COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE TESTING PLAN FOR PUMPS AND VALVES FIRST INTERVAL

REVISION 8

Prepared By: RBMays BMays Engineering Programs Supervisor

Date: 1-29-97

Date: 1-29-97

Approved By: MRBLW. --

Date: 1-31-97

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Excluded from this testing plan are:

- valves used only for operating convenience such as vent, drain, instrument and test valves, or
- valves used only for system control, such as pressure regulating valves, or
- c) valves used only for system or component maintenance.

Further, the valve actuating system test scope does not include external control and protection systems responsible for sensing plant conditions and providing signals for valve operation.

The active valves and pressure relief devices in the scope of this testing plan are described in the CPSES Final Safety Analysis Report (FSAR), Sections 3.9N.3.2 and 3.9B.3.2, "Pump and Valve Operability Assurance", and are tabulated in FSAR Tables 3.9N-10 and 3.9B-10, "Active Valves". ASME Code Class 2 and 3 pressure relief devices that only protect systems/components that perform a safety function as described above are not tabulated in FSAR Tables 3.9N-10 and 3.9B-10, but have been included in this testing plan under Revision 8. These valves will be tested over the required test interval of 10 years commencing upon the issuance of Revision 8.

The passive valves and pressure relief devices in the scope of this testing plan were identified by review and are those valves and pressure relief devices which perform a nuclear safety function but are not active and for which leakage testing or position indicator testing is required.

A listing of the above described active and passive valves and pressure relief devices can be found in Tables 1 through 17 of this IST Plan.

3.3 Valve Testing Table Format

Detailed information and testing requirements for the valves included in this IST Plan are summarized in Tables 1 through 17. A separate table has been prepared for each plant system which contains valves in the scope of the plan. The tables are arranged in alphabetical order by system name:

Auxiliary Feedwater	Table 1
Component Cooling Water	Table 2
Chilled Water (Safety)	Table 3
Chemical and Volume Control	Table 4
Containment Spray	Table 5

	Flow	Valve/					F-F-1	Te	est Parameters			
Valve Number	Diagram (Coord.)	Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks
AF-0009	M1-0206-2 (D-1) M2-0206-2 (D-1)	CK/SA	3	3	C	A	С	N/A	CV/Q	N/A	N/A	Nn-Safety Makeup Line Isolation
AF-0014	M1-0206-1 (B-2) M2-0206-1 (B-2)	CK/SA	6	3	С	A	0	N/A	CV/Q	N/A	N/A	AFW Flowpath
AF-0024	M1-0206-1 (8-3) M2-0206-1 (8-3)	CK/SA	6	3	С	A	0	N/A	CV/Q	N/A	N/A	AFW Flowpath
AF-0032	M1-0206-1 (8-5) M2-0206-1 (8-5)	CK/SA	8	3	С	A	0	N/A	CV/Q	N/A	N/A	AFW Flowpath
AF-0038	M1-0206-1 (E-4) M2-0206-1 (E-4)	CK/SA	8	3	С	A	0	N/A	CV/Q	N/A	N/A	AFW Flowpath
AF-0041	M1-0206-1 (E-4) M2-0206-1 (E-4)	GA/MA	8	3	В	Р	0	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath
AF-0042	M1-0206-1 (F-4) M2-0206-1 (F-4)	GA/MA	6	3	В	P	С	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath Boundary

							F - F- k	Te	st Parameters	/Schedule	Don't him		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks	6
AF-0051	M1-0206-1 (E-3) M2-0206-1 (E-3)	CK/SA	6	3	С	A	0	N/A	CV/Q	N/A	N/A	AFW Flowpath	
AF-0054	M1-0206-1 (E-3) M2-0206-1 (E-3)	GA/MA	6	3	В	P	0	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath	
AF-0055	M1-0206-1 (F-3) M2-0206-1 (F-3)	GA/MA	6	3	8	Р	С	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath Boundary	6
AF-0065	M1-0206-1 (E-2) M2-0206-1 (E-2)	CK/SA	6	3	С	A	0	N/A	CV/Q	N/A	N/A	AFW Flowpath	
AF-0066	M1-0206-1 (E-2) M2-0206-1 (E-2)	GA/MA	6	3	В	Р	0	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath	

Flow						Cafet	Te	est Parameters		Position		
Valve Number	Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Indicator Test	Remarks
AF-0067	M1-0206-1 (F-2) M2-0206-1 (F-2)	GA/MA	6	3	В	P	С	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath Boundary
AF-0075	M1-0206 (C-4) M2-0206 (C-4)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0078	M1-0206 (C-4) M2-0206 (C-4)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0083	M1-0206 (C-2) M2-0206 (C-2)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0086	M1-0206 (C-3) M2-0206 (C-3)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0093	M1-0206 (C-1) M2-0206 (C-1)	CK/SA	4	3	С	Α	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup

	Flow	Valve/					r. r.	Te	st Parameters			
Valve Number	Diagram (Coord.)	Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
AF-0098	M1-0206 (C-2) M2-0206 (C-2)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0101	M1-0206 (C-5) M2-0206 (C-5)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0106	M1-0206 (C-5) M2-0206 (C-5)	CK/SA	4	3	С	A	0/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup
AF-0167	M1-0206-2 (A-5) M2-0206-2 (A-5)	CK/SA	8	3	С	A	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
1AF-0215	M1-0218-1A (E-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
14F-0216	M1-0218-1A (E-4)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0217	M1-0218-1A (0-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0218	M1-0218-1A (D-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0219	M1-0218-1A (C-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation

								Tes	st Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
1AF-0220	M1-0218-1A (C-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
AF-0221	M1-0218-1A (C-4) M2-0218-2 (C-5)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
AF-0222	M1-0218-1A (C-4) M2-0218-2 (C-5)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0223	M1-0218-1A (A-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Mon-Safety Air Supply Isolation
2AF-0224	M2-0218-2 (C-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0224	M1-0218-1A (A-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0223	M2-0218-2 (C-4)	CK/SA	1/2	3	A/C	А	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0226	M1-0218-1A (B-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0227	M2-0218-2 (8-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0227	M1-0218-1A (8-4)	CK/SA	1/2	3	A/C	Α	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0226	M2-0218-2 (B-4)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation

10

								Tes	t Parameters		2	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
AF-0228	M1-0218-1A (A-4) M2-0218-2 (D/E-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
AF-0229	M1-0218-1A (A-4) M2-0218-2 (D/E-4)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0230	M1-0218-1A (B-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0231	M2-0218-2 (F-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1AF-0231	M1-0218-1A (8-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0230	M2-0218-2 (F-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
AF-0232	M1-0218-1 (F-2) M2-0218-1 (F-2)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
AF-0233	M1-0218-1 (F-2) M2-0218-1 (F-2)	CK/SA	1/2	3	A/S	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
AF-0234	M1-0218-1 (F-1) M2-0218-1 (D-1)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation

			Valve/				C-5-1	Tes	t Parameters			
Valve Number	Flow Diagram (Coord.)	Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
AF-0235	M1-0218-1 (F-1) M2-0218-1 (D-1)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0236	M2-0218-2 (F-5)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0237	M2-0218-2 (E-5)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0238	M2-0218-2 (E-5)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0239	M2-0218-2 (D-5)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
2AF-0240	M2-0218-2 (D-5)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2AF-0291	M2-0218-2 (F-5)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
PV-2453A	M1-0206 (B-4) M2-0206 (B-4)	GL/A0	3	3	В	A	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
PV-24538	M1-0206 (B-2) M2-0206 (B-2)	GL/A0	3	3	В	A	G/C	N/A	MT/Q	F0/Q	PTT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation

Flow		Value (Cofee	Te	st Parameters			
Valve Number	Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks
PV-2454A	M1-0206 (B-1) M2-0206 (B-1)	GL/A0	3	3	В	A	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
PV-2454B	M1-0206 (B-5) M2-0206 (B-5)	GL/A0	3	3	В	A	0/0	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
FV-2456	M1-0206-1 (D-1) M2-0206-1 (D-1)	GL/AO	2	3	В	A	0/0	N/A	MT/Q	FO/Q	PIT/ 2YR	Pump Miniflow Path/AFW Flowpath Boundary
FV-2457	M1-0206-1 (D-3) M2-0206-1 (D-3)	GL/A0	2	3	В	Α	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	Pump Miniflow Path/AFW Flowpath Boundary
HV-2459	M1-0206 (B-4) M2-0206 (B-4)	GL/AO	3	3	В	Α	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
HV-2460	M1-0206 (8-3) M2-0206 (8-3)	GL/AO	3	3	В	A	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
HV-2461	M1-0206 (8-2) M2-0206 (8-2)	GL/AO	3	3	В	A	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation

	Flow	Valve/ Safety Test Parameters/Schedule Fail Position										
Valve Number	Diagram (Coord.)	Actuator Type	Size	Code Class	Cate- gory	Func- tion	Func. Pos.	Leak <u>Test</u>	Exercise Test	Safe Test	Indicator <u>Test</u>	Remarks
HV-2462	M1-0206 (B-5) M2-0206 (B-5)	GL/A0	3	3	В	A	0/C	N/A	MT/Q	F0/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
LV-2478	M1-0206-2 (E-1) M2-0206-2 (E-1)	GL/A0	3	3	В	p	С	N/A	N/A	N/A	PIT/ 2YR	Non-Safety Makeup Line Isolation
HV-2480	M1-0206-1 (B-2) M2-0206-1 (B-2)	GA/MO	6	3	В	Α	0	N/A	MT/Q	E-m	PIT/ 2YR	AFW Pump Emergency Supply Flowpath
HV-2481	M1-0206-1 (B-4) M2-0206-1 (B-4)	GA/MO	6	3	В	Α	0	N/A	MT/Q	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath
HV-2462	M1-0206-1 (8-4) M2-0206-1 (8-4)	GA/HO	8	3	В	Α	0	N/A	MT/Q	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath
HV-2484	M1-0206-2 (D-4) M2-0206-2 (D-4)	BF/MO	12	3	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Condensate System to Condensate Storage Tank Isolation to Preclude Tank Overpressurization

7

Flor	Malion I					Caffetu	Te	est Parameters		Position		
Valve Number	Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	indicator Test	Remarks
HV-2485	M1-0206-2 (D-4) M2-0206-2 (D-4)	BF/MO	12	3	В	Α	С	N/A	MT/Q	N/A	PIT/ 2YR	Condensate System to Condensate Storage Tank Isolation to Preclude Tank Overpressurization
HV-2491A	M1-0206 (D-4) M2-0206 (D-4)	GA/MO	4	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2491B	M1-0206 (D-4) M2-0206 (D-4)	GA/MO	4	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2492A	M1-0206 (D-3) M2-0206 (D-3)	GA/MC	4	2	В	Α	С	N/A	M170	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-24928	M1-0206 (D-2) M2-0206 (D-2)	GA 'MO	4	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2493A	M1-0206 (D-1) M2-0206 (D-1)	GA/MO	4	2	В	A	С	N/A	-MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2493B	M1-0206 (D-2) M2-0206 (D-2)	GA/MO	4	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation

	Flow	Valve/					C+ 6-1	Te	est Parameters			
Valve _Number	Diagram (Coord.)	Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks
HV-2494A	M1-0206 (D-5) M2-0206 (D-5)	GA/MO	4	2	В	A	C	N-A	MT/C	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2494B	M1-0206 (D-5) M2-0206 (D-5)	GA/M0	4	2	В	Α	С	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
AF-0248	M1-0206-1 (B-1) M2-0206-1 (B-1)	RE/SA	3/4 X 1	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Motor Driven AFW Pump Suction Relief Valve
AF-0249	M1-0206-1 (B-2) M2-0206-1 (B-2)	RE/SA	3/4 X 1	3	C	Α	N/A (2)	N/A	SRV/10YR	N/A	N/A	Motor Driven AFW Pump Suction Relief valve
AF-0250	M1-206-1 (B-5) M2-206-1 (B-5)	RE/SA	3/4 X 1	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Turbin Driven AFW Pump Suction Relief Valve

NOTES

AF-0075, AF-0083, AF-0086, AF-0093, AF-0098, AF-0101, AF-0106, AFW to Steam Generator Header Check Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full or part-stroke open exercised during plant operation because such testing would unnecessarily subject the steam generator nozzles to thermal transients from the cool auxiliary feedwater for which they are not designed and could result in steam generator level transients. The valves cannot be exercised closed during plant operation for the same reasons. However, the valves are verified to be closed periodically during plant operation through upstream temperature monitoring of the piping and pumps.

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 Relief valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function.

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								Te	est Parameters	/Schodul	P	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator _Type.	Size	Code Class	Cate-	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise _Test_	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
CC-0003	M1-0229-A (C-1) M2-0229 (C-1)	CK/SA	3	3	С	A	0	N/A	CV/Q	N/A	N/A	Surge Tank Emergency Makeup Flowpath
CC-9094	M1-0229-A (D-1) M2-0229 (E-1)	CK/SA	3	3	С	A	С	N/A	CV/Q	N/A	N/A	Surge Tank Emergency Makeup Flowpath Boundary
CC-003:	M1-0229-A (E-3) M2-0229 (B-4)	CK/SA	24	3	С	A	0/0	N/A	CV/Q	N/A	N/A	CCW Flowpath/CCW Flowpath Boundary
CC-0061	M1-0229-B (C-3) M2-0229 (F-4)	CK/SA	24	3	С	A	0/C	N/A	CV/Q	N/A	N/A	CCW Flowpath/CCW Flowpath Boundary
X-PCV-H116A	M1-0229-A (A-4)	PL/A0	1	3	В	Α	N/A (1)	N/A	N/A	F0/Q	N/A	UPS A/C Condenser Cooling Flow Control
X-PCV-H116B	M1-0229-B (F-4)	PL/A0	1	3	В	Α	N/A (1)	N/A	N/A	F0/Q	N/A	UPS A/C Condenser Cooling Flow Control
2CC-0371	M2-0231 (G-4)	SCK/SA	2	3	С	Α	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
2CC-0372	M2-0231 (F-3)	SCK/SA	2	3	С	Α	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
2CC-0373	M2-0231 (D-3)	SCK/SA	2	3	С	Α	C	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation

								-	Test Paramet				
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks	
2CC-0374	M2-0231 (D-4)	SCK/SA	2	3	С	A	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation	
CC-0611	M1-0231 (F-2) M2-0231-A (C-2)	RE/SA	3/4 X 1	2	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	Containment Penetration Thermal Relief	3
CC-0618	M1-0231 (F-3) M2-0231-A (C-3)	RE/SA	3/4 X 1	2	С	A	0/0	N/A	SRV/ 10YR	N/A	N/A	Containment Penetration Thermal Relief	3
CC-9629	M1-0231 (C-4) M2-0231 (A-6)	CK/SA	2	2	A/C	Α	D/C	LTJ/TS	CV/CS (3)	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation	
CC-0646	M1-0231-A (D-4) M2-0231 (D-4)	SCK/SA	2	3	С	Α	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation	
CC-0657	M1-0231-A (D-3) M2-0231 (D-3)	SCK/SA	2	3	С	A	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation	
CC-0687	M1-0231-A (G-3) M2-0231 (G-3)	SCK/SA	2	3	C	A	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation	

								Tes	t Parameters	/Schedul	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator 	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position indicator <u>Test</u>	Remarks
CC-0694	M1-0231-A (G-4) M2-0231 (G-4)	SCK/SA	2	3	С	A	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
CC-0713	M1-0231-A (C-6) M2-0231 (C-6)	CK/SA	8	2	A/C	A	С	LTJ/TS	CV/CS (4)	N/A	N/A	Containment Isolation
CC-0831	M1-0231 (C-4) M2-0231 (A-4)	CK/SA	1	2	A/C	A	0/0	LTJ/TS	CV/CS (3)	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation
1CC-1067	M1-0231 (B-5)	RE/SA	3/4 X 1	2	A/C	A	0/C	LTJ/TS	SRV/ 10YRS	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation
1CC-1075	M1-0231-A (G-4)	SCK/SA	2	3	С	Α	C	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
1CC-1076	M1-0231-A (G-3)	SCK/SA	2	3	С	Α	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
1CC-1077	M1-0231-A (D-3)	SCK/SA	2	3	С	Α	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
1CC-1078	M1-0231-A (D-4)	SCK/SA	2	3	С	Α	С	N/A	CV/CS (2)	N/A	N/A	RCP Thermal Barrier Rupture Isolation
1CC-1079	M1-0216-1 (F-4)	CK/SA	1/2	3	A/C	Α	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation

								Tor	t Parameters	/Schodul		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks
1CC-1080	M1-0216-1 (F-4)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
100-1081	M1-0216-1 (F-4)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
1CC-1082	M1-0216-1 (F-4)	CK/SA	1/2	3	A/C	Α.	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Won-Safety Air Supply Isolation
2CC-1090	M2-0231-A (F-2)	RE/SA	3/4 X 1	2	A/C	Α	0/C	LTJ/TS	SRV/ 10YR	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation
2CC-1091	M2-0216-B (D-1)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2CC-1092	M2-0216-B (D-1)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2CC-1093	M2-0216-B (D-1)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
2CC-1094	M2-0216-B (D-1)	CK/SA	1/2	3	A/C	A	С	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumu- lator to Non-Safety Air Supply Isolation
X-PV-3583	M1-0229-A (E-5)	PL/MO	3	3	В	Α	N/A (5)	N/A	N/A	N/A	N/A	Control Room A/C Condenser Cooling Flow Control
X-PV-3584	M1-0229-A (D-6)	PL/MO	3	3	В	A	N/A (5)	N/A	N/A	N/A	N/A	Control Room A/C Condenser Cooling Flow Control

	Flow	Valve/					Safety	Te	st Parameters	/Schedule Fail	Position	
Valve	Diagram	Actuator		Code	Cate-	Func-	Func.	Leak	Exercise	Safe	Indicator	
Number	(Coord.)	Type	Size	Class	gory	tion_	Pos.	<u>Test</u>	Test	Test	<u>Test</u>	Remarks
X-PV-3585	M1-0229-B (B-6)	PL/MO	3	3	В	Α	N/A (5)	N/A	N/A	N/A	N/A	Control Room A/C Condenser Cooling Flow Control
X-PV-3586	M1-0229-B (C-6)	PL/MO	3	3	В	Α	N/A (5)	N/A	N/A	N/A	N/A	Control Room A/C Condenser Cooling Flow Control
LV-4500	M1-0229-A (C-2) M2-0229 (C-1)	GL/AO	3	3	В	A	0/C	N/A	MT/Q	FC/Q	PIT/ 2YR	Surge Tank Emergency Makeup Flowpath/Isolation
LV-4500-1	M1-0229-A (C-1) M2-0229 (C-1)	GL/AO	3	3	В	A	0	N/A	MT/Q	F0/Q	PIT/ 2YR	Surge Tank Emergency Makeup Flowpath
LV-4501	M1-0229-A (D-2) M2-0229 (D-1)	GL/AO	3	3	В	A	0/0	N/A	MT/Q	FC/Q	PIT/ 2YK	Surge Tank Emergency Makeup Flowpath/Isolation
HV-4512	M1-0229-A (F-1) M2-0229 (C-3)	BF/MO	24	3	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Train A to Train B Crosstie Isolation
HV-4513	M1-0229-A (G-1) M2-0229 (E-3)	BF/MO	24	3	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Tra. A to Train B Crosstie Isola 'on
HV-4514	M1-0229-B (A-4) M2-0229 (C-6)	BF/MO	24	3	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Train A to Train B Crosstie Isolation

								Te	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-	Func- tion	Safety Func. Pos.	Leak Iest	Exercise Test	Fail Safe Test		Remarks
HV-4515	M1-0229-B (A-4) M2-0229 (D-6)	BF/MO	24	3	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Train A to Train B Crosstie Isolation
HV-4524	M1-0229-A (F-1) M2-0229 (D-4)	8F/MO	24	3	В	A	C	N/A	MT/CS (6)	N/A	PIT/ 2YR	Non-Safety Loop Flowpath Isolation
HV-4525	M1-0229-A (F-1) M2-0229 (D-4)	BF/MO	24	3	В	Α	С	N/A	MT/CS (6)	N/A	PIT/ 2YR	Non-Safety Loop Flowpath Isolation
HV-4526	M1-0229-8 (A-5) M2-0229 (D-6)	BF/MO	24	3	В	A	С	N/A	MT/CS (6)	N/A	PIT/ 2YR	Non-Safety Loop Flowpath Isolation
HV-4527	M1-0229-B (A-5) M2-0229 (D-6)	BF/MO	24	3	В	Α	С	N/A	MT/CS (6)	N/A	PIT/ 2YR	Non-Safety Loop Flowpath Isolation
FV-4536	M1-0229-A (F-2) M2-0229 (A-1)	BF/A0	10	3	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	CCW Flowpath Boundary
FV-4537	M1-0229-B (B-2) M2-0229 (G-1)	BF/A0	10	3	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	CCW Flowpath Boundary

Flow								Te	est Parameters	/Schedul	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
PV-4552	M1-0229-A (D-5) M2-0229-A (E-5)	BA/AO	3	3	В	A	N/A (1)	N/A	N/A	F0/Q	PIT/ 2YR	Safety Chilled Water Condenser Cooling Flow Control
PV-4553	M1-0229-B (D-5) M2-0229-B (D-1)	BA/AO	3	3	В	Α	N/A (1)	N/A	N/F.	F0/Q	PIT/ 2YR	Safety Chilled Water Condenser Cooling Flow Control
HV-4572	M1-0229 (B-2) M2-0229-A (C-4)	BF/MO	18	3	В	Α	0	N/A	MT/Q	N/A	PIT/ 2YR	RHR Heat Exchanger Cooling Flowpath
HV-4573	M1-0229-B (F-6) M2-0229-B (F-4)	BF/MO	18	3	В	Α	0	N/A	MT/Q	N/A	PIT/ 2YR	RHR Heat Exchanger Cooling Flowpath
HV-4574	M1-0229 (8-4) M2-0229-A (C-2)	BF/MO	18	3	В	A	0	N/A	MT/Q	N/A	PIT/ 2YR	Containment Spray Heat Exchanger Cooling Flowpath
HV-4575	M1-0229-B (F-6) M2-0229-B (F-5)	BF/MO	18	3	В	Α	0	N/A	MT/Q	N/A	PIT/ 2YR	Containment Spray Heat Exchanger Cooling Flowpath

								Tes	t Parameters	/Schedule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
HV-4631A	M1-0230-A (D-3) M2-0230-A (C-5)	GL/A0	2	3	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Non-Safety Flowpath (Process Sample Cooling) Isolation
HV-4631B	M1-0230-A (D-6) M2-0230-A (C-6)	GL/A0	2	3	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Non-Safety Flowpath (Process Sample Cooling) Isolation
FV-4650A	M1-0230-A (F-2) M2-0230 (F-2)	BF/AO	10	3	8	A	С	N/A	MT/CS (6)	FC/CS	PIT/ 2YR	Non-Safety Flowpath (Ventilation Chillers, Letdown Chiller) Isolation
FV-4650B	M1-0230-B (A-5) M2-0230 (F-5)	BF/AD	10	3	В	A	С	N/A	MT/CS (6)	FC/CS	PIT/ 2YR	Non-Sasety Flowpath (Ventilation Chillers, Letdown Chiller) Isolation
HV-4696	M1-0231 (C-4) M2-0231 (A-4)	GA/MO	4	2	A	Α	С	LTJ/TS	MT/Q	N/A	PIT/ 2YR	Containment Isolation & RCP Thermal Barrier Rupture Isolation
HV-4699	M1-0231-A (B-6) M2-0230-A (E-2)	GA/MO	8	2	В	A	С	N/A	MT/CS (4)	N/A	PIT/ 2YR	Passive Pipe Break Isolation (inside Containment)
HV-4700	M1-0231-A (B-6) M2-0230-A (E-3)	GA/MO	8	2	Α	Α	С	LTJ/TS	MT/CS (4)	N/A	PIT/ 2YR	Containment Isolation & Passive Pipe Break Isolation (inside Containment)

								Tes	t Parameters	/Schedule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator _Type_	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Iest</u>	Exercise <u>Test</u>	Fail Safe Test	Position Indicator Test	Remarks
HV-4701	M1-0231 (C-4) M2-0231 (A-6)	GA/MO	8	2	A	A	С	LTJ/TS	MT/CS (4)	N/A	PIT/ 2YR	Containment Isolation
HV-4708	M1-0231 (B-4) M2-0230-A (E-4)	GA/MO	8	2	A	A	С	LTJ/TS	MT/CS (4)	N/A	PIT/ 2YR	Containment Isolation
HV-4709	M1-0231 (B-4) M2-0230-A (F-4)	GA/MO	4	2	A	A	С	LTJ/TS	MT/Q	N/A	PIT/ 2YR	Containment Isolation & RCP Thermal Barrier Rupture Isolation
HV-4710	M1-0231 (B-1) M2-0230-A (F-3)	GL/AO	4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation
HV-4711	M1-0231 (B-2) M2-0230-A (F-5)	GL/AO	4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation
HV-4725	M1-0231 (C-5) M2-0231-A (F-3)	GL/AO	2	2	A		С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation

PAGE 10

							PAGE 10					
								les	t Parameters		0-71	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Stze	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	ExerciseTest	Fail Safe Test	Position Indicator Test	Remarks
HV-4726	M1-0231 (B-5) M2-0231-A (G-3)	GL/AO	2	2	A	A	С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation
CC-9042	M1-0229-8 (A-5) M2-0229 (D-6)	RE/SA	3/4 x 1	3	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Non-Safegaurds Loop Supply Relief Valve
CC-0103	M1-0229 (B-2) M2-0229-A (C-3)	RE/SA	1.5 x 3	3	С	Α	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Residual Heat Removal Hx Relief Valve
CC-0156	M1-0229-B (F-5) M2-0229-B (F-4)	RE/SA	1.5 x 3	3	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Residual Heat Removal Hx Relief Valve
CC-0183	M1-0229-A (E-4) M2-0229 (A-4)	RE/SA	3/4 x 1	3	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Component Cooling Water Hx Relief Valve
CC-0184	M1-0229-B (B-4) M2-0229 (F-4)	RE/SA	3/4 x 1	3	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Component Cooling Water Hx Relief Valve
CC-0293	M1-0229 (B-3) M2-0229-A (C-2)	RE/SA	3/4 x 1	3	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Containment Spray Hx Relief Valve

									Test Paramet	ers/Sche	dule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise _Test_	Fail Safe Test	Position Indicator Test	Remarks	
CC-6294	M1-0229-B (F-6) M2-0229-B (E-5)	RE/SA	3/4 × 1	3	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Containment Spray Hx Relief Valve	8
CC-0722	M1-0231-A (D-1) M2-0231 (D-1)	RE/SA	3/4 × 1	3	С	Α	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	Component Cooling Water Supply Line	

NOTES

- 1. X-PCV-H116A, -H116B, UPS A/C Condenser Cooling Flow Control Valves; PV-4552, -4553, Safety Chilled Water Condenser Cooling Flow Control Valves, are exempt from inservice testing per OM Part 10, para, 1.2(a)(2). However, the equipment they serve rely on the valves going to their fail-safe open position upon loss of valve actuating power. Also, valves FV-4552 and PV-4553 are relied on to maintain the fully closed position when the Safety Chillers are in standby. Therefore these valves will be fail-safe tested and, in the case of PV-4552 and PV-4553, will be observed to ensure they assume their closed standby position.
- 2. CC-0646. -0657. -0687. -0694; 1CC-1075. -1076. -1077. -1078; 2CC-0371. -0372. -0373. -0374. RCP Thermal Barrier Rupture Isolation Check Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full-stroke exercised during plant operation because isolating the thermal barrier coolers to perform reverse flow testing would cause thermal overpressurization of the coolers and piping due to pump heat and challenge the relief valves on the system. Part-stroke close exercising is not applicable.
- 3. CC-0629, -0831, Containment Penetration Thermal Relief/Isolation Check Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full-stroke exercised during plant operation because both open and close testing of these valves requires isolating CCW to the RCP's for extended periods of time, possibly causing equipment damage in the case of CC-0629 or thermal overpressurization of the thermal barrier coolers and piping in the case of CC-0831. Similarly, part-stroke open testing during plant operation cannot be performed. Part-stroke close exercising is not applicable.
- 4. CC-0713. HV-4699, -4700, -4701, -4708, Containment Isolation Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full-stroke exercised during plant operation because securing flow to test the valves would interrupt essential cooling to the RCP bearing oil coolers and motor air coolers, introducing an unnecessary risk of costly damage. HV-4699, -4700, -4701, -4708 cannot be part-stroke close exercised because their control systems are such that the valves are either fully open or fully closed. Part-stroke close exercising is not applicable to check valve CC-0713.

NOTES

- 5. X-PV-3583, -3584, -3586, Control Room A/C Condenser Cooling Flow Control Valves, are exempt from inservice testing per OM Part 10, para. 1.2(a)(2). These valves are motor operated and fail as-is and thus are not subject to fail-safe testing.
- FV-4650A, -4650B, Non-Safety Chillers Cooling Flowpath Isolation Valves; HV-4524, -4525, -4526, -4527, Non-Safety Loop Cooling Flowpath Isolation Valves, are full-stroke exercised at cold siutdowns. These valves cannot be full-stroke exercised during plant operation because securing flow to test the valves would interrupt cooling to essential equipment causing undesirable transients or possibly equipment damage. The cooling water flow pertubation resulting from closing or even partially closing FV-4650A or B can trip the ventilation chillers due to high condenser pressure which, among other things, causes a loss of Containment cooling. Chiller recovery after a trip is slow and equipment such as Ex-core Neutron Detectors could easily exceed allowable temperatures. Closing HV-4524, -4525, -4526 or -4527 will result in this same ventilation chiller transient as well as loss of essential cooling to the RCP bearing oil coolers and motor air coolers and the instrument air compressors, introducing an unnecessary risk of costly damage. HV-4524, -4525, -4526, -4527 cannot be part-stroke close exercised because their control systems are such that the valves are either fully open or fully closed.
- Relief Valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function.

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 3 - CHILLED WATER (SAFETY) PAGE 1 OF 2

								Te	st Parameters	/Schedule	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Jest</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
CH-0300	0311 (D-3)	CK/SA	1	3	С	A	0	N/A	CV/Q	N/A	N/A	Surge Tank Emergency Makeup Flowpath
CH-0301	0311 (F-3)	CK/SA	1	3	С	Α	С	N/A	CV/Q	N/A	N/A	Surge Tank Emergency Makeup Flowpath Boundary
CH-0302	0311 (D-3)	GL/MA	1	3	В	Α	0/0	N/A	ET/Q	N/A	N/A	Surge Tank Emergency Makeup Flowpath/Isolation
CH-0305	0311 (E-3)	GL/MA	1	3	В	A	0/C	N/A	ET/Q	N/A	N/A	Surge Tank Emergency Makeup Flowpath/Isolation
HV-6720	0311 (D-3)	GL/A0	1	3	В	Α	0	N/A	MT/Q	F0/Q	PIT/ 2YR	Surge Tank Emergency Makeup Flowpath
CH-0600	M1-0311 (F-2) M2-0311 (F-2)	RE/SA	3/4 X 1	3	С	A	N/A (1)	N/A	SRV/ 10YR	N/A	N/A	Safety Chilled Water Recirculation Pump Discharge Relief Valves
CH-0601	M1-0311 (F-5) M2-0311 (F-5)	RE/SA	3/4 X 1	3	С	A	N/A (1)	N/A	SRV/ 10YR	N/A	N/A	Safety Chilled Water Recirculation Pump Discharge Relief Valve

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 3 - CHILLED WATER (SAFETY) PAGE 2

NOTES

 Relief Valves do not perform a specific safety function. Relief Valves are used to protect systems/components that perform a specific safety function. 8

								Te	st Parameters	/Schedul		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator Test	Remarks
XCS-0037	M1-0257 (C-3)	CK/SA	3/4	3	С	Α	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
XCS-0039	M1-0257 (C-5)	CK/SA	3/4	3	С	Α	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
XCS-0041	M1-0257 (C-4)	CK/SA	3/4	3	С	Α	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
XCS-0044	M1-0257 (C-6)	CK/SA	3/4	3	С	Α	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
FCV-0110B	M1-0255 (F-5) M2-0255-2 (F-3)	DA/AO	2	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath Boundary
FCV-0111A	M1-0255-2 (C-2) M2-0255-2 (C-2)	GL/A0	2	3	В	Р	С	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath Boundary
FCV-01118	M1-0255 (G-3) M2-0255-2 (F-2)	DA/A0	2	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath Boundary & Boron Dilution Flowpath Isolation (during Mode 6)

								Tes	st Parameters	/Schedule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
LCV-0112B	M1-0255 (E-6) M2-0254 (C-4)	GA/MO	4	2	В	A	C	N/A	MT/CS (1)	N/A	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header (upon low VCT level) & Boron Dilution Flowpath Isolation
FCA-0115C	M1-0255 (D-6) M2-0254 (C-4)	GA/MO	4	2	В	A	С	N/A	MT/CS (1)	N/A	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header (upon low VCT level) & Boron Dilution Flowpath Isolation
LCV-01120	M1-0255 (C-5) M2-0254 (B-5)	GA/MO	8	2	В	A	0/0	N/A	MT/CS (1)	N/A	PIT/ 2YR	ECCS Injection Flowpath & Boration Flowpath/ECCS Recirculation Flowpath Boundary
LCV-0112E	M1-0255 (C-4) M2-0254 (B-5)	GA/MO	8	2	В	A	0/0	N/A	MT/CS (1)	N/A	PIT/ 2YR	ECCS Injection Flowpath & Boration Flowpath/ECCS Recirculation Flowpath Boundary
LCV-0459	M1-0253-A (B-4) M2-0253 (B-3)	GL/A0	3	1	В	A	С	N/A	MT/CS (2)	FC/CS	PIT/ 2YR	Reactor Coolant Pressure Boundary
LCV-0460	M1-0253-A (B-4) '2-0253 (A-3)	GL/AO	3	1	В	A	С	N/A	MT/CS (2)	FC/CS	PIT/ 2YR	Reactor Coolant Pressure Boundary
8100	M1-0253 (F-1) M2-0253 (D-6)	GL/MO	2	2	Α	A	С	LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	Containment Isolation

								Tes	st Parameters	/Scheduli			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator 	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks	
8104	M1-0255-2 (F-5) M2-0255-2 (B-3)	GL/MO	2	2	В	A	0	N/A	MT/Q	N/A	PIT/ 2YR	Boration Flowpath	
8105	M1-0255-1 (A-2) M2-0255 (D-1)	GA/MO	3	2	A	A	0/C	LTJ/TS	MT/CS (2)	N/A	PIT/ 2YR	Boration Flowpath/ECCS Flowpath Boundary & Containment Isolation	
8106	M1-0255-1 (B-2) M2-0255 (C-1)	GA/MO	3	2	В	A	0/C	N/A	MT/CS (2)	N/A	PIT/ 2YR	Boration Flowpath/ECCS Flowpath Boundary	
8109	M1-0255-1 (E-1) M2-0254 (D-3)	GL/MO	2	2	В	Р	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8110	M1-0255 (8-2) M2-0254 (A-2)	GL/MO	2	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8111	M1-0255 (B-2) M2-0254 (A-2)	GL/MO	2	2	В	Α	С	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Flowpath Boundary	

							Cafatu	Tes	t Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Iest</u>	Remarks
8112	M1-0253 (F-1) M2-0255-1 (B-4)	GL/MO	2	2	A	A	C	LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	Containment Isolation
8145	M1-0253-A (C-6) M2-0255 (F-4)	GA/AO	2	1	В	Α	С	N/A	MT/CS (4)	FC/CS	PIT/ 2YR	Reactor Coolant Pressure Boundary
8146	M1-0253-A (C-5) M2-0255 (F-3)	GL/AD	3	2	В	P	0	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath
8147	M1-0253-A (C-5) M2-0255 (F-3)	GL/A0	3	2	В	Р	0	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath
8152	M1-0253-A (F-2) M2-0253 (F-3)	GL/AO	3	2	А	A	С	LTJ/TS	MT/CS (2)	FC/CS	PIT/ 2YR	Containment Isolation
8153	M1-0253-A (E-1) -253 (B-5)	GL/A0	1	1	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Reactor Coolant Pressure Boundary
8154	M1-0253-A (F-1) M2-0253 (A-5)	GL/A0	1	1	В	A	C	N/A	MT/Q	FC/Q	PIT/ 2YR	Reactor Coolant Pressure Boundary

								Tes	st Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator _Type_	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
8160	M1-0253-A (E-2) M2-0253 (E-3)	GL/A0	3	2	A	A	С	LTJ/TS	MT/CS (2)	FC/CS	PIT/ 2YR	Containment Isolation
CS-8180	M1-0253 (F-1) M2-0255-1 (B-4)	CK/SA	3/4	2	A/C	A	0/0	LTJ/TS	CV/CS (3)	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation
8202A	M1-0255-1 (E-1) M2-0254 (D-1)	GL/SO	1	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header
8202B	M1-0255-1 (E-1) M2-0254 (D-1)	@/S0	1	2	В	Α -	С	N/A	MT/Q	FC/Q	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header
8210A	M1-0255-1 (D-1) M2-0254 (E-3)	GL/S0	1	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of PD Pump Suction Stabilizer Gas Supply from Charging Pumps' Suction Header
82108	M1-0255-1 (D-1) M2-0254 (E-3)	GL/S0	1	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of PD Pump Suction Stabilizer Gas Supply from Charging Pumps' Suction Header

							4	Te	st Parameters		THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWIND TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
HV-8220	M1-0255 (E-2) M2-0254 (D-2)	GA/S0	1	2	В	A	С	N/A	MT/CS (1)	FC/CS	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header (upon low VCT level)
HV-8221	M1-0255 (E-2) M2-0254 (D-2)	GA/S0	1	2	8	Α	С	N/A	MT/CS (1)	FC/CS	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of VCT Cover Gas from Charging Pumps' Suction Header (upon low VCT 'evel)
CS-8350A	M1-0253 (0-4) M2-0255-1 (C-6)	CK/SA	2	1	С	A	С	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
CS-83508	M1-0253 (D-4) M2-0255-1 (G-6)	CK/SA	2	1	С	A	C	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
CS -8350C	M1-0253 (D-4) M2-0255-1 (G-3)	CK/SA	2	1	С	A	C	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
CS-8350D	M1-0253 (D-4) M2-0255-1 (C-3)	CK/SA	2	1	С	A	С	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
8351A	M1-0253 (D-5) M2-0255 (D-5)	GL/MO	2	2	В	Α	C .	N/A	MT/CS	N/A	PIT/ 2YR	Containment Isolation

									st Parameters			
Valve _Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator Test	Remarks
8351B	M1-0253 (D-5) M2-0255 (D-4)	GL/MO	2	2	В	A	С	N/A	MT/CS	N/A	PIT/ 2YR	Containment Isolation
8351C	M1-0253 (D-5) M2-0255 (D-6)	GL/MO	2	2	В	A	С	N/A	MT/CS (3)	N/A	PIT/ 2YR	Containment Isolation
83510	M1-0253 (D-5) M2-0255 (D-5)	GL/MO	2	2	В	A	С	N/A	MT/CS (3)	N/A	PIT/ 2YR	Containment Isolation
CS-8367A	M1-0253 (D-4) M2-0255-1 (C-6)	CK/SA	2	1	С	A	С	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
CS-8367B	M1-0253 (D-4) M2-0255-1 (G-6)	CK/SA	2	1	C	A	С	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
CS-8367C	M1-0253 (D-4) M2-0255-1 (G-3)	CK/SA	2	1	С	Α	С	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary

								Te	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
CS-8367D	M1-0253 (D-4) M2-0255-1 (C-3)	CK/SA	2	1	С	A	С	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
CS-8368A	M1-0253 (D-5) M2-0255-1 (B-6)	CK/SA	2	2	С	A	С	N/A	CV/CS (3)	N/A	N/A	Containment Isolation
CS-8368B	M1-0253 (D-5) M2-0255-1 (E-6)	CK/SA	2	2	С	A	С	N/A	CV/CS (3)	N/A	N/A	Containment Isolation
CS-8368C	M1-0253 (D-5) M2-0255-1 (F-3)	CK/SA	2	2	С	Α	С	N/A	CV/CS (3)	N/A	N/A	Containment Isolation
CS-8368D	M1-0253 (D-5) M2-0255-1 (B-3)	CK/SA	2	2	С	A	С	N/A	CV/CS (3)	N/A	N/A	Containment Isolation
CS-8377	M1-0253-A (B-6) M2-0255 (G-4)	CK/SA	2	1	С	A	С	N/A	CV/CS (4)	N/A	N/A	Reactor Coolant Pressure Boundary

								Te	st Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Jest</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
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8378A	M1-0253-A (B-5) M2-0255	CK/SA	3	1	С	A	0	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
	(G-3)						C	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
8378B	M1-0253-A (B-5) M2-0255	CK/SA	3	1	С	Α	0	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
	(G-3)						С	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
8379A	M1-0253-A (B-5) M2-0255	CK/SA	3	1	C	Α	0	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
	(G-3)						С	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
83798	M1-0253-A (B-5) M2-0255	CK/SA	3	1	С	A	0	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
	(G-3)						С	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
8381	M1-0253-A (E-3)	CK/SA	3	2	A/C	А	0	N/A	CV/Q	N/A	N/A	Boration Flowpath
	M2-0255 (E-2)						C	LTJ/TS	CV/CS (2)	N/A	N/A	Containment Isolation

								Te	st Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-	Func- tion	Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Iest</u>	Position Indicator <u>Test</u>	Renarks
CS-8442	M1-0255-2 (F-5) M2-0255-2 (B-3)	CK/SA	2	2	С	A	0	N/A	CV/CS (5)	N/A	N/A	Boration Flowpath
CS-8473	M1-0257 (C-4) M1-0257 (C-5)	CK/SA	2	3	С	A	0/C	W/A	CV/Q	N/A	N/A	Boration Flowpath/Boration Flowpath Boundary
CS-8480A	M1-0255-1 (E-4) M2-0254 (E-5)	CK/SA	2	2	С	Α	С	N/A	CV/Q	N/A	N/A	ECCS Flowpath Boundary
CS-8480B	M1-0255-1 (E-5) M2-0254 (E-6)	CK/SA	2	2	С	A	С	N/A	CV/Q	N/A	N/A	ECCS Flowpath Boundary
8481A	M1-0255-1 (E-4) M2-0254 (F-5)	CK/SA	4	2	c	A	0	N/A	PS/Q CV/RF (6)	N/A	N/A	ECCS Flowpath & Boration Flowpath
							C	N/A	CV/Q	N/A	N/A	ECCS Flowpath Boundary
8481B	M1-0255-1 (D-5) M2-0254 (F-6)	CK/SA	4	2	С	A	0	N/A	PS/Q CV/RF (6)	N/A	N/A	ECCS Flowpath & Moration Flowpath
							С	N/A	CV/Q	N/A	N/A	ECCS Flowpath Boundary

								Te	st Parameters	/Schedul	0	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks
CS-8487	M1-0257 (C-4) M1-0257 (C-6)	CK/SA	2	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Boration Flowpath/Boration Flowpath Boundary
8497	M1-0255-1 (D-2) M2-0254 (F-4)	CK/SA	3	2	С	Α	С	N/A	CV/Q	N/A	N/A	ECCS Flowpath Boundary
8510A	M1-0255-1 (0-4) M2-0254 (F-5)	RE/SA	1-1/2 X 2	2	С	A	0/0	N/A	SRV (9)	N/A	N/A	High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
85108	M1-0255-1 (D-4) M2-0254 (F-6)	RE/SA	1-1/2 X 2	2	С	A	0/C	N/A	SRV (9)	N/A	N/A	High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
8511A	M1-0255-1 (D-4) M2-0254 (E-5)	GL/MO	2	2	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
8511B	M1-0255-1 (D-4) M2-0254 (E-6)	GL/MO	2	2	8	Α	0/C	N/A	MT/Q	N/A	PIT/ 2YR	High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
8512A	M1-0255-1 (D-4) M2-0254 (F-6)	GL/MO	2	2	В	Α	C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary

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Valve
1-8121 M1-0253 RE/SA 2 2 C A N/A N/A SRV/10YR N/A N/A RCP Seal Water Return L Relief Valve Relie
(C-6) M2-0254 (C-5) C N/A CV/CS N/A N/A ECCS Recirculation Flow Boundary CS-8000 M2-0251 RE/SA 1 2 C A N/A N/A SRV/10YR N/A N/A RCP Seal Water Return L Relief Valve 1-8121 M1-0253 RE/SA 2 2 C A N/A N/A SRV/10YR N/A N/A RCP Seal Water Return L Relief Valve 8124 M1-0255 RE/SA 3/4 2 C A N/A N/A SRV/10YR N/A N/A Charging Pump Suction L Relief Valve (B-5) X (10) Relief Valve
C N/A CV/CS N/A N/A ECCS Recirculation Flow Boundary 2CS-8000 M2-0251 RE/SA 1 2 C A N/A N/A SRV/10YR N/A N/A RCP Seal Water Return L Relief Valve 1-8121 M1-0253 RE/SA 2 2 C A N/A N/A SRV/10YR N/A N/A RCP Seal Water Return L Relief Valve 8124 M1-0255 RE/SA 3/4 2 C A N/A N/A SRV/10YR N/A N/A Charging Pump Suction L Relief Valve M2-0254 1
(D-3)
1-8121 M1-0253 RE/SA 2 (10) Relief Valve 3 8124 M1-0255 RE/SA 3/4 2 C A N/A N/A SRV/10YR N/A N/A Charging Pump Suction L (8-5) X (10) Relief Valve M2-0254 1
(B-5) X (10) Relief Valve M2-0254 1
2-8468B M2-0254 RE/SA 3/4 2 C A N/A N/A SRV/10YR N/A N/A Centrifugal Charging Pu (D-5) X (10) Suction Line Relief Val
2-8468C M2-0254 RE/SA 3/4 2 C A N/A N/A SRV/10YR N/A N/A Centrifugal Charging Pu (D-6) X (10) Suction Line Relief Val

NOTES

1. HV-8220, HV-8221, Charging/High Head Safety Injection Pumps Suction Vent Isolation Valves; LCV-0112B, LCV-0112C, Charging/High Head Safety Injection Pumps Suction from the VCT Isolation Valves; LCV-0112D, LCV-0112E, Charging/High Head Safety Injection Pumps Suction from the RWST Isolation Valves, are full-stroke exercised at cold shutdowns. LCV-0112D & E cannot be full-stroke exercised during plant operation because opening either of these valves introduces high concentration boric acid to the RCS via the charging system resulting in a reactivity transient and possibly a reactor shutdown. Further, the valves cannot be part-stroke exercised during plant operation because their control systems are such that the valves are either fully open or fully closed.

LCV-0112B & C cannot be full-stroke exercised during plant operation because closing either of these valves would deprive the charging pumps of a suction source. (The alternate suction source for the charging pumps via LCV-0112D & E cannot be used during plant operation as discussed above.)
Further, the valves cannot be part-stroke exercised during plant operation because their control systems are such that the valves are either fully open or fully closed.

HV-8220 and HV-8221 cannot be full or part-stroke exercised during plant operation because the operation of these valves is directly controlled off the limit switches of LCV-0112B & C and therefore they operate in conjunction with LCV-0112B & C cannot be exercised during plant operation as discussed above.

8105, 8106, Charging Line Isolation Valves, are full-stroke open and close exercised at cold shutdowns. 8152, 8160, Letdown Line Containment Isolation Valves; 8378A & B, 8379A & B, Charging Line Reactor Coolant Pressure Boundary Isolation Valves; 8381. Charging Line Containment Isolation Valve; LCV-0459, LCV-0460, Letdown Line Reactor Coolant Pressure Boundary Isolation Valves, are full-stroke closed exercised at cold shutdowns. These valves cannot be full-stroke close exercised during plant operation because closing the valves isolates charging flow to the RCS or letdown flow from the RCS. In that letdown flow is used to preheat charging flow, isolation of either charging or letdown or both will cause thermal transients on the RCS charging nozzles, the regenerative heat exchanger and the letdown heat exchanger for which they are not designed. Similarly, 8105 and 8106 cannot be open exercised during plant operation because the test involves first closing the valves.

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The subject power operated valves cannot be part-stroke close exercised during plant operation. In the case of 8105 and 8106, their control systems are such that the valves are either fully open or fully closed. In the case of 8152, 8160, LCV-0459 and LCV-0460, their stroke times are so short that any part-stroke exercise attempt would effectively be a full-stroke and thus is not performed for the reasons given above. Part-stroke close exercising is not applicable to the subject check valves (8378A & B. 8379A & B. 8381).

3. 8100. 8112, CS-8180, Excess Letdown/Seal Water Return Containment Isolation Valves; CS-8350A, B, C, D, CS-8367A, B, C, D, Seal Injection Line Reactor Coolant Pressure Boundary Isolation Valves; 8351A, B, C, D, CS-8368A, B, C, D, Seal Injection Line Containment Isolation Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full-stroke close exercised during plant operation because the test necessarily isolates injection flow to the RCP seals or isolates leakoff flow from the seals. Isolation of seal injection flow will cause unfiltered reactor coolant to flow up through the seals possibly resulting in seal damage from entrained contaminants. Isolation of seal leakoff flow will result in a seal backpressure transient which will challenge the overpressure protection on the seal leakoff line and could cause a seal to cock. Similarly, CS-8180 cannot be full or part-stroke open exercised during plant operation because the test necessarily isolates RCP seal leakoff flow.

The subject power operated valves (8100, 8112, 8351A, B, C, D) cannot be part-stroke exercised during plant operation because their control systems are such that the valves are either fully open or fully closed. Part-stroke close exercising is not applicable to the subject check valves (CS-8180, CS-8350A, B, C, D, CS-8367A, B, C, D, CS-8368A, B, C, D).

4. 8145 and CS-8377. Pressurizer Auxiliary Spray Line Reactor Coolant Pressure Boundary Isolation Valves, are full-stroke close exercised at cold shutdowns. These valves cannot be exercised during plant operation because opening the valves initiates auxiliary spray flow to the pressurizer. Auxiliary spray initiation during plant operation will result in a rapid RCS pressure decrease and possibly a low pressure reactor trip. Further, auxiliary spray initiation during plant operation imposes thermal transients on the pressurizer spray nozzle and on the pressurizer vessel itself for which they are not designed.

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- 5. CS-8442. Emergency Boration Line Check Valve, is full-stroke exercised at cold shutdowns. This valve cannot be full or part-stroke open exercised during plant operation because initiating flow through this valve introduces high concentration boric acid to the RCS via the charging system resulting in a reactivity transient and possibly a reactor shutdown.
- 8481A & B. Charging/High Head Safety Injection Pumps Discharge Check Valves, are part-stroke open exercised every three months and are full-stroke open exercised at refueling outages. These valves cannot be full-stroke open exercised during plant operation or during cold shutdowns because the full flow path discharges into the RCS. During plant operation, the high RCS pressure will not allow the maximum required injection flowrate to be achieved. The valves cannot be full-stroke exercised at cold shutdowns because the high flowrates required could challenge the RCS Cold Overpressure Mitigation System as well as impose hydraulic transients on the charging system and on the Reactor Coolant Pump seals which can cause them to cock.
- 7. 8546. Charging/High Head Safety Injection Pumps Suction from the RWST Check Valve, is part-stroke open exercised at cold shutdowns, full-stroke open exercised at refueling outages and full-stroke close exercised at cold shutdowns. (Part-stroke close exercising is not applicable.) This valve cannot be full or part-stroke exercised during plant operation because initiating flow through this valve introduces high concentration boric acid to the RCS via the charging system resulting in a reactivity transient and possibly a reactor shutdown. Further, during plant operation the high RCS pressure will not allow the maximum required injection flowrate to be achieved. The valves cannot be full-stroke exercised at cold shutdowns because the high flowrates required could challenge the RCS Cold Overpressure Mitigation System as well as impose hydraulic transients on the charging system and on the Reactor Coolant Pump seals which can cause them to cock.
- 8. Charging service is alternated approximately every refueling outage between the normal charging line (containing check valves 8378A and 8378B) and the alternate charging line (containing check valves 8379A and 8379B) such that neither flowpath will be exposed to more than 60% of the thermal transients associated with stoppage and restart of charging flow. In accordance with OM Part 10, para 4.3.2.5, the pair of check valves in the charging line which is out of service need not be open exercise tested quarterly as they are only relief on to perform their open boration path function when they are designated to be in service. However, they must be open exercise tested within 3 months prior to placing the charging line back in service.

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The check valves in both the normal and alternate charging lines are relied on to perform their closed reactor coolant pressure boundary function at all times when this function is required. Therefore, the close exercise test schedule must be maintained for all four check valves, regardless of which charging line is designated to be in service.

- 9. Under the provisions of 10CFR50.55a(f)(6)(ii), the NRC staff has imposed augmented inservice test requirements for relief valves 1-8510A, 1-8510B, 2-8510A, 2-8510B. As directed by the safety evaluation dated January 29, 1993 for Unit 1 and NUREG-0797. SER Supplement 26 for Unit 2, the following frequency requirements shall apply (in lieu of the OM Part 1, para, 1.3.4 frequency requirements) for performance testing the subject valves.
 - A. One valve from each unit shall be performance tested each fuel cycle. Both valves from each unit shall be performance tested within any two fuel cycles.
 - B. If the tested valve from a given unit fails the set pressure determination portion of the performance test, then the other valve from that unit shall be performance tested. If the tested valve from a given unit fails one of the other criteria of the performance test (i.e., visual examination, seat tightness determination or balancing device integrity verification) then the cause shall be evaluated and the need to test the other valve from that unit shall be determined.
 - C. Both valves from a given unit shall be performance tested following any system actuation which results in the valves discharging. This performance test shall be performed at the next cold shutdown of sufficient duration to perform these activities.
- 10. Relief valves do not perform a specific safety functions. Relief valves are used to protect systems/components that perform a specific safety function.

4

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY PAGE 1 OF 7

								Te	est Parameters	/Schedul	2	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
CT-0013	M1-0232 (E-2) M2-0232 (E-2)	CK/SA	10	2	С	A	0	N/A	CV/Q	N/A	N/A	Containment Spray Flowpath
CT-0020	M1-0232 (F-2) M2-0232 (F-2)	CK/SA	2	2	С	A	0	N/A	CV/Q	N/A	N/A	Chemical Additive Flowpath
CT-0025	M1-0232-A (E-3) M2-0232-A (E-3)	CK/SA	16	2	С	A	0/0	N/A	CV/Q	N/A	N/A	Containment Spray Injection Flowpath/Sump Recirculation Flowpath Boundary
CT-0031	M1-0232 (F-3) M2-0232 (F-3)	CK/SA	2	2	С	A	0	N/A	CV/Q	N/A	N/A	Chesical Additive Flowpath
CT-0042	M1-0232 (E-3) M2-0232 (E-3)	CK/SA	10	2	С	A	0	N/A	CV/Q	N/A	N/A	Containment Spray Flowpath
CT-0047	M1-0232 (F-3) M2-0232 (F-3)	CK/SA	4	2	С	A	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
CT-0048	M1-0232 (F-3) M2-0232 (F-3)	CK/SA	4	2	C	A	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY

PAGE 2

								Te	est Parameters	/Schedule	2	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator Test	Remarks
CT-0063	M1-0232 (E-5) M2-0232 (E-5)	CK/SA	4	2	С	A	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
CT-0064	M1-0232 (E-6) M2-0232 (E-6)	CK/SA	4	2	С	A	0	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
CT-0065	M1-0232 (E-5) M2-0232 (E-5)	CK/SA	10	2	С	A	0	N/A	CA\d	N/A	N/A	Containment Spray Flowpath
CT-0072	M1-0232 (F-4) M2-0232 (F-4)	CK/SA	2	2	С	A	0	N/A	CV/Q	N/A	N/A	Chemical Additive Flowpath
CT-0077	M1-0232-A (0-2) M2-0232-A (D-2)	CK/SA	16	2	С	A	0/C	N/A	CV/Q	N/A	N/A	Containment Spray Injection Flowpath/Sump Recirculation Flowpath Boundary
CT-0082	M1-0232 (F-5) M2-0232 (F-5)	CK/SA	2	2	С	A	O	N/A	CV/Q	N/A	N/A	Chemical Additive Flowpath

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 8 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY PAGE 3

								Tes	t Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
CT-0094	M1-0232 (E-6) M2-0232 (E-6)	CK/SA	10	2	С	A	0	N/A	CV/Q	N/A	N/A	Containment Spray Flowpath
CT-0142	M1-0232 (B-5) M2-0232 (B-5)	CK/SA	16	2	A/C	A	0/C	LTJ/TS	CVD/RF (1) RR V4	N/A	N/A	Containment Spray Flowpath/ Containment Isolation
CT-0145	M1-0232 (B-2) M2-0232 (B-2)	CK/SA	16	2	A/C	Α	0/0	LTJ/TS	CVD/RF (1) RR V4	N/A	N/A	Containment Spray Flowpath/ Containment Isolation
CT-0148	M1-0232-A (E-4) M2-0232-A (E-4)	CK/SA	16	2	С	A	0	N/A	CVD/RF (1) RR V4	N/A	N/A	Sump Recirculation Flowpath
CT-0149	M1-0232-A (D-3) M2-0232-A (D-3)	CK/SA	16	2	С	Α	0	N/A	CVD/RF (1) RR V4	N/A	N/A	Sump Recirculation Flowpath
CT-0309	M1-0232-A (C-5) M2-6232-A (C-5)	RE/SA	3/4 X 1	2	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	HV-4782 Bonnet Overpressure Relief/Containment Isolation
CT-0310	M1-0232-A (C-6) M2-0232-A (C-6)	RE/SA	3/4 X 1	2	С	Α	0/C	N/A	SRV/ 10YR	N/A	N/A	HV-4783 Bonnet Overpressure Relief/Containment Isolation

2

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY PAGE 4

								T6	est Parameters	/Schedu1	e	
	Flow	Valve/					Safety			Fail	Position	
Valve	Diagram	Actuator		Code	Cate-	Func-	Func.	Leak	Exercise	Safe	Indicator	
Number	(Coord.)	Type	Size	Class	gory	tion	Pos.	Test	Test	Test	Test	Remarks
LV-4754	M1-0232-A (F-5) M2-0232-A (F-5)	DA/MO	3	3	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	Chemical Additive Flowpath/ Chemical Additive Tank Isolation
LV-4755	M1-0232-A (F-5) M2-0232-A (F-5)	DA/MO	3	3	В	A	0/0	N/A	MT/Q	N/A	PIT/ 2YR	Chemical Additive Flowpath/ Chemical Additive Tank Isolation
HV-4758	M1-0232-A (0-2) M2-0232-A (D-2)	GA/MO	16	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Sump Recirculation Flowpath Boundary
HV-4759	M1-0232-A (E-3) M2-0232-A (E-3)	GA/MO	16	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Sump Recirculation Flowpath Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY

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							TAUE 3	Tes	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak Jest	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
FV-4772-1	M1-0232 (E-6) M2-0232 (E-6)	GL/MO	4	2	В	A	0/0	N/A	MT/Q	N/A	PIT/ 2YR	Pump Miniflow Flowpath/ Containment Spray Flowpath Boundary
FV-4772-2	M1-0232 (E-5) M2-0232 (E-5)	GL/MO	4	2	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	Pump Miniflow Flowpath/ Containment Spray Flowpath Boundary
FV-4773-1	M1-0232 (F-3) M2-0232 (F-3)	GL/MO	4	2	8	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	Pump Miniflow Flowpath/ Containment Spray Flowpath Boundary
FV-4773-2	M1-0232 (F-2) M2-0232 (F-2)	GL/MO	4	2	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	Pump Miniflow Flowpath/ Containment Spray Flowpath Boundary
HV-4776	M1-0232 (C-5) M2-0232 (C-5)	GA/MO	16	2	A	A	0/C	LTJ/TS	MT/Q	N/A	PIT/ 2YR	Containment Spray Flowpath/ Containment Isolation
HV-4777	M1-0232 (C-2) M2-0232 (C-2)	GA/MO	16	2	A	Α	0/C	LTJ/TS	MT/Q	N/A	PIT/ 2YR	Containment Spray Flowpath/ Containment Isolation
HV-4782	M1-0232-A (C-5) M2-0232-A (C-5)	GA/MO	16	2	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	Sump Recirculation Flowpath/Containment Isolation

COMANCIE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY

PAGE 6

							17.500			C-1-4-2		
Valve	Flow Diagram	Valve/ Actuator	Fire	Code	Cate-	Func-	Safety Func.	Leak	Exercise	Fail Safe	Position Indicator	Remarks
Number	(Coord.)	Type	Size	Class	gory	tion	Pos.	Test	Test	Test	Test	SEMERAS
HV-4783	M1-0232-A (C-6) M2-0232-A (C-6)	GA/MO	16	2	3	A	0/0	N/A	MT/Q	N/A	PIT/ 2YR	Sump Recirculation Flowpath/Containment Isolation
CTVBCA-01	M1-0232-A (F-4) M2-0232-A (F-4)	VB/SA	2	3	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	Chemical Additive Tank Ventpath/System Boundary
CTVBCA-02	M1-0232-A (F-4) M2-0232-A (F-4)	VB/SA	2	3	С	Α	0/C	N/A	SRV/ 10YR	N/A	N/A	Chemical Additive Tank Ventpath/System Boundary
CT-0005	(D-2) M2-0232 (D-2)	RE/SA	3/4 X 1	2	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Containment Spray HX Relief Valve
CT-0056	M1-0232 (D-4) M2-0232 (D-4)	PE/SA	3/4 X 1	2	C	A	N/A (2)	N/A	SRV/16YR	N/A	N/A	Containment Spray HX Relief Valve
CT-0218	M1-0232-A (F-4) M2-0232-A (F-4)	RE/SA	1.5 X 2.5	2	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Chemical Additive Tank Relief Malve

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 5 - CONTAINMENT SPRAY Page 7

NOTES

- 1. CT-0142, CT-0145, Containment Spray Header Check Valves: CT-0148, CT-0149, Containment Spray Pump Suction Check Valves from the Recirculation Sumps, are disassembled at refueling outages to verify operability. Full or part-stroke exercising these valves with flow is not practicable. In the case of CT-0142 and CT-0145, the flowpath downstream of the valves is open to the Containment Building via the spray headers. No meaningful flow can be achieved through these valves without deluging the Containment and causing a significant cleanup problem and potential equipment damage. In the case of CT-0148 and CT-0149, the flowpath upstream of the valves is open to the normally dry Containment Recirculation Sumps. Sump inventory only exists post-accident when the RWST has been depleted. Flooding the sumps for test purposes would introduce contaminants into the Containment Spray System and the RWST which otherwise contain reactor quality water. Additionally, sump makeup would be required at a high rate to protect the Containment Spray Pumps from a loss of suction.
- Relief valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function.

8

								Te	st Parameters	/Schedule	2	
Valve Number	Flow Diagram (Coord.)	Valve/ Accuator 	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
00-0004	M1-0215-F (F-5) M2-0215-F (F-5)	CK/SA	2	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Fuel Oil Flowpath/Fuel Oil Flowpath Boundary
DO-0005	M1-0215-F (F-6) M2-0215-F (F-6)	CK/SA	2	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Fuel Oil Flowpath/Fuel Oil Flowpath Boundary
DO-0016	M1-0215-G (F-5) M2-0215-G (F-5)	CK/SA	2	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Fuei Oil Flowpath/Fuel Oil Flowpath Boundary
DO-0017	M1-0215-G (F-6) M2-0215-G (F-6)	CK/SA	2	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Fuel Oil Flowpath/Fuel Oil Flowpath Boundary
DO-0049	M1-0215-F (C-4) M2-0215-F (C-4)	CK/SA	2	3	С	A	0	N/A	CV/Q	N/A	N/A	Fuel Oil Flowpath
1D0-0050	M1-0215-G (C-4)	CK/SA	2	3	С	Α	0	N/A	CV/Q	N/A	N/A	Fuel Oil Flowpath
200-0952	M2-0215-G (C-4)	CK/SA	2	3	С	А	0	N/A	CV/Q	N/A	N/A	Fuel Oil Flowpath

								Te	est Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise <u>Test</u>	Fail Safe <u>Jest</u>	Position Indicator Test	Remarks
DO-0058	M1-0215-D (F-1) M2-0215-D (F-1)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
00-0059	MI-0215-D (F-5) M2-0215-D (F-5)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
DO-0060	M1-0215-E (F-1) M2-0215-E (F-1)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
DO-0061	M1-0215-E (F-5) M2-0215-E (F-5)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
100-0062	M1-0215-0 (F-5)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
100-0063	M1-0215-D (E-1)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
100-0064	M1-0215-E (F-5)	CK/SA	1-1/2	3	С	Α	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
100-0065	M1-0215-E (E-1)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation

	-							Te	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator Test	Remarks
200-0074	M2-0215-D (E-1)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
200-0075	M2-0215-D (F-5)	CK/SA	1-1/2	3	С	Α	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
200-0076	M2-0215-E (E-1)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
200-0077	M2-0215-E (F-5)	CK/SA	1-1/2	3	С	A	С	N/A	CV/Q RR V2	N/A	N/A	Safety-Related Air Receiver to Non-Safety Air Supply Isolation
00-0104	M1-0215-H (F-3) M2-0215-H (F-3)	CK/SA	1	3	С	A	С	N/A	CV/Q	N/A	N/A	Jacket Water Flowpath Boundary
00-0107	M1-0215-H (E-4) M2-0215-H (E-4)	(1)	8	3	В	A	N/A (1)	N/A	N/A	N/A	N/A	Jacket Water Temperature Control
00-0157	M1-0215-8 (C-6) M2-0215-B (C-6)	CK/SA	6	3	С	A	0	N/A	CV/Q	N/A	N/A	Lube Oil Flowpath
DO-0158	M1-0215-B (C-6) M2-0215-B (C-6)	CK/SA	6	3	С	A	С	N/A	CV/Q	N/A	N/A	Lube Oil Flowpath Boundary

								Te	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
00-0204	M1-0215-J (F-3) M2-0215-J (F-3)	CK/SA	1	3	C	A	С	N/A	CV/Q	N/A	N/A	Jacket Water Flowpath Boundary
00-0207	M1-0215-3 (E-4) M2-0215-3 (E-4)	(1)	8	3		A	N/A (1)	N/A	N/A	N/A	N/A	Jacket Water Temperature Control
DO-0257	M1-0215-C (C-6) M2-0215-C (C-6)	CK/SA	6	3	С	A	0	N/A	CV/Q	N/A	N/A	Lube Oil Flowpath
DO-0258	M1-0215-C (C-6) M2-0215-C (C-6)	CK/SA	6	3	C	A	С	N/A	CV/Q	N/A	N/A	Lube Oil Flowpath Boundar

PAGE 5

							FAGE 5	Te	st Parameters	/Schedule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise _Test	Fail Safe Test	Position Indicator Test	Remarks
00-0111	M1-0215-F (E-5) M2-0215-F (E-5)	RE/SA	1.5 X 2	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Diesel Generator Fuel Oil Transfer Pump Discharge Relief Valve
00-0123	M1-0215-D (F-2 M2-0215-D (F-2)	RE/SA	1 X 1	3	С	A	N/A	N/A	SRV/10YR	N/A	N/A	Diesel Generator Starting Air Receiver Relief Valve
00-0129	M1-0215-D (F-4) M2-0215-D (F-4)	RE/SA	1 X 1	3	С	A	N/A (2)	N/a	SRV/10YR	N/A	N/A	Diesel Generator Starting Air Receiver Relief Valve
0-0187	M1-0215-F (E-5) M2-0215-F (E-5)	RE/SA	1.5 X 2	3	C	Α	N/A (2)	N/A	SRV/10YR	N/A	N/A	Diesel Generator Fuel Oil Transfer Pump Discharge Relief Valve
0-0211	M1-0215-G (E-5) M2-0215-G (E-5)	RE/SA	1.5 X 2	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Diesel Generator Fuel Oil Transfer Pump Discharge Relief Valve
0-0223	M1-0215-E (F-2) M2-0215-E (F-2)	RE/SA	1 X 1	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Diesel Generator Starting Air Receiver Relief Valve
0-0229	M1-0215-E (F-4) M2-0215-E (F-4)	RE/SA	1 X 1	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Diesel Generator Starting Air Receiver Relief Valve
00-0287	M1-0215-G (E-5) M2-0215-G (E-5)	RE/SA	1.5 X 2	3	С	A	N/A (2)	N/A	SRV/10YR	N/A	N/A	Diesel Generator Fuel Oil Transfer Pump Discharge Relief Valve

Rev. 8 January 31, 1997 8

NOTES

- 1. DO-0107, DO-0207. Jacket Water Temperature Control Valves, are exempt from inservice testing per OM Part 10, 1.2(a)(2). These three-way valves have a self-contained thermostatic element which causes them to modulate in response to changing jacket water temperature to divert more or less flow through the Jacket Water Cooler, as required. The valves do not fail safe and thus are not subject to fail-safe testing.
- 2. Relief valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function.

8

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 11 - RESIDUAL HEAT REMOVAL PAGE 1 9F 5

								Те	st Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
HCV-0606	M1-0260 (8-3) M2-0260 (8-3)	BF/AO	10	2	В	P	0	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath
HCV-0607	M1-0260 (8-5) M2-0260 (8-5)	BF/AO	10	2	В	P	0	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath
FCV-0610	M1-0260 (D-1) M2-0260 (D-1)	GL/MO	3	2	В	A	0/0	N/A	MT/Q	N/A	PIT/ 2YR	Pump Miniflow Path/ECCS & RHR Flowpath Boundary
FCV-0611	M1-0260 (D-6) M2-0260 (D-6)	GL/MO	3	2	В	A	0/0	N/A	MT/Q	N/A	PIT/ 2YR	Pump Miniflow Path/ICCS & RHR Flowpath Boundary
FCV-0618	M1-0260 (C-3) M2-0260 (C-3)	BF/AO	8	2	6	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
FCV-0619	MI-0260 (C-6) MZ-0260 (C-6)	BF/AO	8	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
HV-4178 (1)	M1-0228 (A-3) M1-0228 (A-3)	AN/AO	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	RHR System to Non-Safety Process Sampling System Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 11 - RESIDUAL HEAT REMOVAL PAGE 2

								Tes	st Parameters	/Schedul	p	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
TRANSCEL	TANK AND	_1166_	2165	Self-Marial	30/1	27301		1000		1544	2525	NOW! NO
HV-4179 (1)	M1-0228 (A-↓) M2-0228 (A-4)	AN/AO	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	RHR System to Non-Safety Process Sampling System Isolation
HV-4182 (1)	M1-0228-1 (8-4) M2-0228-1 (8-4)	AN/AO	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	RHR System to Non-Safety Post Accident Sampling System Isolation
8701A	M1-0260 (F-3) M2-0260 (F-3)	GA/MO	12	1	A	A	0/0	LT/TS (2) LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	RHR Flowpath/Containment Isolation & Reactor Coolant Pressure Boundary
G701B	M1-0260 (F-5) M2-0260 (F-5)	GA/MO	12	1	A	A	0/C	LT/TS (2) LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	RHR Flowpath/Containment Isolation & Reactor Coolant Pressure Boundary
8702A	M1-0260 (F-3) M2-9260 (F-3)	GA/MO	12	1	A	A	0/C	121	MT/CS (3)	N/A	PIT/ 2YR	RHR Flowpath/Reactor Coolant Pressure Boundary
87028	M1-0260 (F-5) M2-0260 (F-5)	GA/NO	12	1	A	A	0/€	LT/TS (2)	MT/CS (3)	N/A	PIT/ 2YR	RHR Flowpath/Reactor Coolant Pressure Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 11 - RESIDUAL HEAT REMOVAL

PAGE 3

								Tes	t Parameters	/Schedul	a	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator Test	Remarks
8708A	M1-0260 (E-2) M2-0260 (E-2)	RE/SA	3 X 4	2	A/C	Р	0/C	LTJ/TS	SRV/ 10YR (4)	N/A	N/A	RCS Overpressure Protection/RHR Flowpath Boundary & Containment Isolation
87088	M1-0260 (E-5) M2-0260 (E-5)	RE/SA	3 X 4	2	A/C	P	0/C	LTJ/T ₃	SRV/ 10YR (4)	N/A	N/A	RCS Overpressure Protection/RHR Flowpath Boundary & Containment Isolation
8716A	M1-0260 (B-3) M2-0260 (B-3)	GA/M0	10	2	8	A	0/C	N/A	MT/CS (6)	N/A	PIT/ 2YR	ECCS Injection Flowpath/ECCS Recirculation Flowpath Boundary
8716B	M1-0260 (B-4) M2-0260 (B-4)	GA/MO	10	2	В	Α	0/0	N/A	MT/CS (6)	N/A	PIT/ 2YR	ECCS Injection Flowpath/ECCS Recirculation Flowpath Boundary
8717	M1-0260 (A-4) M2-0260 (A-4)	GA/MA	8	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8730A	M1-0260 (B-3) M2-0260 (B-3)	CK/SA	10	2	С	A	0/C	N/A	CV/CS (5)	N/A	N/A	ECCS & RHR Flowpath/ECCS Injection Flowpath Boundary
8730B	M1-0260 (8-5) M2-0260 (8-5)	CK/SA	10	2	С	A	0/C	N/A	CV/CS (5)	N/A	N/A	ECCS & RHR Flowpath/ECCS Injection Flowpath Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 11 - RESIDUAL HEAT REMOVAL PAGE 4

								Te	st Parameters	/Schedul	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe <u>Jest</u>	Position Indicator <u>Test</u>	Remarks
8842	M1-0263-B (B-2) M2-0263-A (F-2)	RE/SA	3/4 x 1	2	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	RHR To Hot Leg Injection Relief Valve
8856A	M1-0263-B (B-1) M2-0263-A (F-1)	RE/SA	3/4 x 1	2	С	A	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	RHR to Cold Leg Injection Relief Valve
88568	M1-0263-B (B-3) M2-0263-A (F-3)	RE/SA	3/4 X 1	2	С	Α	N/A (7)	N/A	SRV/ 10YR	N/A	N/A	RHR to Cold Leg Injection Relief Valve

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 11 - RESIDUAL HEAT REMOVAL Page 5

NOTES

- HV-4178 and HV-4179 are part of Process Sampling System and HV-4182 is part of Post Accident Sampling System but are included in this table 1. because their safety functions are more closely associated with Residual Heat Removal System. The test frequency requirements of Technical Specification 4.4.5.2.2 apply for leak testing of 8701A, 8701B, 8702A, 8702B, which are more 2 restrictive than the test frequency requirements of OM Part 10, para. 4.2.2.3(a). 8701A, 8701B, 8702A, 8702B, RHR Suction Isolation Valves from the RCS Hot Legs, are full-stroke exercised at cold shutdowns. These valves cannot be full or part-stroke exercised during plant operation because they are interlocked to remain closed to prevent over essurizing the relatively low pressure Residual Heat Removal System from the high pressure Reactor Coolant System. 8708A and 8708B, RHR Suction Relief Valves, are Passive and are therefore exempt from performance testing. (Reference OM Part 10, Table 1.) Technical Specification 4.4.8.3.2(c), however, requires that these valves be performance tested to the requirements of ASME Section XI. 8730A and 8730B, RHR Pump Discharge Check Valves, are full-stroke open exercised at cold shutdowns. These valves cannot be full-stroke open 5 exercised during plant operation because the normal flowpath discharges into the relatively higher pressure Reactor Coolant System. Also, the alternate flowpath through the RHR to RWST return line cannot be used during plant operation since opening this line defeats both trains of the Low Pressure Safety Injection System. Part-stroke open exercising these valves during plant operation is not practicable. The only possible flowpath is through the SI test header which yields flowrates too small (approx. 5 gpm) to be meaningful for assessing the operational readiness of these valves. The valves are full-stroke close exercised at cold shutdowns at the same frequency as the open exercising for the reasons
- 6. 8716A and 8716B, RHR Train A & B Pump Discharge Crosstie Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full-stroke exercised during plant operation because the closure of either valve coincident with the failure of an RHR pump would render the system capable of providing flow to only two RCS cold legs during post-LOCA injection, whereas the design bases for the Emergency Core Cooling System assume flow to all four cold legs. (Reference IE Information Notice No. 87-01.) 8716A and 8716B cannot be part-stroke exercised because their control systems are such that the valves are either fully open or fully closed.

described above

7. Relief valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function.

								Te	st Parameters	/Schedule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
SI-0047	M1-0261 (F-1) M2-0261 (D-1)	GA/MA	24	2	В	P	0	N/A	N/A	N/A	PIT/ 2YR	ECCS Injection Flowpath
\$1-0182	M1-0263-B (B-6) M2-0263-A (B-5)	RE/SA	3/4 X 1	2	С	A	O/C	N/A	SRV/ 10YR	N/A	N/A	8811A Bonnet Overpressure Relief/Containment Isolation
SI-0183	M1-0263-B (B-5) M2-0263-A (B-6)	RE/SA	3/4 X 1	2	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	8811B Bonnet Overpressure Relief/Containment Isolation
8800A	M1-0261 (D-4) M2-0261 (D-4)	GL/A0	3	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	RWST to Non-Safety Purification System Isolation
8800B	M1-0261 (F-4) M2-0261 (D-3)	GL/A0	3	2	8	Α	С	N/A	MT/Q	FC/Q	PIT/ 2YR	RNST to Non-Safety Purification System Isolation
8801A	M1-0261 (C-2) M2-0261 (E-4)	GA/MO	4	2	В	A	0/0	N/A	MT/PF (2)	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath & Boration Flowpath/Containment Isolation & Passive Pipe Break Isolation
8801B	M1-0261 (C-2) M2-0261 (E-5)	GA/MO	4	2	В	A	0/C	N/A	MT/RF (2)	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath & Boration Flowpath/ Containment Isolation & Passive Pipe Break Isolation

									st Parameters	Schedul	2	
Wa Tron	Flow	Valve/		Code	Cate-	Func-	Safety Func.	Leak	Exercise	Fail Safe	Position Indicator	
Valve Number	Diagram (Coord.)	Actuator Type	Size	Class	gory_	tion	Pos.	Test	Test	Test	<u>lest</u>	Remarks
8802A	M1-0263-A (A-2) M2-0262 (F-2)	GA/MO	4	2	В	A	0/C	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS to Hot Legs Flowpath/ ECCS to Cold Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation
88028	M7 F763-A 3) M2-0262 (F-5)	GA/MO	4	2	В	A	0/C	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS to Hot Legs Flowpath/ ECCS to Cold Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation
8804A	M1-0261 (F-5) M2-0261 (A-6)	GA/MO	8	2	8	A	0/C	N/A	MT/CS (4)	N/A	PIT/ 2YR	ECCS Recirculation Flowpath/Passive Pipe Break Isolation
8804B	M1-0263-A (F-3) M2-0262 (B-4)	GA/MO	8	2	В	A	0/C	N/A	MT/CS (4)	N/A	PIT/ 2YR	ECCS Recirculation Flowpath/Passive Pipe Break Isolation
8806	M1-0263-A (G-2) M2-0262 (A-2)	GA/MO	8	2	В	A	С	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS Flowpath Boundary (during Recirculation)
8807A	M1-0261 (E-5) M2-0261 (B-6)	GA/MO	6	2	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath/Passive Pipe Break Isolation

2

								Tes	t Parameters	/Schedul	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Iest</u>	Remarks
88078	M1-0261 (E-5) M2-0261 (B-6)	GA/MO	6	2	В	A	0/0	N/A	MT/0	N/A	PIT/ 2YR	ECCS Recirculation Flowpath/Passive Pipe Break Isolation
3808A	M1-0262 (C-2) M2-0263-B (E-2)	GA/MO	10	2	В	Α	0	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS from Accumulators to Cold Legs Flowpath
88088	M1-0262 (C-3) M2-0263-B (E-3)	GA/MO	10	2	В	A	0	N/A	MT/CS (3)	M/A	PIT/ 2YR	ECCS from Accumlators to Cold Legs Flowpath
8608C	M1-0262 (C-5) M2-0263-B (E-5)	GA/MO	10	2	В	A	0	N/A	MT/CS (3)	N/A	P11/ 2YR	ECCS from Accumulators to Cold Legs Flowpath
8808D	M1-0262 (C-6) M2-0263-B (E-6)	GA/MO	10	2	В	A	0	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS from Accumulators to Cold Legs Flowpath
8809A	M1-0263-B (A-2) M2-0263-A (F-1)	GA/MO	10	2	A	A	0/C	LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath/ ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation & Contain- ment Isolation
8809B	M1-0263-B (A-4) M2-0263-A (F-3)	GA/MO	10	2	A	A	0/C	LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath/ ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation & Contain- ment Isolation

PAGE 4

								Te	st Parameters	/Schedul	Remarks	
Valve Number	Flow Diagram (Coord.)	agram Actuator Co	Code Class		Func-	Safety Func. Pos.	Leak <u>Jest</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>		
8811A	0.263-B (0.5) (2-0.263-A (8-5)	GA/MO	14	2	8	A	0/C	E/A	MT/CS (5)	N/A	PIT/ 2YR	ECCS Recirculation Flowpath/Containment Isolation & Passive Pipe Break Isolation
88113	M1-0263-B (B-5) M2-0263-A (B-6)	GA/MO	14	2	Đ	A	O/C	N/A	MT/CS (5)	N/A	PIT/ 2YR	ECCS Recirculation Flowpath/Containment Isolation & Passive Pipe Break Isolation
8812A	M1-0263-8 (F-2) M2-0263-A (B-2)	GA/MO	14	2	8	A	С	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary & Shutdown Cooling Flowpath Boundary (during Safety Grade Cold Shutdown)
88128	M1-0263-B (F-3) M2-0263-A (B-3)	GA/MO	. 14	2	В	A	C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary & Shutdown Cooling Flowpath Boundary (during Safety Grade Cold Shutdown)
8813	M1-0263-A (E-5) M2-0262 (C-3)	GL/M0	2	2	В	A	C	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary
8514A	M1-0263-A (D-3) M2-0262 (D-3)	GL/MO	1-1/2	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary

			Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Te	st Parameters	/Schedul		
Valve Dia	Flow Diagram (Coord.)	Valve/ Actuator Type						Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
88148	M1-0263-A (D-4) M2-0262 (D-4)	GL/MO	1-1/2	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary
8815	M1-0261 (B-2) M2-0261 (E-4)	CK/SA	3	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath & Boration Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
8818A	M1-0263 (E-4) M2-0263 (C-4)	CK/SA	6	1	A/C	A	С	LT/TS (1)	PS/CS CV/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
88188	M1-0263 (D-5) M2-0263 (C-5)	CK/SA	6	1	A/C	A	0 C	LT/TS (1)	PS/CS CV/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
8818C	M1-0263 (C-6) M2-0263 (E-6)	CK/SA	6	1	A/C	A	0 C	LT/TS (1)	PS/CS CV/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
8818D	M1-0263 (C-6) M2-0263 (F-6)	CK/SA	6	1	A/C	A	0 C	LT/TS (1)	PS/CS CY/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
SI-8819A	M1-0263 (D-4) M2-0263 (D-4)	CK/SA	2	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation

								Te	st Parameters	/Schedule		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak Test	Exercise lest	Fail Safe Jest	Position Indicator Test	Remarks
SI-8819B	M1-0253 (C-4) M2-0263 (D-4)	CK/SA	2	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
SI-8819C	M1-0263 (B-4) M2-0263 (E-4)	CK/SA	2	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
51-88190	M1-0263 (8-4) M2-0263 (F-4)	CX/SA	2	1	A/C	A	v.c	LT/TS (1)	CV/RF (6)	N/A	N/A	CCCS to Cold Legs Flowpath/Reactor Coolant Pressure Boundary & Containment Isolation
8821A	M1-0263-A (C-3) M2-0262 (E-3)	GA/MD	4	2	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath/ ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation
68218	M1-0263-A (C-4) M2-0262 (E-4)	GA/MO	4	2	R	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath/ ECCS to Hot Legs Flowpath Boundary & Passive Pipe Break Isolation
8823	M1-0263 (E-3) M2-0263	GL/AD	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & FCCS Flowpath Boundary

(B-3)

2

								Tes	st Parameters	/Schedul	е		
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator _Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe <u>lest</u>		Remarks	
8824	M1-0263 (E-2) M2-0263 (B-2)	GL/A0	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary	2
8825	M1-0263 (E-1) M2-0263 (B-2)	GL/A0	3/4	2	A	A	С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary	
8835	M1-0263-A (A-5) M2-0262 (F-3)	GA/MO	4	2	В	A	0/C	N/A	MT/CS (3)	N/A	PIT/ 2YR	ECCS to Cold Legs Flowpath/ ECCS to Hot Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation	
8840	M1-0263-B (A-3) M2-0263-A (F-2)	GA/MO	10	2	A	A	0/C	LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	ECCS to Hot Legs Flowpath/ ECCS to Cold Legs Flowpath Boundary & Containment Isolation & Passive Pipe Break Isolation	
8841A	M1-0263 (C-1) M2-0263 (E-1)	CK/SA	6	1	A/C	A	0/0	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary & Containment Isolation	1
88418	M1-0263 (C-2) M2-0263 (E-2)	CK/SA	6	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary & Containment Isolation	
8843	M1-0261 (B-2) M2-0261 (E-4)	GL/A0	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary	2

								Test Parameters/Schedule					
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks	
8871	M1-0262 (B-1) M2-0263-C (D-2)	GL/A0	3/4	2	A	A	C	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation	
8875A	M1-0262 (E-1) M2-0263-B (C-1)	GL/A0	1	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8875B	M1-0262 (E-2) M2-0263-B (C-2)	GL/A0	1	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8875C	M1-0262 (E-4) M2-0263-B (C-4)	GL/AG	1	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
88750	M1-0262 (E-5) M2-0263-B (C-5)	GL/AO	1	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8877A	M1-0262 (C-2) M2-0263-B (E-2)	GL/A0	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	

								Te	st Parwmeters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	\$120	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Iest</u>	Remarks
88778	M1-0262 (C-3) M2-0263-B (E-3)	GL/AO	3/4	2	В	p	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8877C	M1-0262 (C-5) M2-0263-B (E-5)	GL/A0	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
88770	M1-0262 (C-6) M2-0263-B (E-6)	GL/A0	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8878A	M1-0262 (E-2) M2-0263-B (C-2)	GL/A0	1	2	В	p	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
88788	M1-0262 (E-3) M2-0263-B (C-3)	GL/A0	1	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8878C	M1-0262 (E-5) M2-0263-B (C-5)	GL/A0	1	2	8	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8878D	M1-0262 (E-6) M2-0263-B (C-6)	GL/AD	1	2	В	Р	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary

								Te	st Parameters			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise _Test_	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
8879A	M1-0263 (D-4) M2-0263 (C-4)	GL/AO	3/4	2	В	p	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8879B	M1-0263 (C-5) M2-0263 (E-5)	GL/AD	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8879C	M1-0263 (B-5) M2-0263 (F-5)	GL/AO	3/4	2	В	P	C	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
88790	M1-0263 (B-6) M2-0263 (E-6)	GL/A0	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8880	M1-0262 (G-1) M2-0263-8 (A-1)	GL/AO	1	2	A	A	С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation
8681	M1-0263 (E-1) M2-0263 (B-1)	GL/AO	3/4	2	В	A	С	N/A	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary

								Tes	t Parameters	/Schedule			
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Erercise Test	Fail Safe Test	Position Indicator Test	Remarks	
8882	M1-0261 (B-3) M2-0261 (F-3)	GL/A0	3/4	2	8	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8888	M1-0263-A (B-2) M2-0262 (E-2)	GL/A0	3/4	2	A	A	С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary	2
8889A	M1-0263 (B-2) M2-0263 (F-2)	GL/AO	3/4	2	В	P	C	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8889B	M1-0263 (B-1) M2-0263 (E-1)	GL/AO	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8889C	41-9263 (B-1) M2-0263 (F-1)	GL/AO	3/4	2	В	p	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
88890	M1-0263 (B-3) M2-0263 (F-3)	GL/AO	3/4	2	В	P	С	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary	
8890A	M1-0263 (E-4) M2-0263 (B-4)	GL/A0	3/4	2	A	A	С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary	2

								Tes	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Iest</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator Test	Remarks
8890B	M1-0263 (E-5) M2-0263 (C-5)	GL/AO	3/4	2	A	A	С	LTJ/TS	MT/3	FC/Q	PIT/ 2YR	Containment Isolation & ECCS Flowpath Boundary
SI-8900A	M1-0261 (A-2) M2-0261 (G-4)	CK/SA	1-1/2	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath & Boration Flowpath/Reactor Coolant Pressure Boundary
\$1-89008	M1-0261 (A-1) M2-0261 (G-4)	CK/SA	1-1/2	1	A/C	A	0/0	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath & Boration Flowpath/Reactor Coolant Pressure Boundary
S1-8900C	M1-0261 (A-3) M2-0261 (G-5)	CK/SA	1-1/2	1	A/C	A	0/0	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Flowpath & Boration Flowpath/Reactor Coolant Pressure Boundary
\$1-89000	M1-0261 (A-2) M2-0261 (G-5)	CK/SA	1-1/2	1	A/C	A	O/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Cold Legs Frowpath & Boration Flowpath/Reactor Coolant Pressure Boundary
SI-8905A	M1-0263 (C-2) M2-0263 (D-2)	CK/SA	2	1	A/C	A	O/C	L?/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary & Containment Isolation

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								Tes	st Parameters			
Valve	Flow	Valve/ Actuator		Code	Cate-	Func-	Safety Func.	Leak	Exercise	Fail Safe	Position Indicator	
Number	(Coord.)	Type	Size	Class	gory	tion	Pos.	Test	Test	<u>Jest</u>	Test	Remarks
S1-8905B	M1-0263 (D-1) M2-0263 (D-1)	CK/SA	2	1	A/C	Α	0/0	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary & Containment Isolation
S1-8905C	M1-0263 (D-1) M2-0263 (D-2)	CK/SA	2	1	A/C	A	0/0	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary & Containment Isolation
SI-8905D	M1-0263 (C-3) M2-0263 (D-3)	CK/SA	2	1	A/C	A	0/0	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary & Containment Isolation
SI-8919A	MI-0263-A (0-3) M2-0262 (0-3)	CK/SA	1-1/2	2	С	A	0/C	N/A	CV/Q	N/A	N/A	SI Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
SI-89198	M1-0263-A (D-4) M2-0262 (D-4)	CK/SA	1-1/2	2	С	A	0/C	N/A	CV/Q	N/A	N/A	SI Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
8922A	M1-0263-A (D-2) M2-0262 (D-2)	CK/SA	4	2	С	A	0/0	N/A	CV/RF (6)	N/A	N/A	ECCS Flowpath/ECCS Flowpath Boundary
89228	M1-0263-A (D-3) M2-0262 (D-5)	CK/SA	4	2	С	A	0/0	N/A	CV/RF (6)	N/A	N/A	ECCS Flowpath/ECCS Flowpath Boundary

	Flms							Te	st Parameters	/Schedu]	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
8923A	M1-0263-A (F-2) M2-0262 (A-2)	GA/MO	6	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Passive Pipe Break Isolation
8923B	M1-0263-A (F-3) M2-0262 (A-5)	GA/MO	6	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Passive Pipe Break Isolation
8924	M1-0261 (E-4) M2-0261 (B-5)	GA/MO	6	2	В	A	С	N/A	MT/Q	N/A	PIT/ 2YR	Passive Pipe Break Isolation
8926	M1-0263-A (G-2) M2-0262	CK/SA	8	2	С	Α	0	N/A	PS/Q CV/RF (6)	N/A	N/A	ECCS Injection Flowpath/ ECCS Recirculation Flowpath Boundary
	(A-2)						C	N/A	CV; RF (6)	N/A	N/A	
8948A	M1-0262 (A-2) M2-0263-B (G-2)	CK/SA	10	1	A/C	A	0 C	LT/TS (1)	PS/CS CV/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary
89488	M1-0262 (A-3) M2-0263-B (G-3)	CK/SA	10	1	A/C	Α	0 C	LT/TS (1)	F5/CS CV/RF (9) CV/CS	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary

- 9

								Te	st Parameters	/Schedul	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator 	Size	Code Class	Cate-	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Iest</u>	Remarks
8948C	M1-0262 (A-5) M2-0263-B (G-5)	CK/SA	10	1	A/C	A	0 C	LT/TS (1)	PS/CS CV/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary
894BD	M1-0262 (A-6) M2-0263-B (G-6)	CK/SA	10	1	A/C	Α	0 C	LT/TS (1)	PS/CS CV/RF (9) CV/CS (9)	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary
1949A	M1-0263 (A-2) M2-0263 (F-2)	CK/SA	6	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary
9498	M1-0263 (A-1) M2-0263 (G-1)	CK/SA	6	1	A/C	A	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary
949C	M1-0263 (A-1) M2-0263 (G-2)	CK/SA	6	1	A/C	Α	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary
9490	M1-0263 (A-3) M2-0263 (F-3)	CK/SA	6	1	A/C	Α	0/C	LT/TS (1)	CV/RF (6)	N/A	N/A	ECCS to Hot Legs Flowpath/ Reactor Coolant Pressure Boundary
-8956A 2-8956A	M1-0262 (B-2) M2-0263-B (E-2)	CK/SA	10	1	A/C	A	0/C	LT/TS (1)	CV/RF (8) CVD/RF (8) RR V7	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary

								Tes	st Parameters	/Scheduli	2	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise _Test_	Fail Safe Test	Position Indicator <u>Iest</u>	Remarks
1-8956B 2-8956B	M1-0262 (B-3) M2-0263-B (E-3)	CK/SA	10	1	A/C	A	O/C	LT/TS (1)	CV/RF (8) CVD/RF (8) RR V7	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary
1-8956C 2-8956C	M1-0262 (E-5) M2-0263-B (E-5)	CK/SA	10	1	A/C	A	0/C	LT/TS (1)	CV/RF (8) CVD/RF (8) RR V7	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary
1-8956D 2-8956D	M1-0262 (B-6) M2-0263-B (E-6)	CK/SA	10	1	A/C	A	0/C	LT/TS (1)	CV/RF (8) CVD/RF (8) RR V7	N/A	N/A	ECCS to Cold Legs Flowpath/ Reactor Coolant Pressure Boundary
8958A	M1-0263-B (F-2) M2-0263-A (B-2)	CK/SA	14	2	С	A	0/C	N/A	CV/CS (7)	N/A	N/A	ECCS Injection Flowpath/ ECCS Recirculation Flowpath Boundary
8958B	M1-0263-B (F-4) M2-0263-A (B-3)	CK/SA	14	2	С	А	0/C	N/A	CV/CS (7)	N/A	N/A	ECCS Injection Flowpath/ ECCS Recirculation Flowpath Boundary
8964	M1-0262 (A-1) M2-0263-C (E-2)	GL/A0	3/4	2	A	A	С	LTJ/TS	MT/Q	FC/Q	PIT/ 2YR	Containment Isolation

								Tes	t Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
\$1-8968	M1-0262 (F-1) M2-0263-B (A-1)	CK/SA	1	2	A/C	A	С	LTJ/TS	CV/Q	N/A	N/A	Containment Isolation
8969A	M1-0261 (E-4) M2-0261 (B-5)	CK/SA	8	2	С	A	0/0	N/A	CV/RF (6)	N/A	N/A	ECCS Recirculation Flowpath/ECCS Flowpath Boundary (during Re- circulation with Loss of RHR B)
89698	M1-0263-A (F-3) M2-0262 (B-4)	CK/SA	8	2	С	Α	0/C	N/A	CV/RF (6)	N/A	N/A	ECCS Recirculation Flowpath/ECCS Flowpath Boundary (during Re- circulation with Loss of RHR A)
151-8972	M1-0262 (B-1)	RE/SA	3/4 X 1	2	A/C	A	0/C	LTJ/TS	SRV/ 10YR	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation
251-8983	M2-0263-C (D-2)	RE/SA	3/4 X 1	2	A/C	A	0/C	LTJ/TS	SRV/ 10YR	N/A	N/A	Containment Penetration Thermal Relief/Containment Isolation

								Te	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test		Remarks
8851	M1-0263-A (B-04) M1-0262 (F-03)	RE/SA	3/4 X 1	2	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI PMP Discharge to Cold Leg
8853A	M1-0263-A (B-02) M2-0262 (F-02)	RE/SA	3/4 x 1	2	С	Α	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI Pump Discharge to Hot Log
8853-B	M1-0263-A M2-0262	RE/SA	3/4 X 1	2	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI PMP Discharge to Hot Log
8858-A	M1-0263-A (F-02) M2-0262 (B-02)	RE/SA	3/4 X 1	2	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI PMP Suction Relief
8858-B	M1-0263-A (F-03) M2-0262 (B-04)	RE/SA	3/4 X 1	2	С	Α	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI PMP Section Relief

								Te	st Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks
8855A	M1-0262 (b-91) M2-0263-B (C-01)	RE/SA	1 X 2	2	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI Accumulator Relief
88558	Mi-0262 (D-02) M2-0263-B (C-02)	RE/SA	1 X 2	2	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI Accumulator Relief
8855C	M1-0262 (D-04) M2-0263-B (C-04)	RE/SA	1 X 2	2	С	A	N/A (10)	N/A	SRV 10YR	N/A	N/A	SI Accumulator Relief
88550	M1-0261 (D-05) M2-0263-B (C-05)	RE/SA	1 X 2	2	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	SI Accumulator Relief
SI-0176	M1-0262 (F-06) M2-0263-B (B-06)	RE/SA	3/4 X 1	3	C	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	Nitrogen Supply Header Relief
SI-0177	M1-0262 (G-06) M-0263-B (A-06)	RE/SA	3/4 X 1	3	С	A	N/A (10)	N/A	SRV/ 10YR	N/A	N/A	Nitrogen Supply Header Relief

NOTES

- The test frequency requirements of Technical Specification 4.4.5.2.2 apply for leak testing of 8815; 8818A, B, C, D; SI-8819A, B, C, D; 8841A. B; SI-8900A, B, C, D; SI-8905A, B, C, D; 8948A, B, C, D; 8949A, B, C, D; 8956A, B, C, D. The Technical Specification 4.4.5.2.2 test frequency requirements are more restrictive than the test frequency requirements of DM Part 10, para. 4.2.2.3(a).
- 2. 8801A and B. High Head Safety Injection Isolation/Containment Isolation Valves, are full-stroke exercised at refueling outages. These valves cannot be full-stroke exercised during plant operation because opening the valves results in unnecessary thermal transients on the RCS cold leg nozzles for which they are not designed and imposes hydraulic transients on the charging system and on the Reactor Coolant Pump seals which can cause them to cock. The valves cannot be full-stroke exercised at cold shutdowns because opening the valves admits high flow to the RCS through the relatively low resistance Safety Injection flowpath and could challenge the RCS Cold Overpressure Mitigation System as well as impose hydraulic transients on the Reactor Coolant Pump seals which can cause them to cock. 8801A and 8 cannot be part-stroke exercised because their control systems are such that the valves are either fully open or fully closed.
- 3. 8802A & B. SI Pumps to Hot Legs Valves: 8806. SI Pumps Suction from RWST Valve: 8808A. B. C. D. Accumulator Discharge Valves: 8809A & B. RHR Pumps to Cold Legs Valves: 8813. SI Pumps Miniflow Valve: 8835. SI Pumps to Cold Legs Valve: 8840. RHR Pumps to Hot Legs Valve, are full-stroke exercised at cold shutdowns. These valves cannot be full or part-stroke exercised during plant operation because moving the valves from their safe positions causes both trains of an ECCS subsystem to be rendered inoperable. (Consequently, these valves are required by Technical Specification 4.5.2(a) to be in their safe positions with power to their actuators removed at all times during plant operation.)
- 4. 8804A & B. High Head and Intermediate Head Pumps Suction from the RHR Heat Exchangers Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full or part-stroke exercised during plant operation because they are interlocked to remain closed until the Safety Injection Pumps miniflow line is isolated post-accident. As stated in Note 3 above, isolation of the Safety Injection Pumps miniflow line during plant operation causes both trains of that ECCS subsystem to be rendered inoperable.
- 8811A & B, Recirculation Sumps to RHR Pumps Isolation/Containment Isolation Valves, are full-stroke exercised at cold shutdowns. Full or part-stroke exercising of these calves during plant operation is not practicable due to the precautions necessary to conduct the test. The exercise test for these valves incolves draining a major portion of the respective RHR train (to prevent backfilling the Recirculation Sump) thus creating hundreds of gallons of liquid radwaste and long out-of-service times for the system. The subsequent system fill and vent is best facilitated by running the RHR pump and flowing through flowpaths which are not available during plant operation.

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6. 8815, SI-8900A, B. C. D. 8969A, High Head Safety Injection Flowpath Check Valves: SI-8819A, B. C. D. SI-8905A, B. C. D. 8922A & B. 8926, 8949A, B. C & D and 8969B. Intermediate Head Safety Injection Flowpath Check Valves: 8841A & B. Low Head Safety Injection Flowpath (to the Hot Legs) Check Valves are full-stroke exercised at refueling outages. These valves cannot be full or part-stroke open exercised during rlant operation or during cold shutdowns because the flowpaths discharge into the RCS.

In the case of the High Head subsystem, the valves cannot be full-stroke exercised during plant operation because the high RCS pressure will not allow the maximum required injection flowrate to be achieved. Part-stroke exercising during plant operation is not practicable because any flow through the valves results in unnecessary thermal transients on the RCS cold leg nozzles for which they are not designed and imposes hydraulic transients on the charging system and on the Reactor Coolant Pump seals which can cause them to cock. The check valves in the high head injection path cannot be full-stroke exercised at cold shutdowns because the high flowrates could challenge the RCS Cold Overpressure Mitigation System as well as impose hydraulic transients on the charging system and on the Reactor Coolant Pump seals which can cause them to cock. Part-stroke exercising at cold shutdowns is not practicable because the high head injection flowpath is not designed for throttled operation.

In the case of the Intermediate Head and Low Head subsystems, the valves cannot be full or part-stroke exercised during plant operation because the relatively higher pressure of the Reactor Coolant System will not allow forward flow through these paths. (An exception to this is valve 8926 which lies in the SI Pumps' miniflow path and thus is part-stroke open exercised quarterly during pump tests.) Part-stroke exercising certain check valves during plant operation via the SI test header is not practicable because this path yields flowrates too small (approx. 5 gpm) to be meaningful for assessing the operational readiness of these valves. The check valves in the intermediate head injection paths cannot be full-stroke exercised at cold shutdowns using the Safety Injection Pumps because the resulting high flowrates and pressures could challenge the RCS Cold Overpressure Mitigation System. The check valves in the low head injection paths to the hot legs (89498 & C) are not practicable to test at cold shutdowns because forward flow will disturb these Reactor Coolant Pressure Boundary Isolation Valves. Doing so requires leak testing the valves per the Technical Specification requirements identified in Note 1 above. This leak testing is not practicable to perform at cold shutdowns due to its complexity and critical path nature. Such testing would prevent the immediate return of a shutdown unit to power operation which is contrary to the intent of OM Part 10, paragraph 4.3.2.2.g. Part-stroke exercising these valves at cold shutdowns is not practicable because the flowpaths are not designed for throttled operation.

January 31, 1997

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The subject check valves are full-stroke close exercised at refueling outages at the same frequency as the full-stroke open exercise for the reasons described above. (Close exercising of valve 8926 is not practicable following its quarterly part-stroke open exercise. To do so would defeat both trains of the intermediate head subsystem. Therefore valve 8926 is also full-stroke close exercised at refueling outages coincident with its full-stroke open exercise.)

8958A & B. Low Head Safety Injection Flowpath Check Valves, are full-stroke exercised at cold shutdowns. These valves cannot be full or part-stroke open exercised during plant operation because the relatively higher pressure of the Reactor Coolant System will not allow forward flow through these paths. The flowpath through the RHR to RWST return line can be used at times to full-stroke exercise these valves; however, this path cannot be used during plant operation since opening this line defeats both trains of the Low Pressure Safety Injection System. Part-stroke exercising certain of these check valves during plant operation via the SI test header is not practicable because this path yields flowrates too small (approx. 5 gpm) to be meaningful for assessing the operational readiness of these valves.

The subject check valves are full-stroke close exercised at cold shutdowns at the same frequency as the full-stroke open exercise for the reasons described above.

Unit 1 Valves (1-8956A, B. C. and D)

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Beginning with the fifth refueling outage for Unit 1, these valves will be tested consistent with guidelines in Section 4.1.2 "Exercising Check Valves with Flow and Nonintrustive Techniques." of NUREG-1482. "Guidelines for Laservice Testing at Nuclear Power Plants." dated April 1995.

Relief from the ASME Code is not required because this method is considered "other positive means" of verifying disk movement.

Unit 2 Valves (2-8956A, B, C, and D)

2-8956A, B. C. D. Safety Injection Accumulators Flowpath Check Valves, are disassembled at refueling outages to verify operability. These valves cannot be full or part-stroke open exercised during plant operation because the relatively higher pressure of the Reactor Coolant System will not allow forward flow through the valves. Part-stroke exercising during plant operation via the SI test header is not practicable because this path yields flowrates too small (approx. 5 gpm) to be meaningful for assessing the operational readiness of these valves. The check valves cannot be full-stroke exercised at cold shutdowns because the resulting high flowrates could challenge the RCS Cold Overpressure Mitigation System. Part-stroke exercising these valves at cold shutdowns is not practicable because the flowpaths are not designed for throttled operation. Full-stroke exercising these valves with flow during refueling outages is not practicable because rapid blowdown of the Safety Injection Accumulators causes a cooling transient to occur in the gas space of the accumulators for which they are not designed.

The subject check valves are not close exercised during plant operation or cold shutdowns for the reasons described above.

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8818A, B, C, D, 8948A, B, C. D. Low Head Safety Injection Flowpath Check Valves, are full-stroke exercised at refueling outages to verify operability. These valves cannot be full or part-stroke open exercised during plant operation because the relatively higher pressure of the Reactor Coolant System will not allow forward flow through these paths. Part-stroke exercising of these check valves during plant operation via the SI test header is not practicable because this path yields flowrates too small (approximately 5 gpm) to be meaningful for assessing the operational readiness of these valves. It is not practicable to full stroke exercise these valves at cold shutdowns because the acoustic emission testing needed to verify the valves go full-open requires both Residual Heat Removal Pumps running and all Reactor Coolant Pumps secured to perform a satisfactory test. Both Residual Heat Removal Pumps are required to flow through a single SI header to achieve the hydraulic transient necessary to create the acoustic signature. During the test Residual Heat Removal flow must be secured. The Reactor Coolant Pumps must be secured to lower background noise sufficiently to record the acoustic signature. A partial stroke of these valves could be performed at cold shutdown using the same test lineup with only one Residual Heat Removal Pump running.

Non-intrusive testing techniques, such as the acoustic emission method applied here is considered "other positive means" as defined in ASME/ANSI OM-1987 Part 10, Paragraph 4.3.2.4(a). During the initial acoustic emission testing for these valves, the system flow conditions were established to cause the valves to fully stroke. During subsequent testing, all valves shall be fully stroked at repeatable system conditions. The acoustic emission monitoring of the valves, however, will only be performed on one valve per group per outage on a rotating schedule each time testing is performed (a sampling program). The groups will be four valves each, 8818A, B, C, D, and 8948A, B, C, D. If problems are found with the sample valve, all valves in the affected group must be tested using acoustic emission monitoring during the same outage.

The subject check valves are full-stroke close exercised at cold shutdowns because acoustic emission monitoring is not required for these tests.

10. Relief valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function

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COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 14 - SERVICE WATER PAGE 1 OF 5

								Te	st Parameters	/Schedul	9	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe <u>Test</u>	Position Indicator <u>Test</u>	Remarks 6
SW-0373	M1-0233 (D-3) M2-0233 (B-4)	CK/SA	24	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Service Water Flowpath/ Backflow Prevention (to facilitate pump restart) & Service Water Flowpath Boundary (following pump failure)
SW-0374	M1-0233 (E-3) M2-0233 (D-4)	CK/SA	24	3	С	A	0/C	N/A	CV/Q	N/A	N/A	Service Water Flowpath/ Backflow Prevention (to facilitate pump restart) & Service Water Flowpath Boundary (following pump failure)

								Te	st Parameters	/Schedul	9	
Valve	Flow Diagram	Valve/ Actuator		Code	Cate-	Func-	Safety Func	Leak	Exercise	Fail Safe	Position Indicator	
Number	(Coord.)	Type	Size	Class	gory	tion	Pos.	<u>Iest</u>	<u>Test</u>	Iest	Test	Remarks
HV-4286	M1-0233 (E-2) %2-0233 (D-3)	BF/MO	24	3	В	A	0/C	N/A	MT/Q	N/A	PIT/ 2YR	Service Water Flowpath/ Throttling during Pump Start
HV-4287	M1-0233 (D-2) M2-0233 (B-3)	BF/MO	24	3	В	A	0/0	N/A	MT/Q	N/A	PIT/ 2YR	Service Water Flowpath/ Throttling during Pump Start
HV-4393	M1-0234 (F-6) M2-0234 (F-6)	BF/MO	10	3	В	A	0	N/A	MT/Q	N/A	PIT/ 2YR	Service Water Flowpath
HV-4394	M1-0234 (F-1) M2-0234 (F-1)	BF/MO	10	3	В	A	0	N/A	MT/Q	N/A	PIT/ 2YR	Service Water Flowpath
HV-4395	M1-0234 (G-6) M2-0234	BF/MO	10	3	В	A	0	N/A	MT/RF (2)	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath

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								Te	est Parameters	/Schedul	e	
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func-	Safety Func. Pos.	Leak Test	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
	1222	and distance.	alles.	*****	akiliankan	distallines				-		
HV-4396	M1-0234 (G-1) M2-0234 (G-1)	BF/MO	10	3	В	A	0	N/A	MT/RF (2)	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath
SWVAVB-01	M1-0234 (A-6) M2-0234 (A-6)	VB/SA	2	3	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	Vent Path (for water hammer prevention)/Flowpath Boundary
SWVAVB-02	M1-0234 (A-1) M2-0234 (A-1)	VB/SA	2	3	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	Vent Path (for water hammer prevention)/Flowpath Boundary
SWVAVB-03	M1-0234 (B-4) M2-0234 (B-4)	VB/SA	1	3	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	Vent Path (for water hammer prevention)/Flowpath Boundary
SWVAVB-04	M1-0234 (E-3) M2-0234 (B-3)	VB/SA	1	3	С	A	0/C	N/A	SRV/ 10YR	N/A	N/A	Vent Path (for water hammer prevention)/Flowpath Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 14 - SERVICE WATER

PAGE 4

							Test Parameters/Schedule					
Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate- gory	Func- tion	Safety Func. Pos.	Leak <u>Test</u>	Exercise Test	Fail Safe Test	Position Indicator <u>Test</u>	Remarks
1SW-0448	M1-0234 (F-2)	RE/SA	3/4 X 1	3	C	A	N/A (3)	N/A	SRV/10YR	N/A	N/A	Diesel Jacket Water Cooler Relief Valve
15w-0449	M1-0234 (F-5)	RE/SA	3/4 X 1	3	C	A	N/A (3)	N/A	SRV/10YR	N/A	N/A	Diesel Jacket Water Cooler Relief Valve
2SW-0432	M2-0234 (F-2)	RE/SA	3/4 X 1	3	С	A	N/A (3)	N/A	SRV/10YR	N/A	N/A	Diesel Jacket Water Cooler Relief Valves
ZSW-0433	M2-0234 (F-5)	RE/SA	3/4 X	3	С	Α	N/A (3)	N/A	SRV/10YR	N/A	N/A	Diesel Jacket Water Cooler Relief Valve

COMANCHE PEAK STEAM ELECTRIC STATION UNITS 1 & 2 INSERVICE VALVE TESTING PLAN TABLE 14 - SERVICE WATER Page 5 NOTES

- Not Used.
- 2. HV-4395 and HV-4396, Emergency AFW Supply Valves, are full-stroke exercised at refueling outages. These valves provide isolation at the Service Water end of the normally dry emergency crosstie line to the Auxiliary Feedwater System. At least one of the two valves is required to be opened to supply the AFW pumps in the unlikely event that the Class 3 Condensate Storage Tank supply is depleted. The valves are provided with motor operators for convenience only and do not respond automatically to any plant condition. In the event that the valves are required to be opened, ample time exists to reposition the valves manually, if required. Full or part-stroke exercising of these valves during plant operation and cold shutdown is not practicable due to the precautions necessary to prevent introducing lakewater into the normally dry emergency AFW crosstie line and possibly into the steam generators. The exercise test for the valves is a lengthy process requiring draining of the respective Service Water train and subsequent refilling. During this time the Service Water train is unavailable to perform its normal safety functions.
- Relief valves do not perform a specific safety function. Relief valves are used to protect systems/components that perform a specific safety function.

PAGE 1 OF 5

BELOW IS A LEGEND FOR THE EFFECTIVE PAGE LISTING:

Revision 0 Revision 1 Revision 2 Revision 3 Revision 4 Revision 5 Revision 6 Revision 7 Revision 8	Submitted July 1, 1992 February 3, 1993 April 30, 1993 November 19, 1993 October 7, 1994 February 15, 1995 October 5, 1996 October 16, 1996 January 31, 1997
Page	Revision/Date
Record of Changes	October 7, 1994
Cover Sheet	Revision 8
i (Table of Contents)	April 30, 1993
1-1	Revision 2
1-2	Revision 3
1-3	Revision 2
1-4	April 30, 1993
2-1	Revision 0
2-2	Revision 0
2-3	Revision 0
2-4	Revision 0
2-5	Revision 0
Table O. Page 1 of 4 Table O. Page 2 of 4 Table O. Page 3 of 4 Table O. Page 4 of 4 Table O. Notes, Page 1	Revision 0 Revision 0 Revision 2 Revision 0 Revision 2
3-1	Revision 0
3-2	Revision 8
3-3	Revision 0
3-4	Revision 0
3-5	Revision 0
Valve Table Index, Page 1 of 3	Revision 2
Valve Table Index, Page 2 of 3	April 30, 1993
Valve Table Index, Page 3 of 3	April 30, 1993
Table 1. Page 1 of 12 Table 1. Page 2 Table 1. Page 3 Table 1. Page 4 Table 1. Page 5 Table 1. Page 6 Table 1. Page 7	January 31, 1997 January 31, 1997 January 31, 1997 January 31, 1997 January 31, 1997 January 31, 1997 January 31, 1997

EFFECTIVE PAGE LISTING PAGE 2 OF 5

Table 1. Table 1. Table 1. Table 1. Table 1.	Page 9 Page 10 Page 11		January 31, January 31, January 31, Revision 8 Revision 8	1997
Table 2,	Page 3 Page 4 Page 5 Page 6 Page 7 Page 8 Page 9 Page 10 Page 11 Page 12	13	January 31, January 31, January 31, January 31, January 31, January 31, January 31, January 31, Revision 8 Revision 8 January 31, Revision 8	1997 1997 1997 1997 1997 1997 1997 1997
Table 3. Table 3.	Page 1 of Page 2	2	Revision 8 Revision 8	
Table 4.	Page 3 Page 4 Page 5 Page 6 Page 7 Page 8 Page 9 Page 10 Page 11 Page 12 Page 13 Page 14 Page 15	16	January 31, Revision 8 January 31, January 31, Revision 8	1997 1997 1997 1997 1997 1997 1997 1997
Table 5.	Page 3 Page 4 Page 5 Page 6	7	January 31, January 31, January 31, January 31, January 31, Revision 8 Revision 8	1997 1997 1997
Table 6. Table 6. Table 6.		3	Revision 6 October 5, 1 Revision 6	996

PAGE 3 OF 5

Table 7. Page 1 of 6 Table 7. Page 2 Table 7. Page 3 Table 7. Page 4 Table 7. Page 5 Table 7. Page 6	January 31, 1997 January 31, 1997 January 31, 1997 January 31, 1997 Revision 8 Revision 8
Table 8, Page 1 of 6 Table 8, Page 2 of 6 Table 8, Page 3 of 6 Table 8, Page 4 of 6 Table 8, Page 5 of 6 Table 8, Page 6 of 6 Table 8, Notes, Page 1	Revision 0 Revision 0 Revision 0 Revision 0 Revision 0 Revision 0 April 30, 1993
Table 9. Page 1 of 12 Table 9. Page 2 of 12 Table 9. Page 3 of 12 Table 9. Page 4 of 12 Table 9. Page 5 of 12 Table 9. Page 6 of 12 Table 9. Page 7 of 12 Table 9. Page 8 of 12 Table 9. Page 9 of 12 Table 9. Page 10 of 12 Table 9. Page 11 of 12 Table 9. Page 12 of 12 Table 9. Page 12 of 12 Table 9. Notes. Page 1	Revision 2 Revision 2 Revision 2 Revision 2 April 30, 1993 Revision 0
Table 10, Page 1 of 3 Table 10, Page 2 of 3 Table 10, Page 3 of 3 Table 10, Notes, Page 1	Revision 0 Revision 0 Revision 0 Revision 0
Table 11, Page 1 of 5 Table 11, Page 2 Table 11, Page 3 Table 11, Page 4 Table 11, Page 5	January 31, 1997 January 31, 1997 January 31, 1997 Revision 8 Revision 8
Table 12, Page 1 of 2 Table 12, Page 2 of 2	Revision 0 Revision 0
Table 13. Page 1 of 23 Table 13. Page 2 Table 13. Page 3 Table 13. Page 4 Table 13. Page 5 Table 13. Page 6 Table 13. Page 7 Table 13. Page 8 Table 13. Page 9 Table 13. Page 10	January 31, 1997 January 31, 1997

EFFECTIVE PAGE LISTING PAGE 4 OF 5

January 31, 1997 Revision 8 Revision 8 January 31, 1997 January 31, 1997 January 31, 1997 January 31, 1997 Revision 8
January 31, 1997 January 31, 1997 January 31, 1997 Rivision 8 Rivision 8
Revision 0 Revision 0
Revision 0 Revision 0 Revision 0
Revision 2 Revision 0 Revision 0 Revision 0 Revision 0 Revision 0 Revision 2 Revision 2 Revision 2 Revision 2 Revision 2 Revision 0 April 30, 1993 Revision 2
Revision 0 April 30, 1993 April 30, 1993 Revision 2 April 30, 1993 April 30, 1993 Revision 2

EFFECTIVE PAGE LISTING PAGE 5 OF 5

A-12 A-13 A-14 A-15 A-16 A-17 A-18 A-19	April 30, 1993 Revision 2
EPL, Page 1 of 5	January 31. 1997
EPL, Page 2 of 5	January 31. 1997
EPL, Page 3 of 5	January 31. 1997
EPL, Page 4 of 5	January 31. 1997
EPL, Page 5 of 5	January 31. 1997