

New Hampshire Yankee

Ted C. Feigenbaum
President and
Chief Executive Officer

NYN- 92024

March 2, 1992

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

References: (a) Facility Operating License No. NPF-86, Docket No. 50-443
(b) USNRC Generic Letter No. 89-10, dated June 28, 1989, "Safety-Related Motor-operated Valve Testing and Surveillance"
(c) USNRC letter dated February 2, 1992, Motor-Operated Valve Inspection at Seabrook Station Inspection Report 50-443/91-81

Subject: Motor Operated Valve Grouping, Selection, and Exclusion Criteria For Differential Pressure Testing

Gentlemen:

In response to your request for additional information [Reference (c)] pertaining to the New Hampshire Yankee (NHY) Motor Operated Valve Program, an Enclosure is provided.

Should you have any questions concerning our response, please contact Mr. James M. Paschel, Regulatory Compliance Manager at (603) 474-9521, extension 3772.

Very truly yours,


Ted C. Feigenbaum

TCF:PWS/ss

Enclosure

cc: Mr. Thomas T. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Mr. Noel Dudley
NRC Senior Resident Inspector
P.O. Box 1149
Seabrook, NH 03874

Mr. Gordon E. Edison, Sr. Project Manager
Project Directorate I-3
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, DC 20555

640076 New Hampshire Yankee Division of Public Service Company of New Hampshire
P.O. Box 300 • Seabrook, NH 03874 • Telephone (603) 474-9521

9203050225 920302
PDR ADOCK 05000443
PDR

Flao1
11

New Hampshire Yankee
March 2, 1992

ENCLOSURE TO NYN-92024

ENCLOSURE TO NYN-92024

NRC Request

Motor Operating Valve Testing - New Hampshire Yankee (NHY) needs to:

"Clarify the commitment regarding full dp testing, provide the exclusion, grouping and selection criteria used for MOV testing by March 1, 1992, and revise the program description as appropriate, and notify NRC of any planned changes to current commitments."

NHY Response

The NHY GL 89-10 MOV program presently includes 122 valves. A grouping criteria has been established to ensure that each MOV is categorized by the appropriate physical attributes that will affect the dynamic response of an MOV undergoing differential pressure test. The attributes that were considered by NHY to determine the final grouping criteria were:

VALVE

Type - Gate, Globe, or Butterfly

Size (Diameter) - 3", 4", 6", etc.

Pressure Class - 150 Lb, 300 Lb, 600 Lb, etc.

Manufacturer - Westinghouse, Velan, Walworth, etc.

ACTUATOR

Manufacturer - Limitorque and Rotork

Size/Type - SMB-1, SMB-0, SMB-00, etc.

Motor Size - 5 FtLb, 10 FtLb, 15 FtLb, etc.

Motor Speed - 1800 Rpm and 3600 Rpm

Overall Gear Ratio

Spring Pack Size - Light, Medium, Heavy, Etc.

SYSTEM

Fluid Medium - Steam, Pure Water, Sea Water, etc.

Design Differential Pressure

Using the above attributes, thirty-five separate groups were developed incorporating all the 122 MOV Program Valves. The grouping of the 122 GL 89-10 MOV's is provided in Attachment 1.

Upon the establishment of the 35 separate groups, each group was separately evaluated for differential pressure test feasibility. Where testing at or near design basis conditions was determined to be feasible, at least one valve was selected from the group and was scheduled to be tested during the GL 89-10 implementation window, i.e., prior to June 28, 1994. Where applicable, an alternate valve was also identified for scheduling flexibility. Valve selection within a group considers factors such as physical access, radiation exposure to test/maintenance personnel, and outage schedule. In several groups, more than one valve

was scheduled to be tested to evaluate repeatability of test results for similar valves. It should be noted that, as the NHY GL 89-10 program continues with its implementation, diagnostic results will be used, when applicable and whenever feasible, to test the most appropriate valve. A good example of this is that during the first refueling outage, one of four similar Main Steam Isolation Valve Bypass Valves was tested. The valve selected was the lowest thrusting valve determined by diagnostic test performed earlier in the outage. Valves currently selected for differential pressure testing are identified in Attachment 2. The data contained in Attachments 1 and 2 will be maintained current. As the design basis review continues throughout the implementation phase of the GL 89-10 program, margin enhancements may be performed on valve actuators or experience may be acquired during testing that could warrant an update to the test grouping. Adherence will be maintained to the basic grouping/selection methodology and overall percentage of valves to be tested. However, alternate valves may replace valves currently selected for test as outage schedules evolve and as operating experience warrants.

The last item that needed to be clarified was for NHY to provide the criteria for exclusion of any GL 89-10 MOV from differential pressure (d/p) testing.

Exclusion from differential pressure testing was deemed appropriate for only six of the thirty-five groups and one additional valve, SW-V-44 which was dropped from the GL 89-10 program. The basis for exclusion is provided in Attachment 3. The valves in the six test groups are:

Group 3	PORV Block Valves (RC-V-122, RC-V-124)
Group 8	Containment Building Spray Additive Tank Isolation Valves (CBS-V-38, CBS-V-43)
Group 16	Containment Building Spray Ring Isolation Valves (CBS-V-11, CBS-V-17)
Group 17	SI Accumulator Block Valves (SI-V-3, SI-V-17, SI-V-32, SI-V-47)
Group 19	RHR Pump Suction Isolation Valves (RC-V-22, RC-V-23, RC-V-87, RC-V-88)
Group 21	Containment Recirculation Sump Isolation Valves (CBS-V-8, CBS-V-14)
N/A	Intake Structure Isolation Valve to SW Pumphouse (SW-V-44)

The grouping methodology and selection/exclusion criteria described in this letter will be included in the NHY GL 89-10 program description, (NHY procedure ES1850.003).

New Hampshire Yankee
March 2, 1992

ATTACHMENT 1

MOTOR OPERATED GATE VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION							SYSTEM INFO	
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
1	GATE	Westinghouse	3	2500	LIMITORQUE	SMB	000	10 FT-LB	1800 rpm	Extra Heavy	Normal	WATER	2750
1-CS-V-149	GATE	Westinghouse	3	2500	LIMITORQUE	SMB	000	10 FT-LB	1800 rpm	Extra Heavy	36.5/1		
2	GATE	Westinghouse	3	2035	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Heavy	Fast	WATER	2750
1-CS-V-142	GATE	Westinghouse	3	2035	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Heavy	41/1		
1-CS-V-143	GATE	Westinghouse	3	2035	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Heavy	41/1	WATER	2750
3	GATE	Westinghouse	3	2500	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Heavy	Fast	WATER	2750
1-RC-V-122	GATE	Westinghouse	3	2500	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Heavy	41/1		
1-RC-V-124	GATE	Westinghouse	3	2500	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Heavy	41/1	WATER	2750
4	GATE	Velan	3	1500	LIMITORQUE	SMB	0	15 FT-LB	1800 rpm	Light	Normal	WATER	2500
1-CC-V-395	GATE	Velan	3	1500	LIMITORQUE	SMB	0	15 FT-LB	1800 rpm	Light	26.42/1		
1-CC-V-428	GATE	Velan	3	1500	LIMITORQUE	SMB	0	15 FT-LB	1800 rpm	Light	26.42/1	WATER	2500
1-CC-V-438	GATE	Velan	3	1500	LIMITORQUE	SMB	0	15 FT-LB	1800 rpm	Light	26.42/1	WATER	2500
1-CC-V-439	GATE	Velan	3	1500	LIMITORQUE	SMB	0	15 FT-LB	1800 rpm	Light	26.42/1	WATER	2500
5	GATE	Westinghouse	4	200	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Light	Fast	WATER	200
1-CS-LCV-112B	GATE	Westinghouse	4	200	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Light	23/1		
1-CS-LCV-112C	GATE	Westinghouse	4	200	LIMITORQUE	SB	00	15 FT-LB	3600 rpm	Light	23/1	WATER	200
6	GATE	Westinghouse	4	1750	LIMITORQUE	SB	00	15 FT-LB	1800 rpm	Heavy	Normal	WATER	1500
1-SI-V-111	GATE	Westinghouse	4	1750	LIMITORQUE	SB	00	15 FT-LB	1800 rpm	Heavy	49/1		
1-SI-V-112	GATE	Westinghouse	4	1750	LIMITORQUE	SB	00	15 FT-LB	1800 rpm	Heavy	49/1	WATER	1500
7	GATE	Westinghouse	4	2500	LIMITORQUE	SB/SMB	00	15 FT-LB	1800 rpm	Heavy	Normal	WATER	2750
1-SI-V-77	GATE	Westinghouse	4	2500	LIMITORQUE	SMB	00	15 FT-LB	1800 rpm	Heavy	38.6/1		
1-SI-V-102	GATE	Westinghouse	4	2500	LIMITORQUE	SMB	00	15 FT-LB	1800 rpm	Heavy	38.6/1	WATER	2750
1-SI-V-114	GATE	Westinghouse	4	2500	LIMITORQUE	SB	00	15 FT-LB	1800 rpm	Heavy	38.6/1	WATER	2750
1-SI-V-138	GATE	Westinghouse	4	2500	LIMITORQUE	SB	00	15 FT-LB	1800 rpm	Heavy	41/1	WATER	2750
1-SI-V-139	GATE	Westinghouse	4	2500	LIMITORQUE	SB	00	15 FT-LB	1800 rpm	Heavy	41/1	WATER	2750
8	GATE	Walworth	6	150	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	Normal	WATER	25
1-CBS-V-38	GATE	Walworth	6	150	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	36.5/1		
1-CBS-V-43	GATE	Walworth	6	150	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	36.5/1	WATER	25
9	GATE	Velan	6	900	LIMITORQUE	SMB	0	25 FT-LB	1800 rpm	Heavy	Normal	WATER	1550
1-FW-V-156	GATE	Velan	6	900	LIMITORQUE	SMB	0	25 FT-LB	1800 rpm	Heavy	69.56/1		
1-FW-V-163	GATE	Velan	6	900	LIMITORQUE	SMB	0	25 FT-LB	1800 rpm	Heavy	46.25/1	WATER	1550

MOTOR OPERATED GATE VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION							SYSTEM INFO	
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
10	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	10 FT-LB	1800 rpm	Light	Normal		
1-CBS-V-53	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	10 FT-LB	1800 rpm	Light	36.5/1	WATER	200
11	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	5 FT-LB	3600 rpm	Light	Fast		
1-CBS-V-49	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	5 FT-LB	3600 rpm	Light	36.5/1	WATER	200
1-CS-V-460	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	5 FT-LB	3600 rpm	Light	36.5/1	WATER	200
1-CS-V-461	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	5 FT-LB	3600 rpm	Light	36.5/1	WATER	200
1-CS-V-475	GATE	Westinghouse	6	200	LIMITORQUE	SMB	000	5 FT-LB	3600 rpm	Light	36.5/1	WATER	200
12	GATE	Westinghouse	8	600	LIMITORQUE	SMB	00	25 FT-LB	1800 rpm	Medium	Fast		
1-RH-V-21	GATE	Westinghouse	8	600	LIMITORQUE	SMB	00	25 FT-LB	1800 rpm	Medium	23/1	WATER	700
1-RH-V-22	GATE	Westinghouse	8	600	LIMITORQUE	SMB	00	25 FT-LB	1800 rpm	Medium	23/1	WATER	700
1-RH-V-35	GATE	Westinghouse	8	600	LIMITORQUE	SMB	00	25 FT-LB	1800 rpm	Medium	34.1/1	WATER	700
1-RH-V-36	GATE	Westinghouse	8	600	LIMITORQUE	SMB	00	25 FT-LB	1800 rpm	Medium	34.1/1	WATER	700
13	GATE	Westinghouse	8	200	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Light	Normal		
1-CBS-V-47	GATE	Westinghouse	8	200	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Light	34.1/1	WATER	200
1-CBS-V-51	GATE	Westinghouse	8	200	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Light	34.1/1	WATER	200
1-CS-LCV-112D	GATE	Westinghouse	8	200	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Light	34.1/1	WATER	200
1-CS-LCV-112E	GATE	Westinghouse	8	200	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Light	36.2/1	WATER	200
14	GATE	Westinghouse	8	2500	LIMITORQUE	SMB	0	25 FT-LB	1800 rpm	Heavy	Normal		
1-RH-V-32	GATE	Westinghouse	8	2500	LIMITORQUE	SMB	0	25 FT-LB	1800 rpm	Heavy	48.95/1	WATER	700
1-RH-V-70	GATE	Westinghouse	8	2500	LIMITORQUE	SMB	0	25 FT-LB	1800 rpm	Heavy	48.95/1	WATER	700
15	GATE	Westinghouse	8	2500	LIMITORQUE	SB	1	60 FT-LB	3600 rpm	Heavy	Fast		
1-RH-V-14	GATE	Westinghouse	8	2500	LIMITORQUE	SB	1	60 FT-LB	3600 rpm	Heavy	27.20/1	WATER	2750
1-RH-V-26	GATE	Westinghouse	8	2500	LIMITORQUE	SB	1	60 FT-LB	3600 rpm	Heavy	27.20/1	WATER	2750
16	GATE	Walworth	8	300	LIMITORQUE	SB	0	25 FT-LB	3600 rpm	Light	Fast		
1-CBS-V-11	GATE	Walworth	8	300	LIMITORQUE	SB	0	25 FT-LB	3600 rpm	Light	43.69/1	WATER	376
1-CBS-V-17	GATE	Walworth	8	300	LIMITORQUE	SB	0	25 FT-LB	3600 rpm	Light	43.69/1	WATER	376
17	GATE	Westinghouse	10	2500	LIMITORQUE	SBD	3	150 FT-LB	3600 rpm	Mixed	Fast		
1-SI-V-3	GATE	Westinghouse	10	2500	LIMITORQUE	SBD	3	150 FT-LB	3600 rpm	Light	38.34/1	WATER	2750
1-SI-V-17	GATE	Westinghouse	10	2500	LIMITORQUE	SBD	3	150 FT-LB	3600 rpm	Heavy	38.1/1	WATER	2750
1-SI-V-32	GATE	Westinghouse	10	2500	LIMITORQUE	SBD	3	150 FT-LB	3600 rpm	Light	37.28/1	WATER	2750
1-SI-V-47	GATE	Westinghouse	10	2500	LIMITORQUE	SBD	3	150 FT-LB	3600 rpm	Heavy	38/1	WATER	2750

MOTOR OPERATED GATE VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION							SYSTEM INFO	
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
18	GATE	Westinghouse	12	600	LIMITORQUE	SB	1	60 FT-LB	3600 rpm	Heavy	Fast		
1-CBS-V-2	GATE	Westinghouse	12	600	LIMITORQUE	SB	1	60 FT-LB	3600 rpm	Heavy	27.20/1	WATER	700
1-CBS-V-5	GATE	Westinghouse	12	600	LIMITORQUE	SB	1	60 FT-LB	3600 rpm	Heavy	27.20/1	WATER	700
19	GATE	Westinghouse	12	2500	LIMITORQUE	SMB	1	40 FT-LB	1800 rpm	Heavy	Normal		
1-RC-V-22	GATE	Westinghouse	12	2500	LIMITORQUE	SMB	1	40 FT-LB	1800 rpm	Heavy	150/1	WATER	700
1-RC-V-23	GATE	Westinghouse	12	2500	LIMITORQUE	SMB	1	40 FT-LB	1800 rpm	Heavy	150/1	WATER	700
1-RC-V-87	GATE	Westinghouse	12	2500	LIMITORQUE	SMB	1	40 FT-LB	1800 rpm	Heavy	103.7/1	WATER	700
1-RC-V-88	GATE	Westinghouse	12	2500	LIMITORQUE	SMB	1	40 FT-LB	1800 rpm	Heavy	103.7/1	WATER	700
20	GATE	Velan	12	150	LIMITORQUE	SB	1	40 FT-LB	3600 rpm	Light	Fast		
1-AS-V-175	GATE	Velan	12	150	LIMITORQUE	SB	1	40 FT-LB	3600 rpm	Light	30.46/1	STEAM	185
1-AS-V-176	GATE	Velan	12	150	LIMITORQUE	SB	1	40 FT-LB	3600 rpm	Light	30.46/1	STEAM	185
21	GATE	Velan	16	300	LIMITORQUE	SB	0	15 FT-LB	3600 rpm	Heavy	Normal		
1-CBS-V-8	GATE	Velan	16	300	LIMITORQUE	SB	0	15 FT-LB	3600 rpm	Heavy	102.6/1	WATER	70
1-CBS-V-14	GATE	Velan	16	300	LIMITORQUE	SB	0	15 FT-LB	3600 rpm	Heavy	102.6/1	WATER	70

MOTOR OPERATED GLOBE VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION							SYSTEM	INFO
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
22	GLOBE	Velan	.75"	1500	LIMITORQUE	SMB	000	2 FT-LB	1800 rpm	Extra Light	Normal		
1-RC-V-323	GLOBE	Velan	.75"	1500	LIMITORQUE	SMB	000	2 FT-LB	1800 rpm	Extra Light	47.85/1	WATER	2235
23	GLOBE	Yarway	1"	1500	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	Normal		
1-MSD-V-44	GLOBE	Yarway	1"	1500	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	57/1	STEAM	1000
1-MSD-V-45	GLOBE	Yarway	1"	1500	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	57/1	STEAM	1000
1-MSD-V-46	GLOBE	Yarway	1"	1500	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	57/1	STEAM	1000
1-MSD-V-47	GLOBE	Yarway	1"	1500	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	57/1	STEAM	1000
24	GLOBE	Yarway	2"	600	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	Normal		
1-CGC-V-14	GLOBE	Yarway	2"	600	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	47.85/1	WATER	55
1-CGC-V-28	GLOBE	Yarway	2"	600	LIMITORQUE	SMB	000	5 FT-LB	1800 rpm	Light	47.85/1	WATER	55
25	GLOBE	Velan	1.5/2"	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	Normal		
1-SI-V-89	GLOBE	Velan	1.5"	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	101.3/1	WATER	2750
1-SI-V-90	GLOBE	Velan	1.5"	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-SI-V-93	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-154	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-158	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-162	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-166	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-167	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-168	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-196	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-197	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
1-CS-V-426	GLOBE	Velan	2	1500	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	WATER	2750
26	GLOBE	Velan	3"	600	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	X-Light	Normal		
1-RH-FCV-610	GLOBE	Velan	3"	600	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	X-Light	52.2/1	WATER	200
1-RH-FCV-611	GLOBE	Velan	3"	600	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	X-Light	52.2/1	WATER	200
27	GLOBE	Edwards	4"	650	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	Normal		
1-MS-V-204	GLOBE	Edwards	4"	650	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	STEAM	1185
1-MS-V-205	GLOBE	Edwards	4"	650	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	STEAM	1185
1-MS-V-206	GLOBE	Edwards	4"	650	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	STEAM	1185
1-MS-V-207	GLOBE	Edwards	4"	650	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Heavy	109/1	STEAM	1185

MOTOR OPERATED GLOBE VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION							SYSTEM INFO	
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
28	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	Normal		
1-FW-FV-4214A	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4214B	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4224A	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4224B	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4234A	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4234B	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4244A	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
1-FW-FV-4244B	GLOBE	Masoneilan	4"	900	ROTORK	NA1	11	50 FT-LB	29 rpm	Specific	60/1	WATER	1560
29	GLOBE	Velan	4"	150	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	X-Light	Normal		
1-CC-V-434	GLOBE	Velan	4"	150	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	X-Light	24.8/1	WATER	100
30	GLOBE	Velan	4"	900	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Medium	Normal		
1-FW-V-346	GLOBE	Velan	4"	900	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Medium	77/1	WATER	1650
1-FW-V-347	GLOBE	Velan	4"	900	LIMITORQUE	SMB	00	10 FT-LB	1800 rpm	Medium	77/1	WATER	1650

MOTOR OPERATED BUTTERFLY VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION								SYSTEM INFO	
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	QTR TURN SIZE/TYP	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
31	Butterfly	Fisher	6"	150	LIMITORQUE	SMB	000	H0BC	2 FT-LB	1800 rpm	Light	Normal		
1-CC-V-1092	Butterfly	Fisher	6"	150	LIMITORQUE	SMB	000	H0BC	2 FT-LB	1800 rpm	Light	3397.35/1	WATER	150
1-CC-V-1095	Butterfly	Fisher	6"	150	LIMITORQUE	SMB	000	H0BC	2 FT-LB	1800 rpm	Light	3397.35/1	WATER	150
1-CC-V-1101	Butterfly	Fisher	6"	150	LIMITORQUE	SMB	000	H0BC	2 FT-LB	1800 rpm	Light	3397.35/1	WATER	150
1-CC-V-1109	Butterfly	Fisher	6"	150	LIMITORQUE	SMB	000	H0BC	2 FT-LB	1800 rpm	Light	3397.35/1	WATER	150
32	Butterfly	Fisher	12"	150	LIMITORQUE	SMB	00	H3BC	5 FT-LB	1800 rpm	X-Light	Normal		
1-SW-V-4	Butterfly	Fisher	12"	150	LIMITORQUE	SMB	00	H3BC	5 FT-LB	1800 rpm	X-Light	6580/1	WATER	150
1-SW-V-5	Butterfly	Fisher	12"	150	LIMITORQUE	SMB	00	H3BC	5 FT-LB	1800 rpm	X-Light	6580/1	WATER	150
33	Butterfly	Fisher	14/16"	150	LIMITORQUE	SMB	000	H1BC	5 FT-LB	1800 rpm	Light	Normal		
1-CC-V-137	Butterfly	Fisher	14"	150	LIMITORQUE	SMB	000	H1BC	5 FT-LB	1800 rpm	Light	3349.5/1	WATER	150
1-CC-V-266	Butterfly	Fisher	14"	150	LIMITORQUE	SMB	000	H1BC	5 FT-LB	1800 rpm	Light	3349.5/1	WATER	150
1-CC-V-145	Butterfly	Fisher	16"	150	LIMITORQUE	SMB	000	H1BC	5 FT-LB	1800 rpm	Light	3349.5/1	WATER	150
1-CC-V-272	Butterfly	Fisher	16"	150	LIMITORQUE	SMB	000	H1BC	5 FT-LB	1800 rpm	Light	3349.5/1	WATER	150
34	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	Normal		
1-SW-V-25	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	3073.6/1	WATER	150
1-SW-V-54	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	3073.6/1	WATER	150
1-SW-V-74	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	3073.6/1	WATER	150
1-SW-V-15	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-17	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-19	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-20	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-23	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-26	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-27	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-34	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-55	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-56	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
1-SW-V-76	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	1800 rpm	Light	4251/1	WATER	150
35	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	Normal		
1-SW-V-2	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150
1-SW-V-22	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150
1-SW-V-29	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150
1-SW-V-31	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150
1-SW-V-139	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150
1-SW-V-140	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	0	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150

MOTOR OPERATED BUTTERFLY VALVES - GROUPED BY COMMON PARAMETERS

VALVE INFORMATION					ACTUATOR INFORMATION								SYSTEM INFO	
CATEGORY & INCLUDED MOV's	DISK TYPE	VALVE VENDOR	SIZE	ANSI CLASS	ACTUATOR VENDOR	TYPE	SIZE	QTR TURN SIZE/TYP	MOTOR SIZE	MOTOR SPEED	SPRING PACK SIZE	OVER ALL GEAR RATIO	FLUID MEDIUM	DESIGN DIFFER. PRESS.
	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	OO	H4BC	15 FT-LB	3600 rpm	Medium	Normal		
1-SW-V-44 **	Butterfly	Fisher	24"	150	LIMITORQUE	SMB	OO	H4BC	15 FT-LB	3600 rpm	Light	4251/1	WATER	150

**

MOV's excluded from the Generic Letter 89-10 program by engineering evaluation 91-07
 "Motor Operated Valve Design Basis Review," dated April 1, 1991

New Hampshire Yankee
March 2, 1992

ATTACHMENT 2

MOV DYNAMIC TESTS (SORTED BY TEST GROUP)

VALVE ID	TEST GROUP	VALVE NAME	BASELINE DIAGNOSTIC TEST	DIFFERENTIAL PRESSURE TEST SCHEDULED/ PERFORMED
CS-V-149	1	REGEN HX OUTLET TO LETDOWN HX	COMPLETED - OR01	OR03
CS-V-142	2	CHARGING SYS TO REGEN HX ISOL	OR02	OR02
CS-V-143	2	CHARGING SYS TO REGEN HX ISOL	OR02	OR02 - ALTERNATE
RC-V-122	3	PZR RELIEF VALVE 456A ISOL	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
RC-V-124	3	PZR RELIEF VALVE 456B ISOL	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
CC-V-395	4	PCCW ISOL FROM RCP B TBC	OR03	OR03
CC-V-428	4	PCCW ISOL FROM RCP A TBC	OR03	OR03 - ALTERNATE
CC-V-438	4	PCCW ISOL FROM RCP C TBC	OR03	OR03 - ALTERNATE
CC-V-439	4	PCCW ISOL FROM RCP D TBC	OR03	OR03 - ALTERNATE
CS-LCV-112B	5	CCP SUCT FROM VCT	OR02	OR02
CS-LCV-112C	5	CCP SUCT FROM VCT	OR02	OR02 - ALTERNATE
SI-V-111	6	TRAIN B XCONN	OR02	OR02
SI-V-112	6	TRAIN A XCONN	OR02	OR02 - ALTERNATE
SI-V-77	7	TRAIN B HOT LEG INJECT ISOL VALVE	OR03	COMPLETED - OR01
SI-V-102	7	TRAIN A HOT LEG INJECTION ISOL	COMPLETED - OR01	COMPLETED - OR01
SI-V-114	7	ISOL FROM TRAIN A & B TO COLD LEG DISCH	OR02	SIMILAR VALVE TEST COMPLETE
SI-V-138	7	HIGH HEAD INJECTION LINE ISOL	OR02	OR02
SI-V-139	7	HIGH HEAD INJECTION LINE ISOL	OR02	OR02 - ALTERNATE
CBS-V-38	8	SAT SUPPLY TO RWST ISOL TRAIN A	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
CBS-V-43	8	SAT SUPPLY TO RWST ISOL TRAIN B	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
FW-V-156	9	EFW XCONN ISOL TO FW	OR03	OR03 - ALTERNATE
FW-V-163	9	SUFP XCONN TO EFW	OR03	OR03
CBS-V-53	10	RWST TO SI-P-6B SUCT	OR02	OR02

MOV DYNAMIC TESTS (SORTED BY TEST GROUP)

VALVE ID	TEST GROUP	VALVE NAME	BASLINE DIAGNOSTIC TEST	DIFFERENTIAL PRESSURE TEST SCHEDULED/ PERFORMED
CBS-V-49	11	RWST TO SI-P-6A SUCT	OR02	OR03 - ALTERNATE
CS-V-460	11	SI-P-6A SUCT FROM CCP SUCT HDR	OR03	OR03
CS-V-461	11	SI-P-6A SUCT FROM CCP SUCT HDR	OR03	OR03 - ALTERNATE
CS-V-475	11	SI-P-6A MASTER ISOL FROM CCP SUCT	OR03	OR03 - ALTERNATE
RH-V-21	12	RHR TRAIN B TO HOT LEGS 1 AND 4	OR03	OR03 - ALTERNATE
RH-V-22	12	RHR TRAIN A TO HOT LEGS 1 AND 4	OR03	OR03
RH-V-35	12	RHR TRAIN A TO CCP AND SI-P-6A SUCT	COMPLETED - OR01	OR03 - ALTERNATE
RH-V-36	12	RHR TRAIN B TO CCP AND SI-P-6B SUCT	COMPLETED - OR01	OR03 - ALTERNATE
CBS-V-47	13	RWST TO SI-P-6A SUCT	OR02	OR02 - ALTERNATE
CBS-V-51	13	RWST TO SI-P-6B SUCT	OR02	OR02 - ALTERNATE
CS-LCV-112D	13	RWST TO CCP SUCT	OR02	OR02 - ALTERNATE
CS-LCV-112E	13	RWST TO CCP SUCT	OR02	OR02
RH-V-32	14	RHR TRAIN B XCONN TO HOT LEGS 1 AND 4	COMPLETED - OR01	COMPLETED - OR01
RH-V-70	14	RHR TRAIN A XCONN TO HOT LEGS 1 AND 4	COMPLETED - OR01	COMPLETED - OR01
RH-V-14	15	RHR TRAIN A TO COLD LEGS 1 AND 2	OR02	OR02
RH-V-26	15	RHR TRAIN B TO COLD LEGS 3 AND 4	OR03	OR02 - ALTERNATE
CBS-V-11	16	SPRAY RING A ISOL VALVE	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
CBS-V-17	16	SPRAY RING B ISOL VALVE	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
SI-V-3	17	DISCH FROM ACCUM TANK 9A TO LOOP 1	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
SI-V-17	17	DISCH FROM ACCUM TANK 9B TO LOOP 2	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
SI-V-32	17	DISCH FROM ACCUM TANK 9C TO LOOP 3	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
SI-V-47	17	DISCH FROM ACCUM TANK 9D TO LOOP 4	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
CBS-V-2	18	CBS-P-9A SUCTION FROM RWST	OR02	OR02
CBS-V-5	18	CBS-P-9B SUCTION FROM RWST	OR02	OR02 - ALTERNATE

MOV DYNAMIC TESTS (SORTED BY TEST GROUP)

VALVE ID	TEST GROUP	VALVE NAME	BASLINE DIAGNOSTIC TEST	DIFFERENTIAL PRESSURE TEST SCHEDULED/ PERFORMED
RC-V-22	19	UPSTREAM ISOL FROM HOT LEG 1 TO RH-P-8A	OR02	EXCLUDED (RE: ATTACHMENT 3)
RC-V-23	19	DOWNSTREAM ISOL FROM HOT LEG 1 TO RH-P-8A	OR02	EXCLUDED (RE: ATTACHMENT 3)
RC-V-87	19	UPSTREAM ISOL FROM HOT LEG 4 TO RH-P-8B	OR03	EXCLUDED (RE: ATTACHMENT 3)
RC-V-88	19	DOWNSTREAM ISOL FROM HOT LEG 4 TO RH-P-8B	OR02	EXCLUDED (RE: ATTACHMENT 3)
AS-V-175	20	PAB AND WPB SUPPLY	OR02	OR02
AS-V-176	20	PAB AND WPB SUPPLY	OR02	OR02 - ALTERNATE
CBS-V-8	21	CONTM RECIRC SUMP TANK A ISOL	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
CBS-V-14	21	CONTM RECIRC SUMP TANK B ISOL	COMPLETED - OR01	EXCLUDED (RE: ATTACHMENT 3)
RC-V-323	22	REACTOR HEAD VENT ISOL	COMPLETED - OR01	OR03
MSD-V-44	23	LOOP 1 UPSTREAM MSIV HEADER DRAIN ISOL	OR02	OR02
MSD-V-45	23	LOOP 2 UPSTREAM MSIV HEADER DRAIN ISOL	OR02	OR02 - ALTERNATE
MSD-V-46	23	LOOP 3 UPSTREAM MSIV HEADER DRAIN ISOL	OR02	OR02 - ALTERNATE
MSD-V-47	23	LOOP 4 UPSTREAM MSIV HEADER DRAIN ISOL	OR02	OR02 - ALTERNATE
CGC-V-14	24	PURGE EXHAUST IRC ISOL	COMPLETED - OR01	OR03
CGC-V-28	24	PURGE EXHAUST IRC ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CS-V-154	25	"D" RCP SEAL INJECTION ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CS-V-158	25	"C" RCP SEAL INJECTION ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CS-V-162	25	"B" RCP SEAL INJECTION ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CS-V-166	25	"A" RCP SEAL INJECTION ISOL	COMPLETED - OR01	OR03
CS-V-167	25	RCP SEALS TO SEAL WATER HX	COMPLETED - OR01	OR03 - ALTERNATE
CS-V-168	25	RCP SEALS TO SEAL WATER HX	OR03	OR03
CS-V-196	25	CCP 2A MIN FLOW ISOL	OR02	OR03 - ALTERNATE
CS-V-197	25	CCP 2B MIN FLOW ISOL	OR02	OR03 - ALTERNATE
CS-V-426	25	EMERGENCY BORATION ISOL	COMPLETED - OR01	OR03 - ALTERNATE
SI-V-89	25	SI PUMP B, MINIFLOW ISOL VALVE	OR02	OR03 - ALTERNATE

MOV DYNAMIC TESTS (SORTED BY TEST GROUP)

VALVE ID	TEST GROUP	VALVE NAME	BASELINE DIAGNOSTIC TEST	DIFFERENTIAL PRESSURE TEST SC DULLED/ PERFORMED
SI-V-90	25	SI PUMP A, MINIFLOW ISOL VALVE	OR02	OR03 - ALTERNATE
SI-V-93	25	COMBINED MINIFLOW ISOL VALVE TO RWST	OR02	OR03 - ALTERNATE
RH-FCV-610	26	RHR TRAIN A - PUMP 8A MINIFLOW RECIRC ISOL	OR03	OR03 - ALTERNATE
RH-FCV-611	26	RHR TRAIN B - PUMP 8B MINIFLOW RECIRC ISOL	OR03	OR03
MS-V-204	27	LOOP 1 MSIV BYPASS VALVE	COMPLETED - OR01	SIMILAR VALVE TEST COMPLETE
MS-V-205	27	LOOP 2 MSIV BYPASS VALVE	COMPLETED - OR01	COMPLETED - OR01
MS-V-206	27	LOOP 3 MSIV BYPASS VALVE	COMPLETED - OR01	SIMILAR VALVE TEST COMPLETE
MS-V-207	27	LOOP 4 MSIV BYPASS VALVE	COMPLETED - OR01	SIMILAR VALVE TEST COMPLETE
FW-FV-4214A	28	S/G A EFW FLOW CONTROL	OR02	OR02 - ALTERNATE
FW-FV-4214B	28	S/G A EFW FLOW CONTROL	OR02	OR02 - ALTERNATE
FW-FV-4224A	28	S/G B EFW FLOW CONTROL	OR02	OR02
FW-FV-4224B	28	S/G B EFW FLOW CONTROL	OR02	OR02 - ALTERNATE
FW-FV-4234A	28	S/G C EFW FLOW CONTROL	OR02	OR02 - ALTERNATE
FW-FV-4234B	28	S/G C EFW FLOW CONTROL	OR02	OR02
FW-FV-4244A	28	S/G D EFW FLOW CONTROL	OR02	OR02 - ALTERNATE
FW-FV-4244B	28	S/G D EFW FLOW CONTROL	OR02	OR02 - ALTERNATE
CC-V-434	29	PCCW ISOL FROM EXCESS LETDOWN HX	COMPLETED - OR01	OR03
FW-V-346	30	EFW PUMP 37A RECIRC ISOL	OR03	COMPLETED PRE-OR01
FW-V-347	30	EFW PUMP 37B RECIRC ISOL	OR03	COMPLETED PRE-OR01
CC-V-1092	31	TBC HX B PCCW SUPPLY HDR ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CC-V-1095	31	TBC HX B PCCW RETURN HDR ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CC-V-1101	31	TBC HX A PCCW SUPPLY HDR ISOL	COMPLETED - OR01	OR03 - ALTERNATE
CC-V-1109	31	TBC HX A PCCW RETURN HDR ISOL	COMPLETED - OR01	OR03
SW-V-4	32	TRAIN A SUPPLY TO TURBINE BLDG ISOL	OR03	OR03
SW-V-5	32	TRAIN B SUPPLY TO TURBINE BLDG ISOL	OR03	OR03 - ALTERNATE

MOV DYNAMIC TESTS (SORTED BY TEST GROUP)

VALVE ID	TEST GROUP	VALVE NAME	BASELINE DIAGNOSTIC TEST	DIFFERENTIAL PRESSURE TEST SCHEDULED/ PERFORMED
CC-V-137	33	PCCW ISOL FROM CBS HX A	COMPLETED - OR01	SIMILAR VALVE TEST COMPLETE
CC-V-145	33	PCCW ISOL FROM RHR HX A	COMPLETED - OR01	SIMILAR VALVE TEST COMPLETE
CC-V-266	33	PCCW ISOL FROM CBS HX B	COMPLETED - OR01	SIMILAR VALVE TEST COMPLETE
CC-V-272	33	PCCW ISOL FROM RHR HX B	COMPLETED - OR01	COMPLETED - OR01
SW-V-15	34	PCC HX CC-E-17A OUTLET	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-17	34	PCC HX CC-E-17B OUTLET	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-19	34	PAB DISCH TO TRANSITION STRUCTURE	OR03	COMPLETED PRE-OR01
SW-V-20	34	PAB DISCH TO TRANSITION STRUCTURE	OR03	COMPLETED PRE-OR01
SW-V-23	34	PAB RETURN TO COOLING TOWER	OR03	COMPLETED PRE-OR01
SW-V-25	34	SW-P-110B DISCH	OR03	COMPLETED PRE-OR01
SW-V-26	34	SW-P-110B RECIRC	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-27	34	SW-P-110B BYPASS	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-34	34	PAB RETURN TO COOLING TOWER	OR03	COMPLETED PRE-OR01
SW-V-54	34	SW-P-110A DISCH	OR03	COMPLETED PRE-OR01
SW-V-55	34	SW-P-110A RECIRC	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-56	34	SW-P-110A BYPASS	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-74	34	TURBINE BLDG DISCH TO PAB DISCH	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-76	34	TURBINE BLDG DISCH TO PAB DISCH	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-2	35	SW-P41A DISCH	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-22	35	SW-P41C DISCH	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-29	35	SW-P41B DISCH	OR03	COMPLETED PRE-OR01
SW-V-31	35	SW-P41D DISCH	OR03	COMPLETED PRE-OR01
SW-V-139	35	TRAIN A SW COOLING TOWER DEICING	OR03	COMPLETED PRE-OR01
SW-V-140	35	TRAIN B SW COOLING TOWER DEICING	OR03	SIMILAR VALVE TEST COMPLETE
SW-V-44	-	INTAKE STRUCT SUCT SUP TO SW PMPHSE	(RE: ATTACHMENT 3)	EXCLUDED (RE: ATTACHMENT 3)

New Hampshire Yankee
March 2, 1992

ATTACHMENT 3

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: 3

Valve

Description: PORV Block Valves (RC-V-122, RC-V-124)

Design

- Function:
1. To close to isolate a stuck open pressurizer PORV.
 2. To open so that the pressurizer PORV is not isolated.

Basis for

Exclusion: Differential pressures at or near design values can only be achieved with the plant in Modes 1, 2, or 3. Differential pressure testing during the plant Startup-Test Phase was successfully performed prior to initial core load at the following differential pressures:

RC-V-122

Open Differential Pressure - 2219 psid

Close Differential Pressure - 2118 psid

RC-V-124

Open Differential Pressure - 2238 psid

Close Differential Pressure - 2118 psid

Testing these valves with the plant operational presents an unnecessary challenge to plant equipment and creates an undue risk of depressurizing the reactor coolant system. The valve actuator torque switch settings have not been reduced from the settings at the time of startup testing.

Diagnostic testing was performed on both RC-V-122 and 124 during the first refueling outage. Both valves have demonstrated adequate thrust characteristics which are based on conservative calculations and will ensure proper operation under design basis differential pressure conditions.

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: 8

Valve

Description: Containment Building Spray System Spray Additive Tank Supply Isolation Valves to the Refueling Water Storage Tank, RWST, (CBS-V-38, CBS-V-43)

Design

Function: To open on a containment spray actuation, "P" signal to align the Spray Additive Tank to the RWST.

Basis for

Exclusion: These valves can not be tested under actual flow conditions without contaminating the RWST with sodium hydroxide. The design differential pressure of 25 psid in both the open and close directions is extremely low. Differential pressure testing during the plant Startup-Test Phase was successfully performed prior to initial core load at the following differential pressures:

CBS-V-38

Open Differential Pressure - 12 psid

Close Differential Pressure - 12 psid

CBS-V-43

Open Differential Pressure - 12 psid

Close Differential Pressure - 12 psid

Diagnostic testing was performed on both CBS-V-38 and CBS-V-43 during the first refueling outage. Both valves have demonstrated thrust characteristics greater than that required to overcome the small design differential pressure by such a large margin that performance of a differential test would not be meaningful even if it were feasible.

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: 16

Valve

Description: Containment Building Spray Ring Isolation Valves, (CBS-V-11, CBS-V-17)

Design

Function: To open on a containment spray actuation, "P" signal to align the containment spray pump to the spray rings inside the containment building.

Basis for

Exclusion: These valves can not be tested under actual flow conditions. Testing would require containment spray discharge. Differential pressure testing during the plant Startup-Test Phase was successfully performed prior to initial core load at the following differential pressures:

CBS-V-11

Open Differential Pressure - 325 psid

Close Differential Pressure - 0 psid

CBS-V-17

Open Differential Pressure - 325 psid

Close Differential Pressure - 0 psid

Diagnostic testing was performed on both CBS-V-11 and 17 during the first refueling outage. Both valves have demonstrated adequate thrust characteristics which are based on conservative calculations and will ensure proper operation under design basis differential pressure conditions.

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: 17

Valve

Description: SI Accumulator Block Valves (SI-V-3, SI-V-17, SI-V-32, SI-V-47)

Design

- Function:
1. The SI Accumulator Block Valves are normally open with power removed from the valve actuator during normal plant operation. These valves are under tight administrative controls during a plant heatup or cooldown as reactor coolant system pressure reaches 1000 psig.
 2. With reactor coolant pressure less than 1000 psig and with pressure in the safety injection accumulators the valves are shut with power removed from the actuator.

Basis for

Exclusion: The valves are operated under tight administrative controls in accordance with plant operating procedures and are not required to operate during an accident. The design differential pressures originally established for these valves do not consider the restricted operating practice now required for these valves.

For reference, differential pressure testing during the plant Startup-Test Phase was successfully performed prior to initial core load at the following differential pressures:

SI-V-3

Open Differential Pressure - 650 psid

Close Differential Pressure - 0 psid

SI-V-17

Open Differential Pressure - 640 psid

Close Differential Pressure - 0 psid

SI-V-32

Open Differential Pressure - 630 psid

Close Differential Pressure - 0 psid

SI-V-47

Open Differential Pressure - 640 psid

Close Differential Pressure - 0 psid

The Motor-Operated Valve Design Basis Review, Engineering Evaluation No. 91-07 prepared for the first refueling outage scope of work has addressed these valves and has recommended that these valves be removed from the GI 89-10 program.

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: 19

Valve

Description: RHR Pump Suction Isolation Valves (RC-V-22, RC-V-23, RC-V-87, RC-V-88)

Design

- Function:
1. The RHR Pump Suction Isolation Valves are normally closed with their circuit breakers locked open (administratively controlled) and are only opened for residual heat removal after reactor coolant system pressure has been reduced to below 365 psig and system temperature has been reduced to approximately 350 °F. Locking the circuit breakers open prevents inadvertent mispositioning from the control room when the RCS pressure is greater than 365 psig.
 2. Interlocks prevent these valves from being opened with pressure above 365 psig administrative control measures provide low temperature over pressure protection for the reactor coolant system during plant shutdown conditions.
 3. The RHR Pump Suction Isolation valves are required to be open, (during plant shutdown and cool down), when the RHR suction relief valves are being used for low temperature over-pressure protection.

Basis for

Exclusion: RC-V-22, 23, 87, and 88 are not required to operate during a design basis LOCA. These valves can not be tested without establishing an actual over-pressure condition for example with a charging pump. These MOV's have circuit breakers which are locked open to prevent inadvertent mispositioning from the main control room (reference Operating Procedure OS1090.05). To subject the reactor coolant/residual heat removal systems to such conditions would not be prudent. RC-V-22, 23, and 88 will be diagnostically tested during the second refueling outage and RC-V-87 during the third refueling outage. This testing will ensure that the valve thrust values are adequate based on conservative calculations.

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: 21

Valve

Description: Containment Building Recirculation Sump Isolation Valves, (CBS-V-8, CBS-V-14)

Design

Function: Normally closed valves that isolate the containment recirculation sump from the CBS system and RHR System. These valves automatically open on a low-low FWST level signal in conjunction with an "S" signal to provide a recirculation flowpath from the containment sump to the CBS pumps and RHR pumps.

Basis for

Exclusion: These valves can not be tested at design differential pressure conditions without establishing pressure inside the containment. The design differential pressure of only 70 psid in both the open and close directions is low.

Diagnostic testing was performed on both CBS-V-8 and CBS-V-14 during the first refueling outage. Both valves have demonstrated thrust characteristics greater than that required to overcome the small design differential pressure by such a large margin that performance of a differential test would not be meaningful even if it were feasible.

ATTACHMENT 3

DIFFERENTIAL PRESSURE TESTING EXCLUSION LIST

Test Group: N/A

Valve

Description: Intake Structure Isolation Valve to the SW Pump House, (SW-V-44)

Design

Function: The normal function of SW-V-44 is to be open and circuit breaker de-energized during all normal operating modes. SW-V-44 supplies sea water from the intake transition structure to the service water pump bay.

Basis for

Exclusion: Motor-Operated Valve Design Basis Review, Engineering Evaluation 91-07 contains the justification for eliminating this valve from the GL 89-10 program and has been reviewed and accepted as identified in NRC MOV Inspection Report, reference (c).