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

REVISION 5

Prepared By: R.B Mays BB Mays Date: 2-10-95

Approved By: J.L. Barker JL Barker Date: 2/10/95
Manager, Mechanical Engineering

Approved By: Nick Paleologos Date: 2-10-95
Vice President, Nuclear Operations

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
AF-0009	M1-0206-2 (D-1) M2-0206-2 (D-1)	CK/SA	3	3	C	A	C	N/A	CV/Q	N/A	N/A	Non-Safety Makeup Line Isolation
AF-0014	M1-0206-1 (B-2) M2-0206-1 (B-2)	CK/SA	6	3	C	A	O	N/A	CV/Q	N/A	N/A	AFW Flowpath
AF-0024	M1-0206-1 (B-3) M2-0206-1 (B-3)	CK/SA	6	3	C	A	O	N/A	CV/Q	N/A	N/A	AFW Flowpath
AF-0032	M1-0206-1 (B-5) M2-0206-1 (B-5)	CK/SA	8	3	C	A	O	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	C	A	O	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	B	P	O	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	B	P	C	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 2

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
5	1AF-0045	M1-0206-1 (E-4)	CK/SA	3	3	C	A	O	N/A	CV/Q (2)	N/A	N/A	Pump Miniflow Path
	AF-0051	M1-0206-1 (E-3) M2-0206-1 (E-3)	CK/SA	6	3	C	A	O	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	B	P	O	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	B	P	C	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath Boundary
5	1AF-0057	M1-0206-1 (E-3)	CK/SA	3	3	C	A	O	N/A	CV/Q (2)	N/A	N/A	Pump Miniflow Path
	AF-0065	M1-0206-1 (E-2) M2-0206-1 (E-2)	CK/SA	6	3	C	A	O	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	B	P	O	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 3

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
AF-0067	M1-0206-1 (F-2) M2-0206-1 (F-2)	GA/MA	6	3	B	P	C	N/A	N/A	N/A	PIT/ 2YR	AFW Flowpath Boundary
1AF-0069	M1-0206-1 (E-1)	CK/SA	3	3	C	A	O	N/A	CV/Q (2)	N/A	N/A	Pump Miniflow Path
AF-0075	M1-0206 (C-4) M2-0206 (C-4)	CK/SA	4	3	C	A	O/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	M1-0205 (C-4) M2-0206 (C-4)	CK/SA	4	3	C	A	O/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	C	A	O/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	C	A	O/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	C	A	O/C	N/A	CV/CS (1)	N/A	N/A	AFW Flowpath/AFW Flowpath Boundary & AFW Line Break Mitigation & FW Backflow Prevention During Startup

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 4

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-gory	Func-tion	Safety Func. Pos.	Test Parameters/Schedule				Remarks
								Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	
AF-0098	M1-0206 (C-2) M2-0206 (C-2)	CK/SA	4	3	C	A	O/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	C	A	O/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	C	A	O/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	C	A	O	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	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
1AF-0216	M1-0218-1A (E-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
1AF-0217	M1-0218-1A (D-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
1AF-0218	M1-0218-1A (D-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
1AF-0219	M1-0218-1A (C-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 5

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
	1AF-0220	M1-0218-1A (C-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator 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	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator 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 Accumulator to Non-Safety Air Supply Isolation
3	1AF-0223	M1-0218-1A (A-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	2AF-0224	M2-0218-2 (C-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	1AF-0224	M1-0218-1A (A-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	2AF-0223	M2-0218-2 (C-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	1AF-0226	M1-0218-1A (B-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	2AF-0227	M2-0218-2 (B-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	1AF-0227	M1-0218-1A (B-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	2AF-0226	M2-0218-2 (B-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 6

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-gory	Func-tion	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
	AF-0228	M1-0218-1A (A-4) M2-0218-2 (D/E-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator 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	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
3	1AF-0230	M1-0218-1A (B-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	2AF-0231	M2-0218-2 (F-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	1AF-0231	M1-0218-1A (B-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	2AF-0230	M2-0218-2 (F-4)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator 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	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
	AF-0233	M1-0218-1 (F-2) M2-0218-1 (F-2)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator 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	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 7

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
AF-0235	M1-0218-1 (F-1) M2-0218-1 (D-1)	CK/SA	1/2	3	A/C	A	C	LT/2YR RR V3	CV/Q RR V2	N/A	N/A	Safety-Related Air Accumulator to Non-Safety Air Supply Isolation
2AF-0236	M2-0218-2 (F-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 Accumulator to Non-Safety Air Supply Isolation
2AF-0237	M2-0218-2 (E-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 Accumulator to Non-Safety Air Supply Isolation
2AF-0238	M2-0218-2 (E-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 Accumulator to Non-Safety Air Supply Isolation
2AF-0239	M2-0218-2 (D-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 Accumulator to Non-Safety Air Supply Isolation
2AF-0240	M2-0218-2 (D-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 Accumulator to Non-Safety Air Supply Isolation
2AF-0291	M2-0218-2 (F-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 Accumulator to Non-Safety Air Supply Isolation
PV-2453A	M1-0206 (B-4) M2-0206 (B-4)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
PV-2453B	M1-0206 (B-2) M2-0206 (B-2)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 8

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
PV-2454A	M1-0206 (B-1) M2-0206 (B-1)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
PV-2454B	M1-0206 (B-5) M2-0206 (B-5)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/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	B	A	O/C	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/AO	2	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	Pump Miniflow Path/AFW Flowpath Boundary
HV-2459	M1-0206 (B-4) M2-0206 (B-4)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
HV-2460	M1-0206 (B-3) M2-0206 (B-3)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation
HV-2461	M1-0206 (B-2) M2-0206 (B-2)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/Q	PIT/ 2YR	AFW to SG Flowpath/AFW to Faulted SG Flow Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 9

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
	HV-2462	M1-0206 (B-5) M2-0206 (B-5)	GL/AO	3	3	B	A	O/C	N/A	MT/Q	FO/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/AO	3	3	B	P	C	N/A	N/A	N/A	PIT/ 2YR	Non-Safety Makeup Line Isolation
2	HV-2480	M1-0206-1 (B-2) M2-0206-1 (B-2)	GA/MO	6	3	B	A	O	N/A	MT/Q	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath
	HV-2481	M1-0206-1 (B-4) M2-0206-1 (B-4)	GA/MO	6	3	B	A	O	N/A	MT/Q	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath
	HV-2482	M1-0206-1 (B-4) M2-0206-1 (B-4)	GA/MO	8	3	B	A	O	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	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	Condensate System to Condensate Storage Tank Isolation to Preclude Tank Overpressurization

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 10

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
HV-2485	M1-0206-2 (D-4) M2-0206-2 (D-4)	BF/MO	12	3	B	A	C	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	B	A	C	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	B	A	C	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/MO	4	2	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2492B	M1-0206 (D-2) M2-0206 (D-2)	GA/MO	4	2	B	A	C	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	B	A	C	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	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 1 - AUXILIARY FEEDWATER
PAGE 11

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
HV-2494A	M1-0206 (D-5) M2-0206 (D-5)	GA/MO	4	2	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation
HV-2494B	M1-0206 (D-5) M2-0206 (D-5)	GA/MO	4	2	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	Containment Isolation & AFW to Faulted SG Flow Isolation

NOTES

1. AF-0075, AF-0078, 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.

2

5 2. The check valve internals for 1AF-0045, 1AF-0057, and 1AF-0069 are scheduled for removal during the fourth refueling outage for Unit 1. After Minor Modification 93-443 has been accepted by operations, testing is no longer required.

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
1	XCS-0037	M1-0257 (C-3)	CK/SA	3/4	3	C	A	O	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
	XCS-0039	M1-0257 (C-5)	CK/SA	3/4	3	C	A	O	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
	XCS-0041	M1-0257 (C-4)	CK/SA	3/4	3	C	A	O	N/A	CV/Q	N/A	N/A	Pump Miniflow Path
	XCS-0044	M1-0257 (C-6)	CK/SA	3/4	3	C	A	O	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	B	P	C	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath Boundary
	FCV-0111A	M1-0255-2 (C-2) M2-0255-2 (C-2)	GL/AO	2	3	B	P	C	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath Boundary
	FCV-0111B	M1-0255 (G-3) M2-0255-2 (E-2)	DA/AO	2	2	B	P	C	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath Boundary & Boron Dilution Flowpath Isolation (during Mode 6)

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 2

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
LCV-0112B	M1-0255 (E-6) M2-0254 (C-4)	GA/MO	4	2	B	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
LCV-0112C	M1-0255 (D-6) M2-0254 (C-4)	GA/MO	4	2	B	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
LCV-0112D	M1-0255 (C-5) M2-0254 (B-5)	GA/MO	8	2	B	A	O/C	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	B	A	O/C	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/AO	3	1	B	A	C	N/A	MT/CS (2)	FC/CS	PIT/ 2YR	Reactor Coolant Pressure Boundary
LCV-0460	M1-0253-A (B-4) M2-0253 (A-3)	GL/AO	3	1	B	A	C	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	A	A	C	LTJ/TS	MT/CS (3)	N/A	PIT/ 2YR	Containment Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 3

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
8104	M1-0255-2 (F-5) M2-0255-2 (B-3)	GL/MO	2	2	B	A	O	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	O/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	B	A	O/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	B	P	C	N/A	N/A	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8110	M1-0255 (B-2) M2-0254 (A-2)	GL/MO	2	2	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Flowpath Boundary
8111	M1-0255 (B-2) M2-0254 (A-2)	GL/MO	2	2	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Flowpath Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 4

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule				Remarks
								Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	
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	B	A	C	N/A	MT/CS (4)	FC/CS	PIT/ 2YR	Reactor Coolant Pressure Boundary
8146	M1-0253-A (C-5) M2-0255 (F-3)	GL/AO	3	2	B	P	O	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath
8147	M1-0253-A (C-5) M2-0255 (F-3)	GL/AO	3	2	B	P	O	N/A	N/A	N/A	PIT/ 2YR	Boration Flowpath
8152	M1-0253-A (F-2) M2-0253 (F-3)	GL/AO	3	2	A	A	C	LTJ/TS	MT/CS (2)	FC/CS	PIT/ 2YR	Containment Isolation
8153	M1-0253-A (E-1) M2-0253 (B-5)	GL/AO	1	1	B	A	C	N/A	MT/Q	FC/Q	PIT/ 2YR	Reactor Coolant Pressure Boundary
8154	M1-0253-A (F-1) M2-0253 (A-5)	GL/AO	1	1	B	A	C	N/A	MT/Q	FC/Q	PIT/ 2YR	Reactor Coolant Pressure Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 6

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Cate-gory	Func-tion	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
2	HV-8220	M1-0255 (E-2) M2-0254 (D-2)	GA/SO	1	2	B	A	C	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)
2	HV-8221	M1-0255 (E-2) M2-0254 (D-2)	GA/SO	1	2	B	A	C	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)
5	CS-8350A	M1-0253 (D-4) M2-0255-1 (C-6)	CK/SA	2	1	C	A	C	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
5	CS-8350B	M1-0253 (D-4) M2-0255-1 (G-6)	CK/SA	2	1	C	A	C	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
5	CS-8350C	M1-0253 (D-4) M2-0255-1 (G-3)	CK/SA	2	1	C	A	C	N/A	CV/CS (3)	N/A	N/A	Reactor Coolant Pressure Boundary
5	CS-8350D	M1-0253 (D-4) M2-0255-1 (C-3)	CK/SA	2	1	C	A	C	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	B	A	C	N/A	MT/CS (3)	N/A	PIT/ 2YR	Containment Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 5

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
8160	M1-0253-A (E-2) M2-0253 (E-3)	GL/AO	3	2	A	A	C	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	O/C	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	B	A	C	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)	GL/SO	1	2	B	A	C	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/SO	1	2	B	A	C	N/A	MT/Q	FC/Q	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of PD Pump Suction Stabilizer Gas Supply from Charging Pumps' Suction Header
8210B	M1-0255-1 (D-1) M2-0254 (E-3)	GL/SO	1	2	B	A	C	N/A	MT/Q	FC/Q	PIT/ 2YR	ECCS Flowpath Boundary & Isolation of PD Pump Suction Stabilizer Gas Supply from Charging Pumps' Suction Header

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 7

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

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 8

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
5	CS-8367D	M1-0253 (D-4) M2-0255-1 (C-3)	CK/SA	2	1	C	A	C	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	C	A	C	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	C	A	C	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	C	A	C	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	C	A	C	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	C	A	C	N/A	CV/CS (4)	N/A	N/A	Reactor Coolant Pressure Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 9

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
2	8378A	M1-0253-A (B-5) M2-0255 (G-3)	CK/SA	3	1	C	A	O	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
5								C	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
2	8378B	M1-0253-A (B-5) M2-0255 (G-3)	CK/SA	3	1	C	A	O	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
5								C	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
2	8379A	M1-0253-A (B-5) M2-0255 (G-3)	CK/SA	3	1	C	A	O	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
5								C	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
2	8379B	M1-0253-A (B-5) M2-0255 (G-3)	CK/SA	3	1	C	A	O	N/A	CV/Q (8)	N/A	N/A	Boration Flowpath
5								C	N/A	CV/CS (2)	N/A	N/A	Reactor Coolant Pressure Boundary
	8381	M1-0253-A (E-3) M2-0255 (E-2)	CK/SA	3	2	A/C	A	O	N/A	CV/Q	N/A	N/A	Boration Flowpath
								C	LTJ/TS	CV/CS (2)	N/A	N/A	Containment Isolation

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 10

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
CS-8442	M1-0255-2 (F-5) M2-0255-2 (B-3)	CK/SA	2	2	C	A	O	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	C	A	O/C	N/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	C	A	C	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	C	A	C	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	O	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	C	A	O	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

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 11

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
	CS-8487	M1-0257 (C-4) M1-0257 (C-6)	CK/SA	2	3	C	A	O/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	C	A	C	N/A	CV/Q	N/A	N/A	ECCS Flowpath Boundary
2	8510A	M1-0255-1 (D-4) M2-0254 (F-5)	RE/SA	1-1/2 X 2	2	C	A	O/C	N/A	SRV (9)	N/A	N/A	High Head Safety Injection Pump Miniflow Path/ECCS Recirculation Flowpath Boundary
2	8510B	M1-0255-1 (D-4) M2-0254 (F-6)	RE/SA	1-1/2 X 2	2	C	A	O/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	B	A	O/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	B	A	O/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	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 4 - CHEMICAL and VOLUME CONTROL
PAGE 12

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
8512B	M1-0255-1 (D-4) M2-0254 (F-5)	GL/MO	2	2	B	A	C	N/A	MT/Q	N/A	PIT/ 2YR	ECCS Recirculation Flowpath Boundary
8546	M1-0255 (C-6) M2-0254 (C-5)	CK/SA	8	2	C	A	O	N/A	PS/CS CV/RF (7)	N/A	N/A	ECCS Injection Flowpath & Boration Flowpath
							C	N/A	CV/CS (7)	N/A	N/A	ECCS Recirculation Flowpath Boundary

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. LCV-0112B & C cannot be exercised during plant operation as discussed above.

2. 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.

NOTES

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.

NOTES

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.

6. 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.

2 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 relied 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.

NOTES

2 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.

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

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
4	SW-0016	M1-0233-A (C-3) M2-0233-A (C-3)	CK/SA	10	3	C	A	O	N/A	CV/Q (3)	N/A	N/A	Service Water Flowpath
4	SW-0017	M1-0233-A (C-5) M2-0233-A (C-5)	CK/SA	10	3	C	A	O	N/A	CV/Q (3)	N/A	N/A	Service Water Flowpath
4	2SW-0084	M2-0233 (F-4)	CK/SA	1	3	C	A	O	N/A	CV/Q (3)	N/A	N/A	Service Water Flowpath
	2SW-0085	M2-0233 (F-3)	CK/SA	1	3	C	A	O	N/A	CV/Q (3)	N/A	N/A	Service Water Flowpath
	SW-0373	M1-0233 (D-3) M2-0233 (B-4)	CK/SA	24	3	C	A	O/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	C	A	O/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)
3	2SW-0388	M2-0234 (F-1)	CK/SA	10	3	C	A	O	N/A	CVD/RF (1)	N/A	N/A	AFW Pump Emergency Supply Flowpath

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

	Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule				Remarks
									Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	
3	2SW-0389	M2-0234 (F-6)	CK/SA	10	3	C	A	O	N/A	CVD/RF (1)	N/A	N/A	AFW Pump Emergency Supply Flowpath
	HV-4286	M1-0233 (E-2) M2-0233 (D-3)	BF/MO	24	3	B	A	O/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	B	A	O/C	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	B	A	O	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	B	A	O	N/A	MT/Q	N/A	PIT/ 2YR	Service Water Flowpath
	HV-4395	M1-0234 (G-6) M2-0234 (G-6)	BF/MO	10	3	B	A	O	N/A	MT/RF (2)	N/A	PIT/ 2YR	AFW Pump Emergency Supply Flowpath

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1 & 2
INSERVICE VALVE TESTING PLAN
TABLE 14 - SERVICE WATER
PAGE 3

Valve Number	Flow Diagram (Coord.)	Valve/ Actuator Type	Size	Code Class	Category	Function	Safety Func. Pos.	Test Parameters/Schedule: Leak Test	Exercise Test	Fail Safe Test	Position Indicator Test	Remarks
HV-4396	M1-0234 (G-1) M2-0234 (G-1)	BF/MO	10	3	B	A	O	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	C	A	O/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	C	A	O/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	C	A	O/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	C	A	O/C	N/A	SRV/ 10YR	N/A	N/A	Vent Path (for water hammer prevention)/Flowpath Boundary

NOTES

3 1. 2SW-0388 and 2SW-0389, Emergency AFW Supply Check Valves, are disassembled every refueling outage to verify operability. At least one of the two valves is required to open to supply the AFW pumps in the unlikely event that the Class 3 Condensate Storage Tank supply is depleted. Full or part-stroke exercising these valves with flow is not practicable because such testing would necessarily introduce lakewater into the normally 4 dry emergency crosstie line to the Auxiliary Feedwater System and ultimately could contaminate the steam generators. The check valve internals for 2SW-0388 and 2SW-0389 are scheduled for removal during the first refueling outage for Unit 2. After Minor Modification 93-497 has been accepted by operations, testing is no longer required. The test requirements remain valid until the valve internals are removed.

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.

4 3. The check valve internals for 2SW-0016, 2SW,0017, 2SW-0084, and 2SW-0085 are scheduled for removal during the first refueling outage for Unit 2. After Minor Modifications 93-567 and 93-568 have been accepted by operations, testing is no longer required. The test requirements remain valid 5 until the valve internals are removed. The check valve internals for 1SW-0016 and 1SW-0017 are scheduled for removal during the fourth refueling outage for Unit 1. After Minor Modification 93-442 has been accepted by operations, testing is no longer required.

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

EFFECTIVE PAGE LISTING
PAGE 1 OF 5

BELOW IS A LEGEND FOR THE EFFECTIVE PAGE LISTING:

Revision 0	Submitted July 1, 1992
Revision 1	February 3, 1993
Revision 2	April 30, 1993
Revision 3	November 19, 1993
Revision 4	October 7, 1994
Revision 5	February 15, 1995

Page	Revision/Date
Record of Changes	October 7, 1994
Cover Sheet	Revision 5
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
Table 0, Page 1 of 4	Revision 0
Table 0, Page 2 of 4	Revision 0
Table 0, Page 3 of 4	Revision 2
Table 0, Page 4 of 4	Revision 0
Table 0, Notes, Page 1	Revision 2
3-1	Revision 0
3-2	Revision 0
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	February 15, 1995
Table 1, Page 2	Revision 5
Table 1, Page 3	Revision 5
Table 1, Page 4	February 15, 1995
Table 1, Page 5	February 15, 1995
Table 1, Page 6	February 15, 1995
Table 1, Page 7	February 15, 1995
Table 1, Page 8	February 15, 1995
Table 1, Page 9	February 15, 1995

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

EFFECTIVE PAGE LISTING
PAGE 2 OF 5

Table 1, Page 10	February 15, 1995
Table 1, Page 11	February 15, 1995
Table 1, Page 12	Revision 5
Table 2, Page 1 of 10	Revision 0
Table 2, Page 2 of 10	Revision 3
Table 2, Page 3 of 10	Revision 0
Table 2, Page 4 of 10	April 30, 1993
Table 2, Page 5 of 10	Revision 2
Table 2, Page 6 of 10	Revision 2
Table 2, Page 7 of 10	Revision 0
Table 2, Page 8 of 10	Revision 0
Table 2, Page 9 of 10	Revision 0
Table 2, Page 10 of 10	Revision 0
Table 2, Notes, Page 1	Revision 0
Table 2, Notes, Page 2	Revision 0
Table 3, Page 1 of 1	Revision 2
Table 4, Page 1 of 16	February 15, 1995
Table 4, Page 2	February 15, 1995
Table 4, Page 3	February 15, 1995
Table 4, Page 4	February 15, 1995
Table 4, Page 5	February 15, 1995
Table 4, Page 6	Revision 5
Table 4, Page 7	Revision 5
Table 4, Page 8	Revision 5
Table 4, Page 9	Revision 5
Table 4, Page 10	February 15, 1995
Table 4, Page 11	February 15, 1995
Table 4, Page 12	February 15, 1995
Table 4, Page 13	February 15, 1995
Table 4, Page 14	February 15, 1995
Table 4, Page 15	February 15, 1995
Table 4, Page 16	February 15, 1995
Table 5, Page 1 of 6	Revision 0
Table 5, Page 2 of 6	Revision 0
Table 5, Page 3 of 6	Revision 0
Table 5, Page 4 of 6	Revision 3
Table 5, Page 5 of 6	Revision 0
Table 5, Page 6 of 6	Revision 0
Table 5, Notes, Page 1	Revision 0
Table 6, Page 1 of 2	Revision 0
Table 6, Page 2 of 2	Revision 0
Table 7, Page 1 of 4	Revision 0
Table 7, Page 2 of 4	April 30, 1993

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

EFFECTIVE PAGE LISTING
PAGE 3 OF 5

Table 7, Page 3 of 4	April 30, 1993
Table 7, Page 4 of 4	April 30, 1993
Table 7, Notes, Page 1	Revision 0
Table 8, Page 1 of 6	Revision 0
Table 8, Page 2 of 6	Revision 0
Table 8, Page 3 of 6	Revision 0
Table 8, Page 4 of 6	Revision 0
Table 8, Page 5 of 6	Revision 0
Table 8, Page 6 of 6	Revision 0
Table 8, Notes, Page 1	April 30, 1993
Table 9, Page 1 of 12	Revision 2
Table 9, Page 2 of 12	Revision 2
Table 9, Page 3 of 12	Revision 2
Table 9, Page 4 of 12	Revision 2
Table 9, Page 5 of 12	April 30, 1993
Table 9, Page 6 of 12	April 30, 1993
Table 9, Page 7 of 12	April 30, 1993
Table 9, Page 8 of 12	April 30, 1993
Table 9, Page 9 of 12	April 30, 1993
Table 9, Page 10 of 12	April 30, 1993
Table 9, Page 11 of 12	April 30, 1993
Table 9, Page 12 of 12	April 30, 1993
Table 9, Notes, Page 1	Revision 0
Table 10, Page 1 of 3	Revision 0
Table 10, Page 2 of 3	Revision 0
Table 10, Page 3 of 3	Revision 0
Table 10, Notes, Page 1	Revision 0
Table 11, Page 1 of 3	Revision 0
Table 11, Page 2 of 3	Revision 0
Table 11, Page 3 of 3	Revision 2
Table 11, Notes, Page 1	Revision 2
Table 12, Page 1 of 2	Revision 0
Table 12, Page 2 of 2	Revision 0
Table 13, Page 1 of 17	Revision 0
Table 13, Page 2 of 17	Revision 2
Table 13, Page 3 of 17	Revision 3
Table 13, Page 4 of 17	Revision 0
Table 13, Page 5 of 17	Revision 4
Table 13, Page 6 of 17	Revision 2
Table 13, Page 7 of 17	Revision 2
Table 13, Page 8 of 17	Revision 0
Table 13, Page 9 of 17	Revision 0
Table 13, Page 10 of 17	Revision 2
Table 13, Page 11 of 17	Revision 2

EFFECTIVE PAGE LISTING
PAGE 4 OF 5

Table 13, Page 12 of 17	Revision 2
Table 13, Page 13 of 17	Revision 0
Table 13, Page 14 of 17	Revision 4
Table 13, Page 15 of 17	Revision 4
Table 13, Page 16 of 17	Revision 0
Table 13, Page 17 of 17	Revision 0
Table 13, Notes, Page 1	Revision 2
Table 13, Notes, Page 2	April 30, 1993
Table 13, Notes, Page 3	Revision 4
Table 13, Notes, Page 4	Revision 4
Table 14, Page 1 of 4	February 15, 1995
Table 14, Page 2	February 15, 1995
Table 14, Page 3	February 15, 1995
Table 14, Page 4	Revision 5
Table 15, Page 1 of 1	Revision 0
Table 15, Notes, Page 1	Revision 0
Table 16, Page 1 of 2	Revision 0
Table 16, Page 2 of 2	Revision 0
Table 16, Notes, Page 1	Revision 0
Table 17, Page 1 of 12	Revision 2
Table 17, Page 2 of 12	Revision 2
Table 17, Page 3 of 12	Revision 0
Table 17, Page 4 of 12	Revision 0
Table 17, Page 5 of 12	Revision 0
Table 17, Page 6 of 12	Revision 0
Table 17, Page 7 of 12	Revision 0
Table 17, Page 8 of 12	Revision 2
Table 17, Page 9 of 12	Revision 2
Table 17, Page 10 of 12	Revision 2
Table 17, Page 11 of 12	Revision 2
Table 17, Page 12 of 12	Revision 0
Table 17, Notes, Page 1	April 30, 1993
Table 17, Notes, Page 2	Revision 2
A-1	Revision 0
A-2	April 30, 1993
A-3	April 30, 1993
A-4	Revision 2
A-5	April 30, 1993
A-6	April 30, 1993
A-7	Revision 2
A-8	April 30, 1993
A-9	Revision 2
A-10	April 30, 1993
A-11	Revision 2
A-12	April 30, 1993
A-13	Revision 2

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

EFFECTIVE PAGE LISTING
PAGE 5 OF 5

A-14	April 30, 1993
A-15	Revision 2
A-16	April 30, 1993
A-17	Revision 2
A-18	April 30, 1993
A-19	Revision 2
EPL, Page 1 of 5	February 15, 1995
EPL, Page 2 of 5	February 15, 1995
EPL, Page 3 of 5	February 15, 1995
EPL, Page 4 of 5	February 15, 1995
EPL, Page 5 of 5	February 15, 1995