6/17/76, acceptable	J-258-21-1, 6/17/76, acceptable	Start Ship: 5/79A | 8 Rerev: Complete. NCR 1765: Dispositioned 4/20/79. | 8
				J-258-39-1 through J-258-55-1, 3/20/78, Level 1	J-258-39-1 through J-258-55-1, 3/20/78, Level 1	
		Environmental- IEEE Std 323-74*/** IEEE Std 382-72*	Paragraph 5.1 and Appendix L (environmental criteria) no reference to IEEE Standards			Refer to letter from Fisher controls 10/18 78 (File J-258-PL)
			Article 4.0 (IEEE Std 382); G-9, Paragraphs 4.2 (IEEE Std 382) Paragraphs 4.0, 7.13 IEEE 382-72)	J-258-40-1, 4/18/78, Level 1 (Limitorque operators)	J-258-40-1, 4/18/78, Level 1 (Limitorque operators)	ITT actuator qualifications to be submitted; letter from Fisher 3/6/79 requesting $600 for liner and ITT actuator test reports.
J-275/J-275, Rev 3 (8/17/77)	Engineering safety isolation system (CCC)	Seismic- IEEE Std 344-75*/**	Paragraphs 2.2, 3.3.3 (IEEE Std 344-75); Section 4.1.3 (G-7, Rev 5) G-321-D 7.0-PAR	J-275-68-2, 6/7/78, Level 1	J-275-58-2, 6/27/78, Level 1	Start Ship: 4/1/78A Rerev: In-process. NCR 1766
					J-275-76-1, 6/28/78, Level 1	
		Environmental- IEEE Std 323-74*/**	Paragraphs 2.2, 3.3.3,5.1 (IEEE Std 323-74); Subparagraph 4.1.1 (J-156?)	J-275-75-2, 7/5/78, Level 1	J-275-79-1, 7/5/78, Level 1	
		IEEE Std 383-74*	Paragraphs 2.2, 6.7.1 (IEEE Std 383-74) G-321-D 26.2-PANR		J-275-80-1, 7/11/78, Level 1	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
					J-275-81-1, 7/13/78, Level 1 (Certificate of compliance)	Request to Vendor 11/6/78. Response by 7/79F.	8
J-278/J-278, Rev 3 2/6/79	Room water level safety monitoring system	Seismic IEEE Std 344-75*/**	Section 2.2, 3.3.3, 6.2.5, 6.4.4, 6.6.4 (IEEE Std 344-75), 4.1.3 (G-7, Rev 5)	J-278-5-2 in review (requires post functional testing)		Start Ship: 8/31/79F Qualification test results and conclusion report expected 8/79F (seismic and environmental).	8
		Environmental IEEE Std 323-74*/**	Section 3.3.3, 5.1, 6.2.5, 6.6.4 (IEEE Std 323-74)	J-278-14-1, J-278-15-1 in review			8
J-284/J-284, Rev 1 (5/14/79F,	Containment post-LOCA hydrogen monitoring equipment (reissued for bids)	Seismic- IEEE Std 344-75*/**	Section 2B, 3C4 (IEEE Std 344-75); Section 4.A.2 (G-7, Rev 5)			Start Ship: 2/15/80F Rerev: Not required	
		Environmental- IEEE Std 323-74*/**	Section 2B, 3C4, 5A (IEEE Std 323-74); Section 4A (7220-J-1564, Rev. 3)				
M-14/M-14, Rev 3 (12/30/75)	Auxiliary feedwater pumps (Bingham-Willamette)	Seismic- IEEE Std 344-75*/**	Articles 2.0, 6.1.3, 6.4.1.k, and 6.4.2.e (IEEE Std 344-75); Article 13.0 (G-7, Rev 4) G-321-D 7.0-PAR			Start Ship: 5/24/78A Rerev: Complete. NCR 1767	8
				M-14-124-1, in review (motor driven pumps)	M-14-124-1, in review	Action by 6/30/79	8

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				M-14-125-1, in review (turbine driven pumps)	M-14-125-1, in review	Action by 6/30/79
				M-14-34-1, 8/1/78, unacceptable	M-14-34-1, 8/1/78, unacceptable	Action by 6/30/79
				M-14-118-1, 1/5/79, Level 2 (motors)	M-14-118-1, 1/5/79, Level 2	
		Environmental- IEEE Std 323-74*/**	Articles 2.0, 6.4.1.k, and 6.4.2.e (IEEE Std 323-74)	M-14-119-2, 4/23/79, in review (motors)	M-14-119-2, 4/23/79, in review (motors)	
M-18/M-18, Rev 4 (5/4/77)	Emergency diesel generators (Delaval)	Seismic- IEEE Std 344-75*/**	Subparagraphs 1.6, 3.b.7 and 5.1.14 (IEEE Std 344-75); Appendix A (G-29, Rev 3) G-321-D 7.0-PAR	M-18-30-3, 2/28/78, Level 1	Refer to M-18-370, 371, 372 for test results	Start Ship: 9/22/78A Rerev: Complete.
				M-18-59-4, 1/25/78, Level 1 (panels)	Refer to M-18-370, 371 372 for test results	
				M-18-370-1, 2/7/79, Level 3	M-18-370-1, 2/7/79, Level 3	To be resubmitted 6/79
				M-18-371-1, 2/7/79, Level 3	M-18-371-1, 2/7/79, Level 3	To be resubmitted 6/79
				M-18-372-1, 2/7/79, Level 3	M-18-372-1, 2/7/79, Level 3	To be resubmitted 6/79
		Environmental- IEEE Std 323-74*/**	Subparagraphs 3.b.7, 5.1.1a and c, 9.2.k (IEEE Std 323-74)	M-18-389-1, 5/20/79, Level 3 (switchgear, cabinets per IEEE Std 323-74)		Test results expected early 1980.

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				M-18-334-4, 5/22/79, Level 1 (engine control system components) | 8		
				M-18-362-1, 6/29/78, Level 1 (Class 1E motors, etc, per IEEE Stds 323-74, 334-75, 344-75, 387-76) (generator)		Test results expected mid-1980. | 8
M-19/M-19, Rev 2 (7/29/77)	Emergency diesel fuel transfer pumps (Chempump)	Seismic-IEEE Std 344-75*/**	Subparagraphs 4.1.1.h, 4.2.2, 4.5.2, 10.3.3.c (IEEE Std 344-75); Appendix H, Subparagraphs 1.6.1, 1.7, 1.8, 1.9 (IEEE Std 344-75); Appendix I, Paragraph 3.5 G-321-D 7.0 PAR	M-19-20-3, 1/3/79, Level 1	M-19-20-3, 1/3/79, Level 1	Start Ship: 10/79F Rerev: Not required. | 8
		Environmental-IEEE Std 323-74*/**	Subparagraphs 4.1.1.h, 4.2.2, 4.5.3, 10.3.3.c (IEEE Std 323-74); Appendix H, Subparagraph 1.6.1, 1.7, 1.8, 1.9 (IEEE Std 323-74); Appendix I, Articles 3.0, 4.0; E-10, Rev 9, Subparagraph 11.3a,b (IEEE Std 323-74, IEEE Std 334-74)	M-19-26-2 4/3/79 Level 3 | 8	Expected 10/1/79 | 8	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
M-020/M-020, Rev 2 (8/01/77)	Traveling water screens (FMC)	Seismic- IEEE Std 344-75*/**	Page 3, MR, Paragraphs 1.c and 1.d; Attachment 2, Subparagraphs 3.B.9, 4.A.1, 5.E.6, 6.A.1; Appendix B, Articles 1.A.27, 2.A, 2.B, 4.C, 5.B; E-10, Paragraphs 2.10, 3.1 (IEEE Std); G-5, Paragraphs 2.0 (IEEE Std); G-30, Paragraph 1.0; Subparagraphs 1.1.1, 1.7 (IEEE 344-75) G-321-D 7.0 PAR	M-20-21-3, 3/13/79, Level 1	M-20-21-3, 3/13/79, Level 1	Start Ship: 11/10/78A Rerev: Not required Motors and controls are not Class 1E.	8
		Environmental-none*		Not required	Not required		
M-51/M-51, Rev 4 (2/5/74)	Component cooling water heat exchangers (Yuba)	Seismic- IEEE Std 344-71*	Paragraphs 4.12, 7.4.b, Appendix 1, 2.0, 5.0 (G-7, Rev 4)	M-51-51, 2/18/76, acceptable	M-51-51, 2/18/76, acceptable	Start Ship: 3/10/78A Rerev: Complete. NCR 1768	
		Environmental- none*	Articles 3.0, 3.1.2, 3.2.3, Appendix 1	Not required (see FSAR Table 3.11-4, Test 16)	Not required		
M-052/M-052, Rev 5 (5/13/74)	Component cooling water pump motors (B&W Canada)	Seismic- IEEE Std 344-71*	Paragraphs 4.4 (G-7, Rev 4), 4.9, 7.4; E-10, Rev 8, 2.10, 3.1	M-52-27-8, 1/30/78, Level 1	M-52-27-8, 1/30/78, Level 1	Start Ship: 12/21/77A Rerev: Inprocess. NCR 1769	
		Environmental- IEEE Std 323-74*	Subparagraphs 3.1.2, 3.3.2, 4.10.1, 4.10.16, 4.11.2; E-10, Rev 8, Paragraphs 2.9, 3.1			Telex received 5/23/79. Siemens-Allis is presently proceeding with test program.	8

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-53/M-53, Rev 5 (5/20/77)	Component cooling water pumps (Bingham-Willamette)	Seismic- IEEE Std 344-75*/**	Paragraphs 2.2, 5.4.1, 3.2.5, 5.5 (IEEE Std 344-75); Appendix A, Articles 2.0, 5.0 (G-7, Rev 5) G-321-D 7.0 PAR	M-53-24-5, 12/30/78, Level 1	M-53-24-5, 12/30/78, Level 1	Start Ship: 5/1/78A Rerev: Complete |8
		Environmental- IEEE Std 323-74*/**	Paragraphs 2.2, 5.4.1; Subparagraphs 5.1.2; Appendix A, 3.0	Not required |8	Not required |8	
M-54/M-54, Rev 5 (2/[illegible]/74)	Reactor building spray pumps (B&W Canada)	Seismic- IEEE Std 344-71*	Subparagraph 4.5.1, 4.5.2 (E-10), Section 10.3 (G-9) G-321-D 7.0-PAR	M-54-25-3, 1/16/75, Level 1 M-54-54-1, 1/16/75, Level 1 M-54-55, 1/16/75, Level 1	M-54-25-3, 1/16/75, Level 1 M-54-54-1, 1/16/75, Level 1 M-54-55, 1/16/75, Level 1	Start Ship: 1/20/78A Rerev: Complete. NCR 1770
		Environmental- IEEE 323-71*	Subparagraphs 2.1.2, 2.2	Not required (see FSAR Table 3.11-4, Test 16)	Not required	
M-55/M-55, Rev 4 (10/18/74)	Fuel pool cooling heat exchanger (Yuba)	Seismic- IEEE Std 344-71*	Subparagraphs 2.2 Item 7; 2.3.3; 4.3.9; 7.4b (IEEE Std 344); Appendix 1, Article 2.0 (G-7, Rev 4) G-321-D 7.0 PAR	M-55-27-2, 6/22/76, acceptable M-55-27-3, 7/25/77, acceptable	M-55-27-2, 6/22/76, acceptable M-55-27-3, 7/25/77, acceptable	Start Ship: 4/15/77A Rerev: Complete
		Environmental- none*	Subparagraphs 3.1.2, 3.2.2, 3.2.3.1, Appendix 1, Article 3.0	Not required (see FSAR Table 3.11-4, Test 16)	Not required	
M-56/M-56, Re[illegible] 3 [illegible]/75)	Fuel pool cooling and chilled water pumps (Gould)	Seismic- IEEE Std 344-71*	Subparagraphs 4.2.2, 4.5.2, 10.3; Appendix 1, 2.3, 5.0 (G-7, Rev 4) G-321-D 7.0 PAR	M-56-70-1, 10/27/77, unacceptable	M-56-70-1, 10/27/77, unacceptable	Start Ship: 2/11/79A Rerev: Complete. (seismic) |8

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				M-56-71-1, 10/27/77, unacceptable	M-56-71-1, 10/27/77, unacceptable	Not required. (environmental) NCR 1771
				M-56-72-1, 1/12/78, acceptable	M-56-72-1, 1/12/78, acceptable	
				M-56-73-1, 2/22/78, Level 1	M-56-73-1, 2/22/78, Level 1	
		Environmental-IEEE Std 323-74*/**	Appendix 1, Article 3.0	M-56-69-3, 3/20/79, Level 1 | 8	M-56-69-3, 3/20/79, Level 1 | 8	
M-61/M-61, Rev 2 (11/13/75)	Makeup filters (Pall Trinity)	Seismic-none*	Paragraph 6.5 (G-7, Rev 4) G-321-D 7.0 PAR	M-61-17-1, 6/15/77, Level 1	M-61-17-1, 6/15/77, Level 1	Start Ship: 5/8/78A, Rerev: Complete. NCR 1772
		Environmental-none*	Paragraphs 5.3 and 6.1 (Table 1 and Appendix A)	Not required (see FSAR Table 3.11-4, Test 16)	Not required	
M-64/M-64, Rev 6 (3/29/74)	Nuclear tanks (Richmond)	Seismic-none*	Subparagraphs 7.2.1.i (G-29, Rev 2; G-7, Rev 4)	M-64-32-4, 9/13/76, acceptable	M-64-32-4, 9/13/76, acceptable	Start Ship: 7/8/76A, Rerev: Inprocess. NCR 1773
				M-64-33-4, 4/15/76, acceptable	M-64-33-4, 4/15/76, acceptable	
				M-64-34-5, 6/22/78, acceptable	M-64-34-5, 6/22/78, acceptable	
				M-64-35-4, 4/15/76, acceptable	M-64-35-4, 4/15/76, acceptable	
				M-64-42-2, 11/25/74, acceptable	M-64-42-2, 11/25/74, acceptable	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				M-64-64-4, 5/3/79, acceptable | 8	M-64-64-4, 5/3/79, acceptable | 8	
				M-64-65-4, 5/3/79, acceptable | 8	M-64-65-4, 5/3/79, acceptable | 8	
		Environmental-none*	Paragraph 3.1 (temperature)	Not required (see FSAR Table 3.11-4, Test 16)	Not required	
M-75/M-75, Rev 5 (12/30/75)	Service water pumps (Gould)	Seismic-IEEE Std 344-75*/**	Paragraphs 4.1, 8.1 (IEEE Std); Subparagraphs 7.1.8-11. 9.3.2 (G-30, Rev 1); Article 13.0; Appendix 1, Article 2.0; Appendix 2, Paragraph 2.4 (G-30, Rev 1); Article 1.0 (IEEE Std 344-75)	M-75-21-6, 1/28/78, Level 1 (pumps) M-75-38-3, 8/22/78, Level 1 (motors)	M-75-21-6, 1/28/78, Level 1 (pumps) M-75-38-3, 8/22/78, Level 1 (motors)	Start Ship: 12/30/77A Rerev: Complete. NCR 1774
		Environmental-IEEE Std 323-74*/**	Paragraphs 4.1, 8.1 (IEEE Std); Appendix 1, Article 3.0; Appendix 2, Paragraph 3.0 G-321-D 7.0 PAR	M75-28-1, 11/28/77, Level 1 | 8	M-75-63-1, 4/24/79, Level 3 | 8	Request to vendor 4/23/79 requesting more data on motor testing. | 8
M-90/M-90, Rev 2 (5/17/77)	Incore instrument tank (CBI)	Seismic-none*	Paragraphs 5.12, 10.2.4, Article 7.0 (G-6, Rev 4); Appendix 1, Paragraphs 2.0, 2.3 (G-6, Rev 4) G-321-D 7.0 PAR	M-90-34-3, 6/27/78, Level 1	M-90-34-3, 6/27/78, Level 1	Shipped 4/1/78A Rerev: Complete
		Environmental-none*	Paragraphs 4.1; Appendix 1, Article 3.0 (G-26, Rev 1)	Not required (see FSAR Table 3.11-4, Test 16)	Not required	

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-92/M-92, Rev 4 (1/26/70)	Reactor building cranes (Harnischfeger)	Seismic-none*	Paragraph 3.2 (G-6); E-10, Rev 5, Paragraphs 2.10, 3.0 (G-7, Rev 4)	M-92-34-3, 3/7/78, In review	M-92-34-3, 3/7/78, In review	Start Ship: 3/14/75A Rerev: Inprocess. NCR 1775
		Environmental-none*	Paragraph 2.9; E-10, Rev 5, Paragraph 3.1	Not required (See FSAR Table 3.11-4 Test 16)	Not required	
M-93/M-93, Rev 3 (10/23/75)	Auxiliary building crane (Ederer)	Seismic-IEEE Std 344-75*	Paragraphs 3.2, 3.12 9.0, 10.2, (G-7, Rev 4) 4.22 (E-10) G-321-D 7.0-FSAR	M-93-1-3, 8/18/76, acceptable	M-93-1-3, 8/18/76, acceptable	Start Ship: 9/17/76A Rerev: Complete. NCR 1776: Dispositioned 4/20/79. |8
		Environmental-none*	Paragraph 4.22 (E-10)	Not required (see FSAR Table 3.11-4, Test 27)	Not required	
M-117/M-117, Rev 10 (3/13/74)	Nuclear service valve (Anchor/ Darling)	Seismic-IEEE Std 344-71*	M-221, Paragraph 3.1, Appendix 1, Paragraph A1.12 (RG 1.48); G-9, Paragraphs 4.2, 7.1 (IEEE Std 344-71)	M-117-40-3, 8/5/76, acceptable M-117-41-3, 8/5/76, acceptable	M-117-40-3, 8/5/76, acceptable M-117-41-3, 8/5/76, acceptable	Start Ship: 5/15/78A Rerev: Inprocess. NCR 1777
		Environmental-IEEE Std 323-74* IEEE Std 382-72*/** (solenoid valves inside containment) IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-221, Paragraph 3.1, 7.1; G-9, Paragraph 4.2 (IEEE Std 382-72);	M-117-54-2 Limitorque Test Report 600456 applicable, Anchor/Darling letter, 7/18/78, For information only.	Action by 6/15/79 |8 |8	Letter to Anchor/ Darling 11/3/78

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-118A/M-118A, Rev 4 (5/9/74)	Nuclear service gate and globe valves (E.B.V. Systems)	Seismic- IEEE Std 344-71*	M-221, Paragraph 3.1, Appendix A1, Paragraphs A1.11, A1.20, A1.23 (IEEE Std 344-71); Appendices B, C, D G-321-D 7.0 PAR	M-118A-55-2, 3/17/78, acceptable	M-118A-55- , 3/17/78, acceptable	Start Ship: 4/24/78A Rerev: Complete. NCR 1778
		Environmental- IEEE Std 323-74*	M221, Paragraph 3.1, Appendix 1, Paragraphs A1.4, A1.19.20			8
M-118B/M-118B, Rev 4 (5/9/74)	Nuclear service gate and globe valves (Rockwell International)	Seismic- IEEE Std 344-71*	M-221, Paragraph 3.1, Appendix A1, Paragraphs A1.11, A1.31; (G-32), Paragraphs 2.A, B, 8.C.6 (IEEE Std 344-75); Paragraph 5.5 G-321-D-7.0-PAR	M-118B-48-1, 6/6/77, acceptable	M-118B-48-1, 6/6/77, acceptable	Start Ship: 1/79A 8 Rerev: Inprocess. NCR 1779
		Environmental- IEEE Std 323-74* IEEE Std 382-72*/** (solenoid valves inside containment)	M-221-Sect 3.1, Paragraphs A1.4, A1.31 A1.34; Appendix A14, Article 5.0; G-32, Paragraph 2.A, B, 8.C.4-5; (IEEE Std 323-72, IEEE Std 382-72)	M-118B-81-2, 4/3/79, Level 1 8	M-118B-81-2, 4/3/79, Level 1 8	
M-120/M-120, Rev 3 (7/6/74)	Nuclear valves, 2 1/2" and larger (Anchor/ Darling)	Seismic- IEEE Std 344-71*	M-221, Article 3.1, Paragraph 3.1, Appendix 1 Paragraph A1.4; G-9, Paragraphs 4.2, 7.1, (IEEE Std 344) G-321-D-7.0-PAR	M-120-77-2, 8/5/76, acceptable	M-120-77-2, 8/5/76, acceptable	Start Ship: 9/1[illegible]/78A Rerev: Comp.ete. NCR 1[illegible]30
				M-120-95-1 through 97-1, 8/5/76, acceptable	M-120-95-1 through 97-1, 8/5/76, acceptable	
				M-120-105-1, and -106-1, 12/9/77, acceptable	M-120-105-1, and -106-1, 12/9/77, acceptable	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				M-120-107-2, 6/16/78, Level 1	M-120-107-2, 6/16/78, Level 1	
		Environmental- IEEE Std 323-74* IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-221, Paragraph 3.1 Appendix 1, Paragraph A1.1; G-9, Section 4.2, 7.1, (IEEE 382-72, 323-71)	M-120-86-2, Limitorque Test Report 600456 applicable, Anchor/Darling letter 7/18/78. For information only. 8	Action by 6/15/79 8	
M-123A/123A, Rev 2 (5/24/74)	Nuclear valves, 2 1/2" and larger (Westinghouse)	Seismic- IEEE Std 344-71*	M-221, Article 3.1 Appendix 1, Paragraphs A1.14, G-9, Paragraphs 4.2, 7.1 (IEEE Std 344) Appendix 7, 4.2 G-321-D 7.0 PAR	M-123A-93-2, 1/25/77, acceptable		Start Ship: 4/30/76A Rerev: In-process. 8
		Environmental- IEEE Std 323-74* IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-221, Article 3.1 Appendix 1, Paragraphs A1.1, G-9, Paragraphs 4.2, 7.1 (IEEE Std 323 and 382) G-321-D 26.0 PAR	M-123A-96-2, Limitorque Test Report 600456 applicable, Westinghouse letter 1/16/78 Level 1 8	Action by 6/15/79 8	
M-123B/M-123B, Rev 2 (10/25/75)	Nuclear valves, 2 1/2" and larger (Target Rock)	Seismic- IEEE Std 344-75*/**	M-221, Paragraph 3.1, Table 1, 3; Appendix 1, A1.4 (RG 1.48); G-9, Paragraphs 4.2, 7.1 (IEEE Std 344) G-321-D-7.0-PAR	M-123B-48-1, 5/19/77, Level 1	M-123B-48-1, 5/19/77, Level 1	Start Ship: 4/30/77A Rerev: Complete. NCR 1781
		Environmental- IEEE Std 323-74*/** IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-221, Article 3.1 Appendix 1, Paragraphs 1.1; G-9, Paragraphs 4.2, 7.1 (IEEE Std 323 and 382) G-321-D 7.0 PAR	M-123B-54-2 Limitorque Test Report 600456 applicable, Target Rock letter 5/23/78, CN5491 Level 1 8	Action by 6/15/79 8	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-123C/M-123C, Rev 2 (10/25/74)	Nuclear valves, 2 1/2" and larger (Anchor/ Darling)	Seismic- IEEE Std 344-71*	M-221, Paragraph 3.1; Table 1, 3; Appendix 1, A1.4 (RG 1.48) G-9, Paragraphs 4.2, 7.1 (IEEE Std 344) G-321-D 7.0-PAR	M-123C-44-1, 8/5/76, acceptable	M-123C-44-1, 8/5/76, acceptable	Start Ship: 4/12/78A Rerev: inprocess. NCR 1782
		Environmental- IEEE Std 323-74* IEEE Std 382-72*	M-221, Paragraph 3.1; Appendix 1, A1.1; G-9, Paragraphs 4.2, 7.1 (IEEE Std 323 and 382)	M-123C-37-2, 12/19/78, Limitorque Test Report 600456 applicable, Anchor/Darling letter 7/18/78. For information only 8	Action by 6/15/79 8	
M-125A/M-125A, Rev 3 (6/14/74)	Nuclear valves, globe and check (Westing- house)	Seismic- IEEE Std 344-71*	M-221, Paragraph, 3.1, Appendix 1, A1.4, (RG 1.48); G-9, Paragraph 4.2, (IEEE Std 344) G-321-D 7.0-PAR	M-125A-88-2, 12/13/76, acceptable	M-125A-88-2, 12/13/76, acceptable	Start Ship: 9/28/76A Rerev: Complete. NCR 1783 Request to vendor 11/11/77
		Environmental- IEEE Std 323-74* IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-221, Article 3.1, Appendix 1, Paragraph A1.1; G-9, Paragraphs 4.2, 7.1 (IEEE Std 323 and 382)	M-125A-92-1 Limitorque Report 600456 applicable, Westinghouse letter 1/16/78, Level 1 8	Action by 6/15/79 8	
M-125B/M-125, Rev 3 (6/21/74)	Nuclear check valves (Target Rock)	Seismic- IEEE Std 344-71*	M-221, Paragraph 3.1; Table 1, Appendix 1, A1.4; G-9, Rev 1, 4.0 (IEEE Std 344) G-321-D 7.0-PAR	M-125B-26-1 through 32-1, 10/16/75, Level 1	M-125B-26-1 through 32-1, 10/16/75, Level 1	Start Ship: 1/5/77A Rerev: Complete. NCR 1784: Dispositioned 4/20/79. 8
		Environmental-none*		Not required	Not required	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-125C/M-125, Rev 3 (6/21/74)	Nuclear service valves 2-1/2" and larger (Anchor Darling)	Seismic- IEEE Std 344-71*	M-221, Paragraph 3.1, Table 1, 3; G-9, Paragraphs 4.2, 7.1 (IEEE Std 3 G-321-D 7.0-PAR	M-125C-54-3, 11/9/79, Level 1 | 8	M-125-C-54-3, 11/9/79, Level 1 | 8	Start Ship: 4/12/78A Rerev: Complete. NCR 1785
				M-125C-59-1 through -62-1, 8/5/76, acceptable	M-125C-59-1 through -62-1, 8/5/76, acceptable	
				M-125C-92-1, 2/1/78, Level 1	M-125C-92-1, 2/1/78, Level 1	
		Environmental- IEEE Std 323-74* IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-221, Paragraph 3.1, Appendix 1, Subparagraph A1.1; G-9, Paragraphs 4.2, 7.1 (IEEE Std 323 and 382)	M-125C-111 Limitorque Test Report 600456 Anchor/Darling letter 7/18/78, Level 1 | 8	Action by 6/15/79 | 8	
M-127A/M-127, Rev 4 (9/16/74)	Nuclear manual and air-operated valves 2" and under (Kerotest)	Seismic- IEEE Std 344-71*	M-225, Paragraph 3.2, 16.4, Appendix A1, Paragraph A1.3; G-9, Paragraphs 4.2, 7.1, (IEEE), G-10, 11.3 G-321-D 7.0 PAR	M-127A-20-1, 9/20/76, acceptable	M-127A-20-1, 9/20/76, acceptable	Start Ship: 3/31/78A Rerev: Complete. NCR 1786 operated valves on surplus.
		Environmental- none*		Not required (manual valves)	Not required (manual valves)	
M-127B/M-127, Rev 3 (9/16/74)	Nuclear manual operated valves 2" and under (Henry Vogt)	Seismic- IEEE Std 344-71*	M-225, Paragraphs 3.2, 16.4.4c; Appendix A1, Paragraph A1.3 G-321-D 7.0-PAR			Start Ship: 9/18/78A Rerev: Complete. NCR 1787 Request to vendor 4/11/77 Vendor response 4/18/77 | 8
		Environmental- none*	M-225 Paragraph 3.2; Appendix A1, Paragraph A1.1, A1.9; G-26	Not required	Not required	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
M-127C/M-127, Rev 3 (9/17/74)	Nuclear manual operated valves 2" and under (Yarway)	Seismic- IEEE Std 344-71*	M-225, Paragraphs 3.2, 16.4.4c; Appendix A1 Paragraph A1.3 G-321-D 7.0-PAR	M-127C-11-1 11/6/75, Level 5		Start Ship: 10/13/78A Rerev: Complete. NRC 1788 Request to vendor 4/5/77 Vendor response 4/22/77	8
		Environmental- none*	M-225, Paragraph 3.1, Appendix A1, Paragraph A1.1, Appendix A1, Paragraph A1.9; G-26				
M-129A/M-129, Rev 2 (9/16/74)	Nuclear valves, sst, 2" and under (Kerotest)	Seismic- Std 344-71*	M-225, Article 3.2, Appendix A1, Paragraph A1.3; G-9, Paragraphs 4.2, 7.1 (IEEE), G-10 Article 11.3 G-321-D 7.0-PAR	M-129A-63-1, 9/20/76, acceptable	M-129A-63-1, 9/20/76, acceptable	Start Ship: 2/15/78A Rerev: In-process.	8
		Environmental- IEEE Std 323-74* IEEE Std 382-72*	Appendix A1, A1.1; G-9, Paragraphs 4.2, 7.1 G-26; G-10, Paragraph 11.3 G-321-D 26.0 PAR	Action by 6/15/79	8 Action by 6/15/79	8	
M-129B/M-129, Rev 1 (9/16/74)	Nuclear valves, sst, 2" and under (Weston Hydromatics)	Seismic- IEEE Std 344-71*	M-225, Paragraphs 3.2, 3.2.3; G-9, Paragraphs 4.2, 7.1 (IEEE Std 344); G-10, Paragraph 11.3 G-321-D 7.0-PAR	M-129B-31-1, 6/25/76, acceptable	M-129B-31-1, 6/25/76, acceptable	Start Ship: 2/15/78A Rerev: Inprocess. All valves currently surplus.	
				M-129B-32-5, 3/20/79, Level 1	8 M-129B-32-5, 3/20/79, Level 1	8	
				M-129B-33-2, 11/18/76, acceptable	M-129B-33-2, 11/18/76, acceptable		
		Environmental- IEEE Std 323-74* IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-225, Paragraph 3.2, Appendix A1, Paragraph A1.1; G-9, Paragraphs 4.2, 7.1 (IEEE Std 382); G-26; G-10, Paragraph 11.3 G-321-D 26.0 PAR	Limitorque Report 600456 (382) and 600461 (382)	8	Letter to vendor 7/17/78. TWX to vendor 1/17/79. Reply from vendor 3/1/79.	8

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-131/M-131, Rev 2 (7/7/78)	Diaphram valves (ITT Grinnell)	Seismic- IEEE Std 344-75*/**	Paragraph 3.B.1.C, 4.A.1, 5.B; Attachment E, Article 1.0; Table C-1 G-321-D 7.0-PAR	Action by 6/30/79 |8	Action by 6/30/79 |8	Start Ship: On strike since 4/28/79. One valve shipped. Rerev: Not required |8
		Environmental- IEEE Std 323-74*/**	Paragraphs 4.A.1, 4.A.4, Appendix A; Article 3.0 Attachment E, Table C-1	Action by 6/30/79 |8	Action by 6/30/79 |8	
M-132/M-132, Rev 3 (11/27/74)	Butterfly valves (H. Pratt)	Seismic- IEEE Std 344-71*	M-228, Paragraph 3.1, Appendix 1, Section A1.3, (RG 1.48) G-321-D 7.0-PAR	M-132-67-3, through -72-3, 9/7/76, acceptable	M-132-67-3, through -72-3, 9/7/76, acceptable	Start Ship: 11/22/76A Rerev: Complete. NCR 1789
				M-132-83-1 and -84-1, 9/24/76, acceptable	M-132-83-1 and -84-1, 9/24/76, acceptable	
				M-132-87-1 through -92-1, 10/12/76, acceptable	M-132-87-1 through -92-1, 10/12/76, acceptable	
				M-132-99-2 through -103-2, 5/12/77, acceptable	M-132-99-2 through -103-2, 5/12/77, acceptable	
				M-132-105-2, 3/3/78, Level 1	M-132-105-2, 3/3/78, Level 1	
				M-132-106-1, 3/3/78, Level 1	M-132-106-1, 3/3/78. Level 1	
		Environmental- IEEE Std 323-74*/** IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	M-228, Paragraph 3.1; Appendix 1. Paragraph A1.1	M-132-108-1, 3/20/79 Level 1 |8	M-132-108-1, 3/20/79 Level 1 |8	

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure		Qualification Test Results		Status	
M-134/M-134, Rev 3 (1/7/77)	Steel plug valves (Tufline)	Seismic- IEEE Std 344-75*/**	Section 3.B.1.C, 4.A.1, 5.B; G-9, Paragraph 4.2 (IEEE Std 344-71) G-321-D 7.0 PAR	M-134-36-1 through -45-1, 6/9/78, Level 1		M-134-36-1 through -45-1, 6/9/78, Level 1		Start Ship: 3/23/79A Rerev: Inprocess. NCR 1790	8
				M-134-46-2, 7/10/78, Level 1		M-134-46-2, 7/10/78, Level 1			
		Environmental- IEEE Std 323-74*/** IEEE Std 382-72*	Appendix C, Article 3.0; G-9, Paragraphs 4.2, (IEEE Std 382) 7.1	M-134-85-1, 11/15/78, Level 1	8	M-134-85-1, 11/15/78, Level 1	8		
M-140/M-140, Rev 2 (5/6/77)	Nuclear service pressure relief valves (Crosby)	Seismic-none* IEEE Std 344-75*/** (1 and 2 PSV-1016 only)	Page 5, Item 18; Attachment 1.0, Paragraph 3.6; Appendix D, Paragraphs 2.4, 2.5 G-321-D 7.0-PAR	M-140-70-1, 4/26/78, Level 1		M-140-70-1, 4/26/78, Level 1		Start Ship: 6/30/79F Rerev: Complete	8
				M-140-76-3, M-140-80-3, M-140-81-3, M-140-82-3, M-140-83-3, M-140-84-3, 1/19/79, Level 1		M-140-76-3, M-140-80-3, M-140-81-3, M-140-82-3, M-140-83-3, M-140-84-3, 1/19/79, Level 1			
				M-140-77-3, 1/19/79, Level 2		M-140-77-3, 1/19/79, Level 2			
				M-140-78-4, 2/20/78, Level 2	8	M-140-78-4, 2/20/78, Level 2	8		
				M-140-79-4, 3/29/79, Level 1		M-140-79-4, 3/29/79, Level 1			
				M-140-85-4, 4/30/79, Level 1		M-140-85-4, 4/30/79, Level 1			
				M-140-86-3, 1/19/79, Level 3		M-140-86-3, 1/19/79, Level 3			

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
		Environmental-none*	Section 3.2, Appendix D, Paragraphs 2.1, 3.0, Appendix F	Expected by 7/79 |8	Expected by 7/79 |8	
M-146/M-146, Rev 2 (6/19/75)	Auxiliary building safeguard chiller (Carrier)	Seismic-IEEE Std 344-71*	Section 3.5 10.3.1.1, 5.16 (G-7); E-10, Paragraph 2.10 (G-7 Rev 4); Section 3.1 (IEEE Std) G-321-D 7.0-PAR	M-146-16-2, 1/23/76, Level 1 |8	M-146-16-2, 1/23/76, Level 1 |8	Start Ship: 10/29/76A Rerev: Inprocess. NCR 1791 Requests to vendor 1/25/77 and 4/26/77
		Environmental-IEEE Std 323-74*/**	Section 3.5; M-146-Sk-1, Section 1.11; E-10 Section 3.1 (IEEE Std)	Not required (see FSAR Table 3.11-1, Test 16)	Not required	
M-149/M-149, Rev 5 (1/22/76)	Air handling unit (Trane)	Seismic-IEEE Std 344-75*/**	Paragraph 6.17 (G-7); Section 7.1 (IEEE Std 344-71); Appendix N, Articles 9.0, 11.0 (G-7, Rev 4) E-10, Article 3.0 G-321-D 7.0-PAR	M-149-63-4, 4/1/77, acceptable	M-149-63-4, 4/1/77, acceptable	Start Ship: 7/1/77A Rerev: Inprocess. NCR 1792 Requests to vendor 1/25/77 and 4/5/77
				M-149-66-1, -72-1, and -74-1, 10/4/76, acceptable	M-149-66-1, -72-1, and -74-1 10/4/76, acceptable	
		Environmental-IEEE Std 323-74*/**	Appendix N, Articles 2.0, 9.0; E-10, Article 3.0 (IEEE Std) G-321-D 26.1 PAR G-321-D 26.2 PAR	Not required (see FSAR Table 3.11-4, Test 16)	Not required	
M-150/M-150, Rev 7 (4/30/76)	Air filtering unit (MSA)	Seismic-IEEE Std 344-75*/**	Paragraph 6.10 (G-7) Appendix A, Items 1, 2, and 3, Page 1 G-321-D 7.0-PAR	M-150-51-4, 11/23/76, acceptable	M-150-51-4, 11/23/76, acceptable	Start Ship: 2/15/78A Rerev: Complete. NCR 1793 Requests to vendor 1/25/77 and 4/6/77; telecopy 8/17/77

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure		Qualification Test Results		Status	
				M-150-64-4, 12/19/78, Level 1		M-150-64-4, 12/19/78, Level 1		Procedures expected by 4/20/79. Test results will take 8 months according to Wyle lab schedule.	
		Environmental- IEEE Std 323-74*/** IEEE Std 334-74* IEFE Std 334-71**	Appendix A G-321-D 26.1 PAR G-321-D 26.2 PAR	M-150-142-2, 11/28/78, Level 1	8	M-150-142-2, 11/28/78, Level 1	8		
M-151A/M-151, Rev 4 (10/5/77)	HVAC subcontract (Zack)	Seismic- none*	Paragraphs 11.2.2, 1.2.3, 1.3j, 6.2, 6.4; C-305, Table 2.1; Appendix G G-321-D 7.0 PAR					Start Ship: 10/26/77A Rerev: Not required. Telex to vendor 11/6/78 requesting seismic qualification. Telecon 4/2/79 to expedite submittal.	
		Environmental- none*							
M-154/M-154, Rev 1 (9/26/77)	HVAC isolation valves (Pacific Air)	Seismic- IEEE Std 344-75*/**	Section 3.1, 5.3.1f (IEEE Std 344); Paragraph 5.1.1, 6.0, 10.3.3; G-9, Sections 4.2, 7.1 (IEEE Std) G-321-D 7.0 PAR	M-154-38-4, 3/20/79, Level 1		M-154-38-4, 3/20/79, Level 1		Start Ship: 5/15/79F (delayed). Rerev: Complete	8
				M-154-39-3, 1/24/79; Level 1	8	M-154-39-3, 1/24/79, Level 1	8		
				M-154-40-3, 3/22/79, Level 1		M-154-40-3, 3/22/79, Level 1			
				M-154-41, 1/22/79, Level 1		M-154-41, 1/22/79, Level 1			

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
				M-154-43-3 4/9/79, Level 1	M-154-43-3 4/9/79, Level 1	
		Environmental- IEEE Std 2323-74*/** IEEE Std 382-72*	Section 3.1, 5.3.1, 7.3.4C (IEEE Std 323-) G-9, Paragraphs 4.2, 7.1 (IEEE Std)	M-154-40-3, 3/22/79, Level 1	M-154-40-3, 3/22/79, Level 1	8
M-157/M-157, Rev 4 (9/20/76)	Vane axial fans (Joy)	Seismic- IEEE Std 344-75*/**	Paragraphs 3.6, 5.5.10, 5.9 (G-7, G-29): Subparagraph 9.2.7d; G-7, Rev 4; G-29, 1.1.1 (IEEE Std 344-75) G-321-D 7.0-PAR	M-157-33-1 through -39-1, 6/15/77, acceptable	M-157-33-1 through -39-1, 6/15/77, acceptable	Start Ship: 9/6/77A Rerev: Complete
				M-157-39-1, 6/28/78, acceptable	M-157-39-1, 6/28/78, acceptable	
		Environmental- IEEE Std 323-74*/** IEEE Std 334-74* IEEE Std 334-71*	Section 3.6, 5.5.10, (IEEE 323-74, 334) G-321-D 26.1 PAR G-321-D 26.2 PAR	M-157-24-1 through -26-1, 5/9/77, Level 1	M-157-24-1 through -26-1, 5/9/77, Level 1	
M-163/M-163, Rev 2 (11/15/75)	Recirculating air cooling units CVI (Penwalt)	Seismic- IEEE Std 344-75*/**	Sections 6.4.1, 8.3.2d, 4.1.j (IEEE Std) Section 6.8 (G-6, Rev 4)	M-163-40-2, 10/25/77, acceptable	M-163-40-2, 10/25/77, acceptable	Start Ship: 3/9/78A Rerev: Inprocess. NCR 1794
		Environmental- IEEE Std 323-74*/** IEEE Std 334-74* IEEE Std 334-71**	Section 4.1.j (IEEE Std); Section 6.3.4, 8.3 (IEEE Std 323); Section 4.1.j, 7.2.2, (IEEE Std 334-71); G-26; E-10, Paragraphs 2.9, 2.10	M-163-22-2, 6/9/77, Level 1	M-163-22-2, 6/9/77, Level 1	
				M-163-48-3, 4/7/78, Level 1	M-163-48-3, 4/7/78, Level 1	
M-168/M-168, Rev 6 (9/22/76)	Reactor building isolation 18" and 48" valves (H. Pratt)	Seismic- IEEE Std 344-75*/**	Paragraph 5.3, Appendix A, Article 8.0, Appendix C, Appendix H; G-9, Paragraphs 4.2, 7.1 (IEEE Std 344-75)	M-168-48-1, 3/24/78, Level 1	M-168-48-1, 3/24/78, Level 1	Start Ship: 10/16/78A Rerev: Complete. NCR 1795 8
				M-168-48-1, 9/8/78, Level 1	M-168-48-1, 9/8/78, Level 1	

MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status	
				M-168-49-1, 9/8/78, Level 1	M-168-49-1, 9/8/78, Level 1		
		Environmental- IEEE Std 323-74*/** IEEE Std 382-72* IEEE Std 382-72, Draft 13** (motor operated valves inside containment)	Article 5.1 (G-26); G-9, Section 4.2, 7.1 (IEEE Std 382); G-6 G-321-D 7.0 PAR G-321-D 26.0 PAR	M-168-46-1, 9/7/78, Level 1	M-168-46-1, 9/7/78, Level 1		
				M-168-47-1, 9/7/78, Level 1	M-168-47-1, 9/7/78, Level 1		
M-169/M-169, Rev 2 (7/8/77)	Electric hydrogen recombiners (Westinghouse)	Seismic- IEEE Std 344-75*/**	Paragraphs 6.8, 9.2.7c, Section 4.2 (IEEE Std 344-75); G-7, Rev 4; G-6, Rev 4 G-321-D 7.0 PAR	M-169-39-1 through -41-1, 1/23/78, Level 1	M-169-39-1 through -41-1, 1/23/78, Level 1	Start Ship: 1/78A Rerev: In-process. NCR 1796	8
		Environmental- IEEE Std 323-74*/** IEEE Std 334-74*	Section 4.2, (IEEE Std 323-74) Section 6.2 (RG 1.17) G-26, Rev 1	M-169-5-2 and -6-2, 11/1/77, Level 1	M-169-5-2 and -6-2, 11/1/77, Level 1		
				M-169-7-2, 1/23/78, Level 1	M-169-7-2, 1/23/78, Level 1		
				M-169-8-1 and -9-1, 9/20/77, Level 5	M-169-8-1 and -9-1, 9/20/77, Level 5	For information only	8
				M-169-10-1 and -11-1, 9/26/77, Level 5	M-169-10-1 and -11-1, 9/26/77, Level 5	For information only	8
				M-169-18-1, 11/10/77, Level 1	M-169-18-1, 11/10/77, Level 1		8

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status
M-180/M-180, Rev 2 (5/12/77)	Service water self-cleaning strainers (S.P. Kinney)	Seismic-IEEE Std 344-75*/**	Section 4.1.10 (IEEE Std 344); Paragraphs 5.4, 6.5 (G-30); Section 6.8.2 (shafts); Appendix A, Section A2.0 (G-30); A2.0; G-30, Rev 0 G-321-D 7.0 PAR	M-180-16-5, 5/10/78, Level 1	M-180-16-5, 5/10/78, Level 1	Start Ship: 6/30/79F Rerev: In-process. | 8
				M-180-27-3, 5/18/78, Level 1	M-180-27-3, 5/18/78, Level 1	
				M-180-34-3, 4/5/79, in review. | 8	M-180-34-3 4/5/79, in review. | 8	
		Environmental-IEEE Std 323-74*/**	Section 4.1.10 (IEEE Std 323-74); Appendix A, Section A3.0, E-10, Section 11.3a (IEEE Std 323-74 and 334-74) G-321-D 26.1 PAR G-321-D 26.2 PAR	M-180-27-3, 5/18/78, Level 1	M-180-27-3, 5/18/78, Level 1	Request to vendor 7/7/78 (still some items) | 8
M-333/M-333, Rev 3 (11/26/77)	Nuclear service pressure relief valves (Crosby)	Seismic-IEEE Std 344-75*	Section 2.4, 2.5; Appendix K; Appendix D, 2.4 G-321-D 7.0-PAR	M-333-17-2, 2/20/79, Level 1 | 8	M-333-17-2, 2/20/79, Level 1 | 8	Start Shp: 6/15/79F Rerev: Complete
		Environmental-none*	Section 2.0, 3.0; Appendix E; Appendix A, 2.0; Appendix D, 3.0 G-321-D 26.1 PAR	M-333-11-1, 5/1/78, Level 1	M-333-11-1, 5/1/78, Level 1	
MR-336/M-336, Rev 1 (8/8/77)	Nuclear wye strainers (Leslie Co.)	Seismic-IEEE Std 344-75*	Attachment F, Sheets 1-4; Attachment G	M-33627-2, 4/26/78, Level 1	M-336-27-2, 4/26/78, Level 1	Start Ship: 4/3/78A Rerev: Complete
				M-336-27-2, 4/17/78, Level 1	M-336-27-2, 4/17/78, Level 1	
		Environmental-none*	Appendix A, Section 3.3, Attachment			

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MR/ Specification (Original P.O. Date)	Item and Manufacturer	Issued IEEE Qualification Standards* and FSAR Qualification Commitments**	Specification Qualification Reference	Qualification Test Procedure	Qualification Test Results	Status

* Issued IEEE qualification standard: the latest IEEE qualification standard that was approved and issued on the date the purchase order was executed. For this purpose, the following issue dates were used:

IEEE Standard	Date Issued
317-72	12-1-72
317-76	5-24-76
323-71	4-1-71
323-74	2-28-74
334-71	9-16-71
334-74	10-29-74
344-71	11-17-71
344-75	1-31-75
382-72	4-10-73
383-74	4-15-74

** FSAR qualification commitment: any commitment made in the Midland FSAR relative to which IEEE qualification standard(s) would be used in qualifying a particular piece of equipment.

Reference	Equipment Affected	Commitment	Effectivity Date
RG 1.40	Containment recirculation air cooler motors	IEEE 344-71	3-16-73
RG 1.48	Seismic Category I active pumps and valves	IEEE 344-75	7-1-75
RG 1.52	Atmospheric cleanup system air filtration and absorption units	IEEE 323-71 334-71 344-71	6-73
RG 1.73	Class 1E solenoid valves installed inside containment	IEEE 382-72	4-10-73
	Class 1E motor operated valves installed inside containment	IEEE 382-72, draft 13	
RG 1.89	Class 1E equipment	IEEE 323-74	11-15-74
FSAR Table 3.11-1	Class 1E equipment	IEEE 344-75	Not specified
RG 1.100		IEEE 344-71	Not specified
FSAR Subsection 3.10-4			

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